

ENIGMA 2000 NEWSLETTER



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Expanded Communications Satellite Surveillance and Intelligence Activities utilising Multi-beam Antenna Systems [Torus]

<https://nautilus.org/wp-content/uploads/2015/05/Torus-SATCOM.pdf>

**ISSUE 104
January 2018**

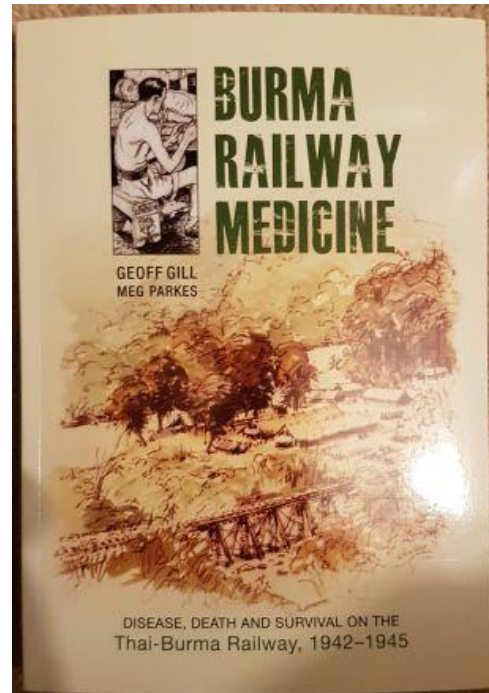
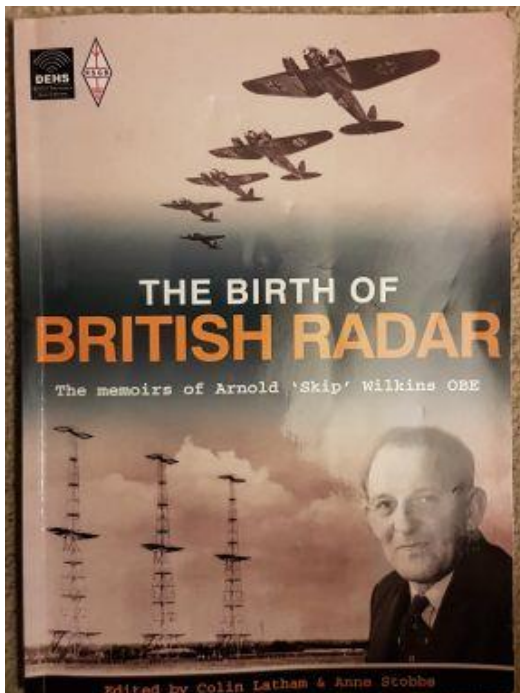
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Editorial

The intro to En103 which featured two book prompted replies from members. The Gilnahirk book brought an interesting discussion via cell phone and email and the late Reg Twigg's account of his experiences brought a response concerning the work done by medical staff, who deprived of then modern drugs and instruments made a worthwhile account of their knowledge and ingenuity to provide a second to none health service in man's worst conditions.



The first book deals with Britain's early radar and attempts using LF and the climb to higher frequencies and the problems therein. Having known one of the pioneers, Derrick Power, the book was interesting, especially with my link to a certain Professor Blackett. Reading the book one soon realises it is the memoirs of one who took the thoughts of the person credited with the development of Radar [Watson Wood] and who actually made it work. One gets the recognition, the other the OBE, correctly known in this case as 'Other Bugger's Efforts.'

The second book, 'Burma Railway Medicine', as previously mentioned deals with the way in which Doctors and medical staffs, all PoWs of the Japanese Imperial Army, dealt with the health matters facing those taken prisoner, forced to work as slave labour, beaten and treated appallingly and whose life expectancy was days. The authors point out that whilst medical help was paramount in maintaining life, some given treatment who had a better chance of recovery died whilst those with little hope but who possessed the will to live, the do it or be damned ideology survived. Amputation, Beri beri, rice balls, dysentery, tropical ulcers, venereal disease or not, yaws and other horrors are all here And that includes dealing with stoma's and performing craniotomies in a jungle operating theatre. Not a book of horrors but a decent and reasonable account of medical care from first principles using modern knowledge and which has spawned modern research. It is notable that in Reg Twigg's book seen in En103 he received instructions on how to deal with a tropical ulcer on his leg. He also stated that he was one of the 'bloody minded.' He was going to survive come what may and he did. Thank you to the members who brought both these books to my notice

Propagation, or lack of it, yet again.

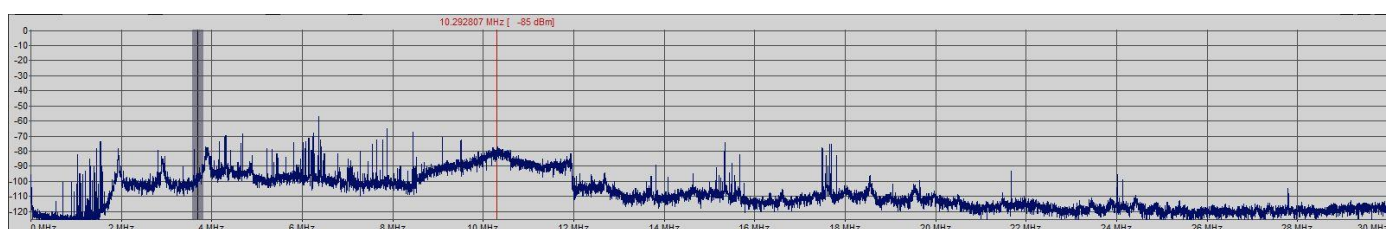
Once again monitoring has been blessed with poor propagation causing some very severe effects on radio. Even stations known to be strong and used for markers, such as VOLMET transmissions, are grossly affected.

As if the propagational problems were not bad enough a problem with our group input, thought to be a server problem with Yahoo, stopped the posting of logs for three days and eventually returned on 24th November.

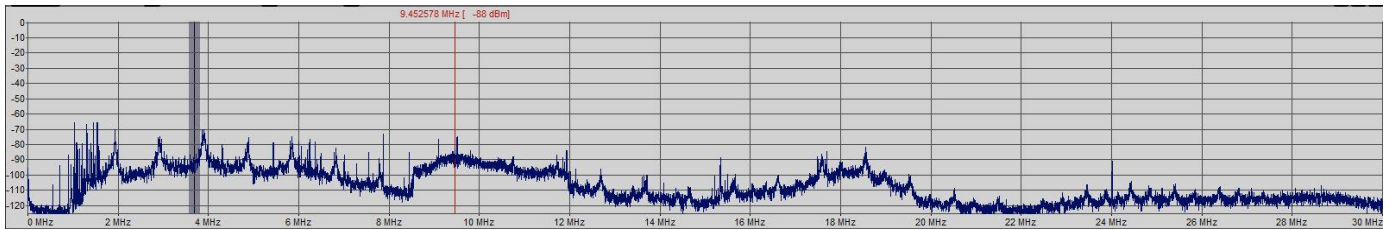
Noise and other problems

If anyone has thoughts on direct monitoring rather than a remote SDR somewhere then the reasons for using a remote radio are more than obvious when looking at the noise on the shortwave spectrum at PLdn's QTH and thought to be noise from the local BT overhead distribution. There are two antennas at PLdn's QTH, one vertical and one horizontal. The usual teachings tell us that the vertical is more noisy than the horizontal antenna. Well, thanks to the distributed VDSL[or whatever it is] crap on the telephones lines it's a different kind of physics here.

A perusal of spectral scans for each of my antennae shows why:



Vertical Antenna

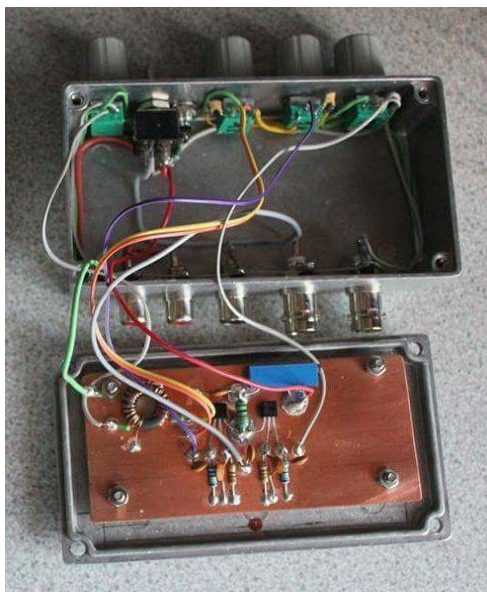
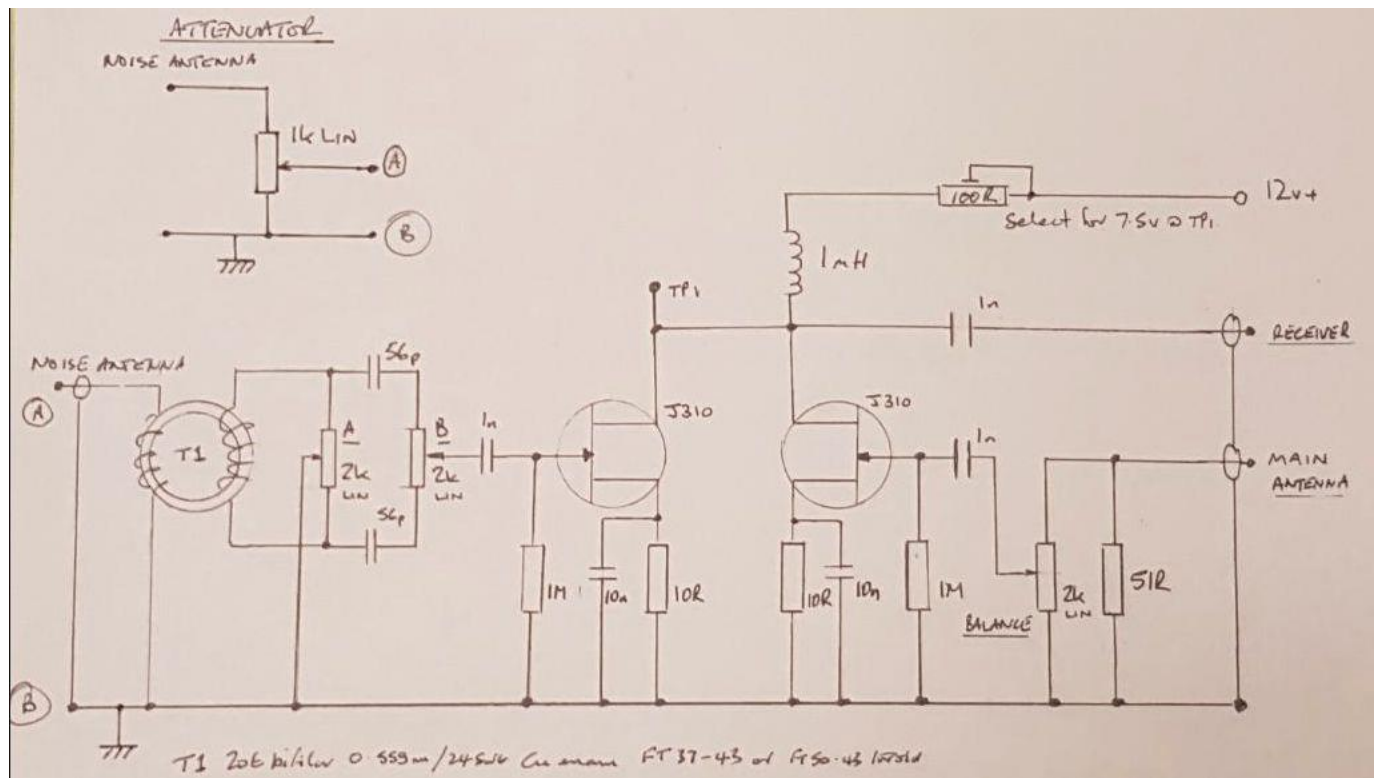


Horizontal Antenna

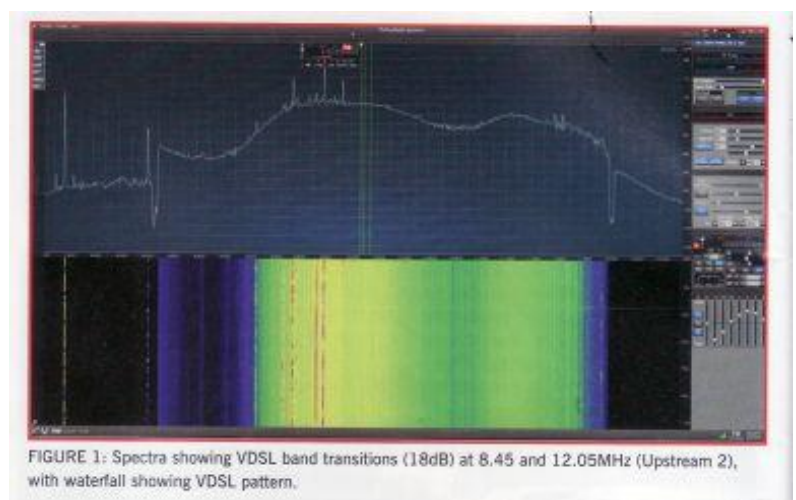
This situation is not peculiar to PLdn; it seems almost UK nation wide thanks to a survey carried out by the RSGB. Their ideas for rectification: put notches in the amateur bands and protecting 3.7 to 3.8MHz, notching 30M and not forgetting 20M. So, that's it folks, bummer the SWL's or those with a wider radio interest; you're seriously on your own OFCOM seem to do nothing in defence of the shortwave, but then again, it must be the dictating influence of big business and they all have MPs as silent directors.

At least we can listen to one amateur radio contest after another once the rest of the SW is totally ruined. "You are 59, Number 00001; can I have your call sign again?" Less interesting than watching paint dry or collecting car registration plates.

Use of phase noise removers do work though; either buying or making your own and here's the circuit I use:



Finished unit in a diecast box It works!

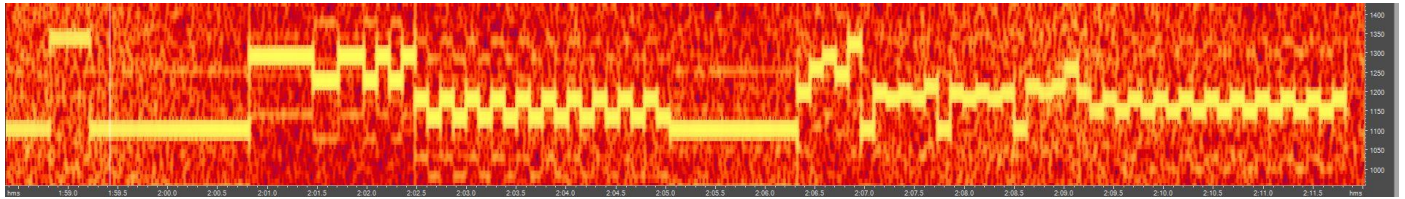


Taken from RSGB's RADCOM, with thanks.

Note the curve is very similar to the observations at PLdn's QTH

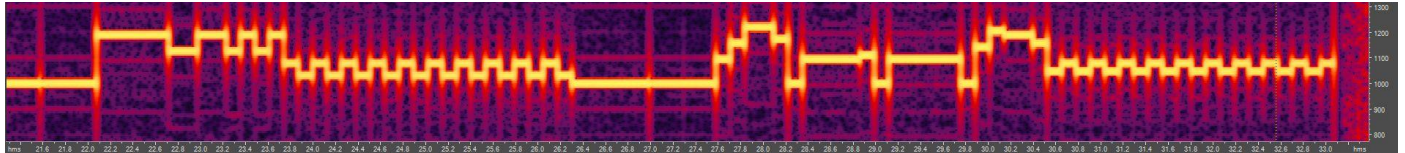
Polytone changes observed.

Tone value duration changed in null message sent 0800/0820/0840z 10278/12178/13478kHz 11th December 2017. The first time this practice was noticed was in the message indicator of the XPA series and only when the 000 null message sequence is used. One wonders if new software will be/has been or is even necessary to decode when used by the intended recipients.



XPA2 r 1400z 08/12/2017 04638 00001 000001 ... 10140

Normal sending, with zero repeat zero repeat sequences as required. 00001 00000 [XPA2 r 1400z 08/12 04638 00001 000001 ... 10140]



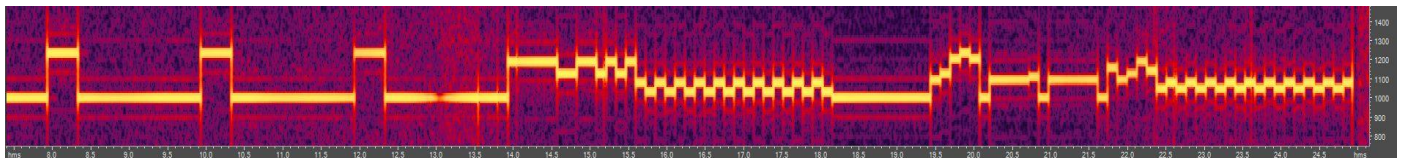
XPA2 0800z 11/12/2017 04885 00001 00000 ... 27553

Modified sending with tone value duration for zero is x4 then 1 and tone value duration for zero is x5 [XPA2 0800z 11/12 04885 00001 00000 ... 27553]

The serial number on this last XPA2 transmission is 04885 Note the tone value duration for 8 is x2

Making rudimentary measurements suggests a single tone value is 125ms; the double 8 [x2] measures ~250ms, the x4 measures 509ms and the x5 produces a duration of 633ms. Interestingly the expected ending value of 10140 has become 27553.

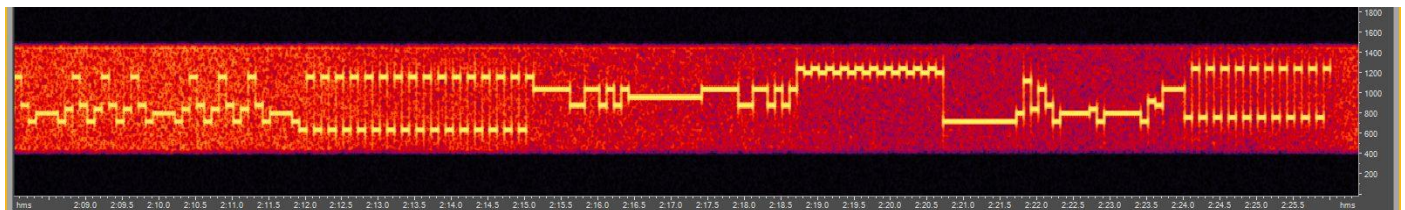
The null message sent on 13/12 produced 02927 00001 00000 **40263** as can be seen below:



XPA2 13/12: 02927 00001 00000 ... 40263 Nice strong signals

Somewhat interesting to see if this latest modification is prominent in other XPA2 sendings. As for the schedule of this latest find [thanks Ary] an open mind is being kept as to whether this is a new schedule or a mere change of frequencies/times of the 'p' schedule.

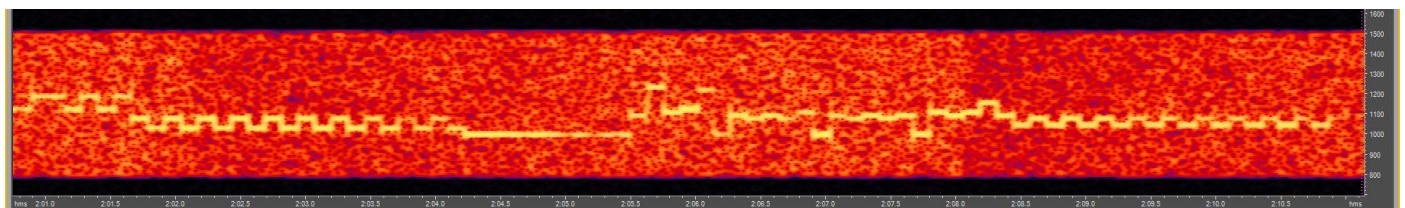
After staying up to see the New Year in the XPA c sendings on 9108, 10908 and 12208kHz were monitored. The best was the third slot at 0740z, the others badly influenced by the noise generated by BT's VDSL scourge [see previous piece]. It seems for 2018 the XPA format has changed also. Apart from the long tone seen for 000 it is now used as the previously described XPA2:



XPA c 12208kHz 0740z 01012018 192 000 08162 00001 00000 ... 32666

Note long tones seen on 01012018 [prev only message indicator] and changed last group Previously 10140. Note long tones on 666 First noticed 25/12/2017 706 000 02548 00001 00000 ... 37655 [multiple tones indicated here].

It is interesting the value of the only valid group in the null transmissions seems to have changed from the regular 10140 to anything but. I had for years wondered if that was an exploitable value to assist with a decode; now it seems things may have become somewhat harder in the intel world.



XPA2 t 13472kHz 0700z 02/01/2018 09128 00001 00000 ... 10140

Finally, the first intercepted XPA2 schedule [t] of 2018 by myself has yet to show the changes seen elsewhere.

[Observations from PLdn 2018]

Other number station news

The number station scene continues much as always; the E07 schedules using amplitude modulation, Thursday 2110z start and Sunday + Wednesday 1800z start, still show up with low levels of audio as has been the case for ages. Much better copy from those E07s using SSB. Makes you wonder why they bother at all with AM when they have SSB transmitters available.

The only two regular S06 Russian Man schedules, first + third Fridays and first + third Saturdays in the month, have been showing up with the four minutes of “no message” in November and December.

The Thursday and Friday evening UK time E06 and G06 schedules have shown a little bit of originality with their 5F group content in November and December, not using that message of fifty-two 5Fs and a decode key of 149 which has been transmitted so many times over the previous year and more, group counts of 57, 58 and 77 have been heard.

Nothing heard from the Saturday 1200 UTC E06 which showed up on several occasions in 2017, apparently at random and not following any fixed schedule, although it had been noted in the past that on those Saturdays when E06 did not appear an FSK signal with a distinct characteristic was heard on the same frequency and such a signal was logged at 1200z on Saturdays in December on 15623 kHz.

The use of lower frequencies in the winter months brings with it the problem of susceptibility to local RF interference, just a little bit worse than usual as we move through the Christmas season with flashing light displays on the outside of several neighbouring properties contributing to the general level of QRM, the modern LED lights with their electronic control circuitry doing their bit to make listening on the short waves a pain [*see article above*].

Not Number Station but possibly interesting:-

Return of “Mystery Beacon” on 6398 – point something – kHz; a Morse station sending “JO62SK common and precious JO62SK 52W dipole”, is back – or perhaps it has never been away. Heard regularly earlier in the year it appeared to have gone during the summer months, not found when looked for on several occasions but perhaps it was a victim of unfavourable seasonal propagation. Whatever the case, it was heard again on 3-November-17 quite by chance and has been a reasonable signal on most days since.

There used to be a similar signal on 10237 but with 5 watts, but this one has not been heard for some time.

Shannon VOLMET on 5505 suddenly a much weaker signal; this SSB station with continuous weather information for various airports in western Europe has been around for years, usually a good signal for a large part of the day and useful as an indicator to conditions in this part of the short-wave spectrum. However, when a check of this station was made on several days in the middle of November the signal was very weak, barely audible. The thought occurred that there might be some ongoing problem with the ionosphere which would soon pass, but it didn't. The other possible explanations might be a fault with the transmitter, not very likely as it would soon be noticed by the users, reported and fixed, or a great reduction in power, also not likely; perhaps they are using a more directional antenna which radiates the greater part of the signal out to the west towards the Atlantic, which is after all where the users of this service are likely to be located and we are now receiving the signal in the UK “off the back of the beam”.

Whatever the case, Shannon is still a very weak signal as of mid-December. Everything else in this part of the spectrum, including the fast-talking YL on 5450 and the 60 metre amateur stations are received much as always.

Strong CW on 12152 kHz:- first noticed on 27-Nov-17, very strong Morse on a frequency inside the 25 metre broadcast band, numbers and letters, appeared to be hand keyed, often finishing with a “K” which suggests two-way communication but no reply heard, so perhaps split-frequency working. Also on several occasions paused and sent several “dits”, presumably meaning “error” before proceeding. Still going strong in December, heard from time to time in the third week of that month. Update:- still active in the last days of December, CW on 12152 heard at 0851 UTC on Thursday the 28th.

Morse station “4XZ”, said to be located in Israel, on 6607 kHz received with reasonable strength in the late afternoon / early evening, from about 1630 UTC onwards; also on a parallel frequency, 4331, considerably weaker, spends a great deal of time sending, “VVV DE 4XZ 4XZ = =”.

[Thanks PoSW]

Morse Stations

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

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

Morse - Number Stations

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

Variations in Format

In recent months we have seen two additional formats used, as well as the standard format that has been in use for many years. The changes are to the start & ending sequences of the transmission, the format of the actual 30 group message is unchanged.

Here are some examples of the formats in use:

Standard Format: 197 (R4m) 117 117 30 30 == 93447 20478 == 117 117 30 30 000

Variant Format 1: 197 (R4m) 147/30 147/30 78902 ... 86083 147/30 000

Variant Format 2: 197 (R4m) 521=30 == 521=30 == 46547 ... 88305 = 521=30 == 521=30 0=0=0

November 2017:

4490	2000z	02 Nov	'197'	946 30 ==	83348...	...LG 98542 ==	Strong, fast. Excellent CW. Errors noted grp13	BR/CB/HFD	THU
	2000z	07 Nov	'197'	125/30	19159...	...LG 38397	Fair. Slow. Changed format used. Ends 000 000	BR	TUE
	2000z	09 Nov	'197'	847 30 ==	94049...	...LG 74947 ==	Strong, fast. DK at start sent as 487 then 847	CB	THU
	2000z	14 Nov	'197'	358 30 ==	90031...	...LG 62852 ==	Fair, fast. Good, steady CW. No errors	BR/CB	TUE
	2000z	16 Nov	'197'	987 30	19008...	...LG 44026	Strong, fast. Numerous errors including many in call-up	CB	THU
	2000z	21 Nov	'197'	865 30 ==	05574...	...LG 47627 ==	Fair, med-fast. Many errors. Confusing at times	BR	TUE
	2000z	23 Nov	'197'	981 30 ==	55084...	...LG 13397 ==	Strong, slow. Several errors noted	CB	THU
	2000z	28 Nov	'197'	546 30	88511...	...LG 41972	Weak, very slow. Copy difficult at times	CB	TUE
	2000z	30 Nov	NRH					BR	THU
5320	1800z	02 Nov	'197'	157 30 ==	98373...	...LG 73122 ==	Fair, fast. Difficult copy at times. Errors noted	BR/CB/HFD	THU
	1800z	07 Nov	'197'	147/30	78902...	...LG 86083	Weak, fast. Changed format used. Ends 000 000	BR	TUE
	1800z	09 Nov	Nil heard to start then	very weak signal at 1804z.	LG possibly 99610 and the DK as 858????			CB	THU
	1800z	14 Nov	'197'	117 30 ==	93447...	...LG 20478 ==	Weak, fast. Difficult copy at times	BR	TUE
	1800z	16 Nov	'197'	333 30	06017...	...LG 43443 ?	Weak, fast. Numerous errors in call-up, DK & GC	CB	THU
	1800z	21 Nov	'197'		Weak call-up heard at 1803z.	Strong modulated carrier on freq. No useful copy		BR/CB	TUE
	1800z	23 Nov	'197'	161 30 111 30	78306...	...LG 97166	Strong, slow. == missing from start & end. Errors noted	CB	THU
	1800z	28 Nov	'197'	421 30 ==	.....	...LG 7.423 ==	Very weak, very slow with long pauses between grps.	CB	TUE
	1800z	30 Nov	'197'		Very weak with high noise.	No useful copy		BR	THU
5465	0700z	05 Nov	NRH	on clear frequency				BR	SUN
	0700z	12 Nov	'197'	521=30 ==	46547...	...LG 88305 =	Fair, fast. Changed format used. One noted error	BR	SUN
	0700z	26 Nov	'197'	378/30 37/20	58236...	...LG 56685	Good, med-fast. Changed format used. Errors noted	BR	SUN
5810	1500z	04 Nov	NRH	- Strong XJT on frequency				BR/E.SMITH	SAT
	1500z	11 Nov	'197'	430 30 ==	38915...	...LG 41181 ==	Weak-Fair with heavy QRM from XJT signal	CB/E.SMITH/HFD	SAT
5812/5814	1500z	18 Nov	'197'	321/30	14561...	...LG 25087	Fair, slow. Heavy XJT. Heard HF of freq. Changed format	BR/CB	SAT
5814	1500z	25 Nov	'197'	254 30 ==	.7979...	...LG.2825? ==	Weak. Heavy XJT QRM on 5810kHz	CB	SAT

December 2017:

4490	2000z	05 Dec	'197'	713 30 ==	80328...	...LG 33797 ==	Good, med-fast. Severe QRM rapid pulsing digital signal	BR	TUE
	2000z	07 Dec	'197'	561 30 ==	73295...	...LG 231 .3 ==	Fair, fast. Difficult copy in places. Errors noted	BR	THU
	2000z	12 Dec	'197'	878/30	88998...	...LG 01725	Changed format used. Digital QRM but mostly readable	BR	TUE
	2000z	14 Dec	'197'	264 30 ==	38379...	...LG 26061 ==	Fair/Good, fast. Strong digital QRM, But readable signal	BR	THU
	2000z	19 Dec	'197'	345 30 ==	96878...	...LG 60839 ==	V. strong, excellent, snappy delivery. Stumbled on grp03	CB	THU
	2000z	21 Dec	'197'	312 30 ==	99818...	...LG 20929 ==	Strong > Weak, med-fast. Started strong. Errors noted	CB	THU
	2000z	26 Dec	'197'	963 30 ==	48565...	...LG 20805 ==	Strong, slow. Numerous errors from grp18. 29 grps logged	CB	TUE
	2000z	28 Dec	'197'	425/30	.....	...LG ?1303 .	Swamped by QRM. Weak signal heard on 4498kHz	CB	THU
5320	1800z	05 Dec	'197'		Signal present but very weak - No useful copy			BR	TUE
	1800z	07 Dec	'197'	373 30 ==	Weak signal - Mostly unusable			BR	THU
	1800z	12 Dec	'197'	911 30 ==	96065?...	...LG 39120 ==	Weak, steady. Mostly readable. Errors noted	CB	TUE
	1800z	14 Dec	'197'	176??	77617???	0 0 0	Active but too weak for any useful copy. Details doubtful	CB	THU
	1800z	19 Dec	NRH	on clear frequency				BR/CB	TUE
	1800z	21 Dec	'197'	081 30 ==	97681...	...LG . . .61 ==	Weak. Only partial copy. Mostly unusable	CB	THU
	1800z	26 Dec	'197'	924 30 ==	28235...	...LG 50934 ==	Fair, slow & steady delivery. Errors noted	CB	TUE
	1800z	28 Dec	'197'	868/30	56386...	...LG 86677	Fair, slow & steady delivery. Changed format used	BR/CB	THU
5465	0700z	03 Dec	'197'	734 30 ==	94629...	...LG 26486 ==	Weak/Fair, slow. Errors noted. Four grps sent once only	BR	SUN
	0700z	10 Dec	'197'	308 30 //	85648...	...LG 78893 ==	Weak, med-fast. Ended with 3 x long & 3 x short zeros	BR	SUN
	0700z	17 Dec	'197'	373 30 ==	28308...	...LG 73558 ==	Weak, med-fast. Start weak, but improved. Errors noted	BR	SUN
	0700z	24 Dec	'197'	876 30 ==	32754...	...LG 02260 ==	Strong, med-fast. Good CW with noted. 29 grps logged	BR	SUN
	0700z	29 Dec	'197'	546/30	75823...	...LG 14748	Good, med-fast. Fast call-up first as '971' then '197'	BR	SUN

5810	1500z	02 Dec	'197'	Heavy XJT QRM on freq. Signal present, audible on 5813kHz. No useful copy	BR	SAT
	1500z	09 Dec	'197' 029 30 ==	65774... ..LG 12104 == Fair, med-fast. Good steady CW	BR	SAT
5814	1502z	16 Dec	'197' 201 30 ==	59032... Nil heard on 5810, weak signal with QSB on 5814 and started late.	CB	SAT
5812/5814	1500z	23 Dec	'197' 907 30 ==	03698... ..LG 42809 ?? 9.5. 5??? Good, med-fast. Strong XJT QRM on freq	BR/CB	SAT
5814	1500z	28 Dec	'197'	5810kHz swamped by noise, call up heard, fair signal. Note changed to hi speed warble.	CB	SAT

M01a (From Feb 2016 M01a has been redefined to cover all M01 variants - excepting M01b)

Once again Edd, (E.SMITH), has provided us with a large number of M01a logs. Looking through the logs it is evident that there is a very rigid format used by this station, with little or no variation.

The longer messages have consecutive serial numbers which are found three times in the sequence, in the first group, then again in the penultimate group & finally at the end, along with the group count. In addition, there is another pair of groups that are possibly location or sender identification, these being immediately after the serial group at the start & then immediately prior to the penultimate serial group at the end,

In the examples below, we have serials of 00006 & 00007 for the two successive messages and an identifier of 20 or 30, (the 00007 message has both - possibly an error but both of these numbers are used).

28 Nov

00006 00020 18904 25384 19085 69612 06175 45009 13705 12342
76194 76637 85524 28948 05385 99924 41272 86861 77749 18732
73901 61185 72811 19818 91585 40435 80002 26456 94887 29602
61310 97250 **00020 00006** 00000 = **006** 35

00007 00020 23347 56853 00335 88367 11564 96131 59783 43141
54109 60916 72048 43658 00971 43467 71183 36429 29325 38124
12611 95441 33464 89042 26351 99921 53544 63229 37303 78594
91229 33855 **00030 00007** 00000 = **007** 35

November 2017:

(... indicates a long pause)

8111	0632 (IP) - 0635z	02 Nov	(Via SDR Enschede)	CW	E.SMITH	THU
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536 (x3) 34667 (x2)

536 (x3) 32280 (x2) (Rx4) Monitored until 0900z NRH. No other M01a activity found on any other Freq.

10233	0621 (IP) - 0630z	07 Nov	(Via SDR Enschede)	CW	E.SMITH	TUE
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354 (x3) 78505 (x2) (Rx12) Cuts out midway into last 5fig group.

354 (x3) 79626 (x2) (Rx4) Cuts out midway into last 5fig group.

111 999

00009 00030 18864 44098 31695 14410 36706 17791 62168 51460
21301 01742 00170 70961 22439 21279 21052 38532 83592 78577
61925 05624 76594 73258 65316 79428 11933 65040 41601 09644
41994 76321 00040 00009 00000 = 009 35

000 (0630z) Monitored until 0800z N.R.H.

10233	0626 (IP) - 0630z	14 Nov	(Via SDR Enschede)	CW	E.SMITH	TUE
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354 (x3) 79626 79....

111 999

00003 00030 87185 18114 40590 61797 22327 07863 36064 57498
93062 22501 34566 39437 78384 05166 15033 25685 93171 80245
91351 95901 53978 20300 10527 80916 60815 10222 60577 39982
91464 15626 00030 00003 00000 = 003 35

0 0 0

10651	0715 (IP) - 0718z	14 Nov	(Via SDR Enschede)	CW	E.SMITH	TUE
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[In progress]78384 05166 15033 25685 93171 80245
91351 95901 53978 20300 10527 80916 60815 10222 60577 39982
91464 15626 00030 00004 00000 = 004 35

0 0 0

10233	0622 (IP) - 0629z	21 Nov	(Via SDR Enschede)	CW	E.SMITH	TUE
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354 (x3) 78505 (x2) (Rx12)

354 (x3) 77629 (x2) (Rx10)

			354 (x2)				
10651	0711 - 0719z	21 Nov	Test Tones... 297 (x3) 38180 (x2) (Rx11) 297 (x3) 39318 (x2) (Rx11)	(Via SDR Enschede)	CW	E.SMITH	TUE
9129	0531 - 0545z	22 Nov	498 (x3) 42482 (x2) 498 (x3) 53173 (x2) (Rx8) ... 498 (x3) 52482 (x2) (Rx6) 498 (x3) 53173 (x2) ... 498 (x3) 53067 (x2) (Rx4)	(Via SDR Silec, Poland)	CW	E.SMITH	WED
4408	1312 (IP) - 1359z	23 Nov	.. 12560 111 12560 111 555 19665 19665 18609 18609 11752 11752 11980 11980 111 0 0 0 [1316z] ... [1354z] 852 (x3) 11097 (x2) (Rx3) 333 111 999 890 10 = 23498 04652 18947 06251 48970 46890 76516 89704 15479 87041 = 890 10 333 111 = 890 10 111 0 0 0	(Via SDR Silec, Poland)	CW	E.SMITH	THU
10651	0717 (IP) - 0718z	24 Nov	297 (x3) 37857 (x2) (Rx4)	(Via SDR Enschede)	CW	E.SMITH	FRI
10233	0622 - 0629z	28 Nov	354 (x3) 78505 (x2) – Cuts out during 5fig group on second repeat. Hand down/Test tone. 354 (x3) 79626 (x2) (Rx3) – Cuts out during 5fig group on fourth repeat. 111 999 111 999 00006 00020 18904 25384 19085 69612 06175 45009 13705 12342 76194 76637 85524 28948 05385 99924 41272 86861 77749 18732 73901 61185 72811 19818 91585 40435 80002 26456 94887 29602 61310 97250 00020 00006 00000 = 006 35 000	(Via SDR Enschede)	CW	E.SMITH	TUE

10651	0711 - 0721z	28 Nov	(Via SDR Enschede)	CW	E.SMITH	TUE
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297 (x3) 38180 (x2) (Rx10) – Cuts out during eleventh repeat.

297 (x3) 39318 (x2) (Rx3) – Cuts out during forth repeat.

111 999

00007 00020 23347 56853 00335 88367 11564 96131 59783 43141
54109 60916 72048 43658 00971 43467 71183 36429 29325 38124
12611 95441 33464 89042 26351 99921 53544 63229 37303 78594
91229 33855 00030 00007 00000 = 007 35

0 0 0

9421	0621 (IP) - 0622z	29 Nov	(Via SDR Enschede)	CW	E.SMITH	WED
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135 (x3) 60479 (x2)

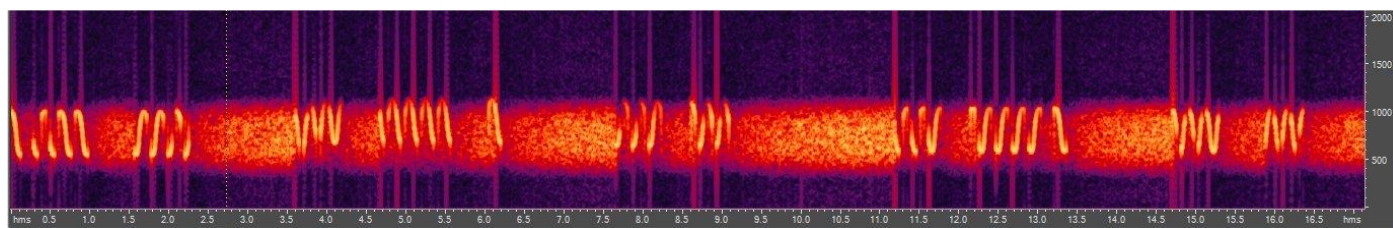
111 0 0 0

December 2017:

Edd notes: I.D's for the most part seem to be frequency specific. There have been weekly repeats of transmissions (mostly 10233/10651kHz on Tue/Wed/Thu) around 0600 – 0730z sometimes without a second transmission on another frequency (that I have been able to find). I have also caught a couple of days of training (many freqs within 4 – 5MHz transmitting within several hours) that have a note above.

Anything between 6 – 7MHz is usually very badly keyed and probably training as well

Edd also reports that transmissions from M01b often appear to be suffering from transmitter problems, in particular a severe 'chirp', which to us would indicate poor voltage regulation to the oscillator or some similar issue. The picture below is taken from one of Edd's intercepts.



M01b 4466.9kHz 1019z 19 December Transmission showing severe 'Chirp' on transmitter note Courtesy E. SMITH

10233	0619 - 0628z	01 Dec	[Weak with fading]	(Via SDR Enschede)	CW	E.SMITH	FRI
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354 (x3) 76165 (x2) (Rx4mins).

354 (x3) 77295 (x2) (Rx4mins).

10651	0709 - 0717z	01 Dec		(Via SDR Enschede)	CW	E.SMITH	FRI
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297 (x3) 36173 (x2) (Rx11) – Cuts out beginning of twelfth repeat.

297 (x3) 37857 (x2) (Rx10) – Cuts out during eleventh repeat.

(Missed the 10651kHz 05 December transmission. As usual with M01a there was some test keying on that frequency before the transmission proper but I was unable to record/log the message *E.SMITH*)

10233	0621 - 0623z	05 Dec		(Via SDR Enschede)	CW	E.SMITH	TUE
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354 (x3) 77629 (x2) (Rx2) – Cuts out during third repeat.

4780	1108z (IP)	18 Dec			CW	AB	MON
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68615 68615 928 928 928 68615 68615
928 928 928 68143 68143
928 928 928 68143 68143
928 928 928 68143 68143
928 928 928 68143 68143
928 9
333 20 46
333 20 46
333 20
333 20
33
333 46
111 999
752 10 = 4094 24081 85432 85740 84530 48450 35468 74241 08412 18098 = 752 10

111 000

4636	1054 (IP) 0 1105z	07 Dec	(Via SDR Silec, Poland)	CW	E.SMITH	THU
524 (x3) 13255 (x2) (Rx3)						
...						
333 13245 13245 (Rx4) – Cut out midway into fifth repeat.						
...						
333 13370 13370 (Rx9)						
Very badly hand keyed						
6780	1402 (IP) - 1412z	08 Dec	(Via SDR Enschede)	CW	E.SMITH	FRI
111 40447 40447						
273 (x3) 111 40447 40447 (Rx3)						
...						
273 (x3) 111 42342 42342 (Rx4)						
...						
111 040 05						
273 (x3) 555 49927 49927 48164 48164 41802 41802 42595 42595						
555						
555 49927 49927 48164 48164 41802 41802 42595 42595						
111 0 0 0						
QSA2 QSB3 Unable to read message.						
10233	0620 - 0629z	12 Dec	(Via SDR Enschede)	CW	E.SMITH	TUE
354 (x3) 78505 (x2) (Rx9) – Stops midway through tenth repeat.						
354 (x3) 79326 (x2) (Rx4) – Stops midway through fourth repeat.						
111 999						
00012 00030 83761 21600 47929 62019 ... 41931 95858 00030 00012 00000 = 012 35						
0 0 0						
10651	0710 - 0722z	12 Dec	(Via SDR Enschede)	CW	E.SMITH	TUE
297 (x3) 38180 (x2) (Rx8)						
297 (x3) 39318 (x2) (Rx8) – Stops during ninth repeat.						
111 999						
...						
297 (x3) 37294 (x2) (Rx10) – Stops during eleventh repeat.						
9421	0619 - 0622z	13 Dec	(Via SDR Enschede)	CW	E.SMITH	WED
135 (x3) 60479 (x2) (Rx3) – Stops during forth repeat.						
...						
111 0 0 0						
111 0 0 0						
8111	0629 - 0641z	14 Dec	(Via SDR Enschede)	CW	E.SMITH	THU
Hand down/Test Tone.						
536 (x3) 34679 (x2) (Rx2)						
...						
333						
333 34055 34055 (x14)						
536 (x3) 34008 (x2) (Rx7)						
536 (x3) 35205 (x2) (Rx7)						
Hand down/Test Tone.						

10233	0619 - 0628z	19 Dec	(Via SDR Enschede)	CW	E.SMITH	TUE
			354 (x3) 78505 (x3) (Rx12) Stops during thirteenth repeat.			
			354 (x3) 79326 (x3) (Rx11) Pauses during twelfth repeat.			
			354 (x3)			
10651	0710 - 0718z	19 Dec	(Via SDR Enschede)	CW	E.SMITH	TUE
			297 (x3) 38180 (x2) (Rx9)			
			297 (x3) 39318 (x2) (Rx10)			
Another very badly sent and spaced message, I am again unable to sort the digits into five figure groups.						
6055	0703 (IP) - 0718z	20 Dec	(Via SDR Enschede)	CW	E.SMITH	WED
			478 (x3) 84211 (x2) (Rx2)			
			478 (x3) 4211 (x2)			
			478 (x3) 4211 84211			
			111			
			...			
			1 1 1 9 9 9			
			109 = 30 39221 09455 80858 = 109 30			
			33 109			
			30 0 0			
4602	1020 (IP) - 1024z	19 Dec	Training (Via SDR Silec, Poland)	CW	E.SMITH	TUE
			0 4 01			
			851			
			851 85			
			333 93191 93191 (x3)			
			111 0 0 0 1024z			
4732	1022 (IP) - 1200z	19 Dec	Training (Via SDR Silec, Poland)	CW	E.SMITH	TUE
			807 (x3)			
			111 999			
			470 10 = 87046 31854 06510 32498 10657 40695 16845 03249 84031 48901 = 470 10			
			111 0 0 0 1024z			
			... [1121z]			
			807 (x3) 29096 (x2) (Rx3)			
			111 999			
			654 10 = 65476 90465 47690 46540 46532 49601 98405 35465 41064 06549 = 654 10			
			111 0 0 0 1125z			
			... [1148z] Hand down/Test Tone			
			807 (x3) 20635 (x2) (Rx3)			
			807 (x3) 206 (x3)			
			807 (x3) 20635 (x2) (Rx6)			
			807 (x3) 29005 (x2) (Rx7) – Stops midway into eighth repeat.			
			111 999			

203 10 = 43157 09463 06864 65310 8645 31546 30844 14987 85460 48764 = 203 10

333

333

111 = 48764

111 0 0 0 1200z

4007	1216z (IP)	19 Dec	Training	(Via SDR Silec, Poland)	CW	E.SMITH	TUE
70 87986 = 104 30 0 0 0							

4127	1320z (IP)	19 Dec	Training	(Via SDR Silec, Poland)	CW	E.SMITH	TUE
853 = 8721							
111 0 0 0							

Message omitted, too badly spaced and too many extra digits.

6055	0704 (IP) - 0718z	20 Dec	Training	(Via SDR Silec, Poland)	CW	E.SMITH	WED
11421							
478 (x3) 84211 (x2)							
111							
111 999							
109 = 30 39221 80858 = 109 30							
0 0 0							
333 109 30 00							

End of contact SK (Silencing Key) never heard by me before on M01a. *(Certainly an unusual variation from the usual rigid format of this station, Edd)*

8111	0630 - 0639z	21 Dec	Hand down/Test Tone.	(Via SDR Enschede)	CW	E.SMITH	THU
902 (x3) 33179 (x2) (Rx8)							
902 (x3) 32330 (x2) (Rx3)							
020 1							
902 (x3) 32330 (x2) (Rx4)							
K S K S K							

4573	1010 (IP) - 1011z	21 Dec	Training	(Via SDR Silec, Poland)	CW	E.SMITH	THU
18470 46174 84061 64312 30986 41078 = 392 10							
111 0 0 0 1011z							

4780	1030 (IP) - 1155z	21 Dec	Training	(Via SDR Silec, Poland)	CW	E.SMITH	THU
928 (x3) 68816 (x2) (Rx3)							
333 68836 68836 (x3)							
111							
111							
111 999							
784 10 = 04168 41035 49840 30214 68451 74651 32165 74065 49870 46324 = 784 10							
111 0 0 0							
...							
[1027z]							
[1131z] Test keying							

928 (x3) 68144 (x2) (Rx7) Cut out towards end of eighth repeat.

928 (x3)

928 (x3) 68833 (x2) (Rx7) [1143z]

... [1151z] Hand down/Test Tone.

928 (x3) 333 682 0 0 682 0 0 (Rx4)

111 0 0 0 (x2)

4594	1104 (IP) - 1118z	21 Dec	Training	(Via SDR Silec, Poland)	CW	E.SMITH	THU
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263 (x3) 73230 (x2) (Rx6)

77777777777777777777

77777777777777777777

263 (x3) 73230 (x2) (Rx4) Cuts out midway through fifth repeat.

111

...

111

333 72660 72660 (Rx8)

4636	1130 (IP) - 1138z	21 Dec	Training	(Via SDR Silec, Poland)	CW	E.SMITH	THU
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524 (x3) 13614 (x2) (Rx5)

524 (x3) 13094 (x2) (Rx7) Cuts out during sixth repeat, and after a few seconds pause resumes.

111 999

854 10 = 74084 65489 70461 23468 04631 68740 64513 15878 94610 23048 = 854 10

111 0 0 0

0 0 0

5203	1143 (IP) - 1144z	21 Dec	Training	(Via SDR Silec, Poland)	CW	E.SMITH	THU
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97764 05014 08138 32782 77769 55611 73349 92904 = 412 10 0 0 0

4512	1147 (IP) - 1150z	21 Dec	Training	(Via SDR Silec, Poland)	CW	E.SMITH	THU
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333 68001 68001 (x3)

333 6 8 0 0 1 (x2)

9 2 8

4732	1152 (IP) - 1201z	21 Dec		(Via SDR Silec, Poland)	CW	E.SMITH	THU
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807 (x3) 29838 (x2) (Rx7)

...

111 999

462 10 = 45249 80452 54980 45248 94024 89745 31248 64531 08674 90624 = 462 10

111 0 0 0

4832	1212 (IP) 0 1213z	21 Dec		(Via SDR Silec, Poland)	CW	E.SMITH	THU
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13304 1561 15611 55741 78710 98278 65041 = 414 10 0 0 0

Message I.D./G.C./Groups repeated twice.

4503	1238 (IP) - 1241z	21 Dec	Training	(Via SDR Silec, Poland)	CW	E.SMITH	THU
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415 10 = 87084 91987 74013 21894 96310 50486 51635 21068 40138 46531 = 415 10 0 0 0

5295	1243 (IP) - 1246z	21 Dec	Training	408 (Repeating periodically)	(Via SDR Silec, Poland)	CW	E.SMITH	THU
4612	1249 (IP) - 1213z	21 Dec	Training	408 (Repeating periodically)	(Via SDR Silec, Poland)	CW	E.SMITH	THU
				909 (x3) 44349 (x2) (Rx2)				
				111				
				111 999				
				416 10 = 79788 3035 39552 88732 18156 56179 32422 96464 71294 49505 = 416 10 0 0 0				
				333				
				111 333 01 = 79788 = 0 0 0				
5394	1251 (IP) - 1255z	21 Dec	Training		(Via SDR Silec, Poland)	CW	E.SMITH	THU
				53284 62987 64389 38620 73611 = 136 10 0 0 0				
				111				
				333 01				
				111 333 01				
				111 0 0 0				
5276	1332 (IP)	21 Dec	Training		(Via SDR Silec, Poland)	CW	E.SMITH	THU
				479 (Repeated for two minutes).				
				... [1344z]				
				479 (Repeated for two minutes).				
4562	1345z (IP)	21 Dec	Training		(Via SDR Silec, Poland)	CW	E.SMITH	THU
				745 (x3) 0 0 0 (Repeated for one minute thirty seconds).				
4884	1115 (IP) - 1124z	27 Dec			(Via SDR Silec, Poland)	CW	E.SMITH	WED
				714 (x3) 67091 (x2) (Rx2)				
				714 (x3) 67				
				714 (x3) 67091 (x2) (Rx3) Cuts out midway through forth repeat.				
				111				
				111 999				
				111 999				
				236 10 = 53165 49874 65305 47860 51840 63198 70463 54096 41325 49846 = 236 10				
				333				
				111 63198				
				111 0 0 0				

M01b

November 2017:

2405//3180	2110 - 2126z	03 Nov	'610'	395 31 = 20650 ... 93677 000	V.weak //Fair with data QRM / Strong	BR/HFD	FRI
2425//3205	2015z	06 Nov	'375'	395 31 = 20650....	3205kHz stronger	HFD	MON
2435//3519	1908z	06 Nov	'853'	395 31 = 20650....	QRM	HFD	MON
2470//3545	1932z	02 Nov	'910'	395 31 = 20650....	3545kHz stronger	HFD	THU
2485//3160	2040 - 2057z	02 Nov	'382'	395 31 = 20650 ... 93677 000	Weak //Good	MCW	THU
	2040 - 2057z	16 Nov	'382'	395 31 = 20650 ... 93677 000	Weak //Good - Strong	MCW	THU
2655//3195	2002 - 2018z	03 Nov	'866'	395 31 = 20650 ... 93677 000	Fair //Fair	MCW	FRI

3205	2015 - 2032z	27 Nov	'375' 395 31 = 20650 ... 93677 000	Good	MCW	BR	MON
3545	1932 - 1949z	02 Nov	'910' 395 31 = 20650 ... 93677 000	Weak/Fair No // found	[Note 1]	BR	THU

[Note 1] Only managed to hear the first 8 grps as the signal was subjected to continuous jamming from, presumably amateur stations. One using a French call-sign, another, unidentified, sent numbers over the transmission. Both stations ceased around one minute after the M01b transmission ended.

December 2017:

2470//3545	1932 - 1950z	21 Dec	'910' 717 31 = 30194 ... 10800 000	Weak//Weak	MCW	BR	THU
2485//3160	2040 - 2057z	21 Dec	'382' 717 31 = 30194 ... 10800 000	Weak//Fair	MCW	BR	THU
2655//3195	2002z	29 Dec	'866' 817 31 = 30194 2655kHz	stronger, but IAR Rome R on 2656kHz	HFD		FRI
3205	2015 - 2032z	18 Dec	'375' 717 31 = 30194 ... 10800 000	Fair//Good Strong XJT on 2425kHz	BR		MON

M01b 2485//3160kHz 2040z 02 Nov 2017				M01b 3205kHz 2015z 18 Dec 2017			
910 (R4m) 395 395 31 31 ==				375 (R4m) 717 717 31 31 ==			
20650 22146 47579 23616 23271 79982 75414 44260 16515 13870				30194 26864 56020 63682 55804 62325 45444 71609 59335 59602			
16984 49369 40942 39317 37923 95231 34333 19114 94866 53711				01578 96101 83545 44961 97712 79459 71556 61584 81106 32776			
51645 75374 95695 55763 98150 37964 83946 76748 00607 29188				21966 24298 66986 57356 34275 74227 94273 45437 94215 60831			
93677 ==				10800 ==			
395 395 31 31 000				717 717 31 31 000			
Courtesy BR				Courtesy BR			

M08a XVIII ICW / CW, some MCW

Our regular report & logs from our man in America:

It seems that the Cubans finally got their act together once more when on 06 November M08a transmissions returned and were present on almost all the scheduled slots from Monday to Friday, including the 2000z on 7554kHz, expanding to Monday/Wednesday/Friday for this schedule.

There were no transmissions heard on weekends however. They apparently haven't got round to resetting their clocks though as the transmissions are regularly starting 7 minutes before the start of the hour.

Items of note, on 21 November at 1400z, two of the call-ups started with the same number which is very unusual, also all three call-ups ended in 1 which also only happens rarely. On 28 November at 2000z another M08a was faintly audible in the background before, during and after the main transmission. One of the call-ups was heard, namely 35022, which was one of the regular weekend call-ups that hasn't been heard since June.

The numbers in the call-ups continue to follow the rules noted in previous newsletters with the only exception being that described above.

November 2017:

7554	2000z	07 Nov	[82741 05172 18401]	AnonUS	TUE
	2000z	09 Nov	[71062 84301 07722] Up at 1953z	AnonUS	THU
	2000z	14 Nov	[- - - - - 32582] Up late in progress	AnonUS	TUE
	2000z	16 Nov	[15761 28182 32421] Up early with first call-up in progress	AnonUS	THU
	2000z	21 Nov	[06401 27131 33251] All 3 call-ups end with 1	AnonUS	TUE
	2000z	23 Nov	[82122 15441 28771]	AnonUS	THU
	2000z	24 Nov	[- - - - - 18551 22882]	AnonUS	FRI
	2000z	27 Nov	[53161 66502 70822]	AnonUS	MON
	2000z	28 Nov	[- - - - - 56501] Up late in progress	[Note 1] AnonUS	TUE
	2000z	29 Nov	[00402 13721 86161]	AnonUS	WED

[Note 1] Another M08a was weakly audible during and after the main transmission One call-up was heard namely 35022, one of the usual weekend call-ups although this call-up was last heard on 23 June.

8009	2300z	01 Nov	HM01 M08a expected in this slot	AnonUS	WED
	2300z	06 Nov	Found in progress, call-ups started before the top of the hour	AnonUS	MON
	2300z	13 Nov	Found in progress, call-ups started before the top of the hour	AnonUS	MON
	2300z	20 Nov	Found in progress, too weak to copy	AnonUS	MON
	2300z	24 Nov	[- - - - -] Present but completely masked by a loud hum	AnonUS	FRI
	2300z	29 Nov	[31502 52232 65662]	AnonUS	WED
8096	1400z	06 Nov	[- - - - - 72582 85021] Up late in progress	AnonUS	MON
	1400z	07 Nov	[73321 06742 10172]	AnonUS	TUE
	1400z	08 Nov	[70652 83081 16412] Came up at 1352z	AnonUS	WED
	1400z	09 Nov	[77351 81681 04112]	AnonUS	THU
	1400z	10 Nov	[- - - - - 43132] Up late in progress	AnonUS	FRI
	1400z	13 Nov	[13322 24052 37381]	AnonUS	MON
	1400z	14 Nov	[- - - - - 04811 17242] Came up early in progress	AnonUS	TUE

	1400z	15 Nov	[10651 22381 34722]	Up early with first call-up in progress	AnonUS	WED
	1400z	17 Nov	[67722 71251 04572]		AnonUS	FRI
	1400z	20 Nov	[62612 75141 88472]		AnonUS	MON
	1400z	21 Nov	[82051 13781 18711]	Call-ups 2 and 3 both start with 1 and all 3 end with 1	AnonUS	TUE
	1400z	22 Nov	[- - - - 56102 60421]	Up at 1356 in progress	AnonUS	FRI
	1400z	23 Nov	[83702 05122 18451]		AnonUS	THU
	1400z	24 Nov	[- - - - - - - - 40002]	Up late in progress	AnonUS	FRI
	1400z	29 Nov	[00152 12481 24221]		AnonUS	WED
	1400z	30 Nov	[- - - - 60772 82412]		AnonUS	THU
8135	2300z	14 Nov	[- - - - - - - - 61102]	Up late in progress	AnonUS	TUE
	2300z	10 Nov	[58502 62822 75251]	Up at 2253z	AnonUS	FRI
	2300z	17 Nov	[01541 24062 37301]		AnonUS	FRI
	2300z	21 Nov	[52522 65051 78372]		AnonUS	TUE
	2300z	28 Nov	[- - - - - - - - 88381]	Came up in progress	AnonUS	TUE
	2300z	30 Nov	[60432 83761 06282]		AnonUS	THU

December 2017:

7554	2000z	01 Dec	[- - - - - 88071 01302]	Up early in progress	AnonUS	FRI
	2000z	04 Dec	[- - - - - - - - - -]	Up late in progress garbled Morse	AnonUS	MON
	2000z	06 Dec	[- - - - 58611 62142]		AnonUS	WED
	2000z	07 Dec	[71852 84281 06522]		AnonUS	THU
	2000z	08 Dec	[- - - - - - - - 03121]	Up at 2007z with two windows dings	AnonUS	FRI
	2000z	11 Dec	[- - - - 53671 67601]		AnonUS	MON
	2000z	12 Dec	[- - - - 41772 54101]		AnonUS	TUE
	2000z	13 Dec	[- - - - - - - - 52431]		AnonUS	WED
	2000z	14 Dec	[83841 06372 10601]		AnonUS	THU
	2000z	18 Dec	[12502 25831 38251]		AnonUS	MON
	2000z	19 Dec	[36601 40031 53452]		AnonUS	TUE
	2000z	20 Dec	[45641 58162 62401]		AnonUS	WED
	2000z	26 Dec	[- - - - 54832 66562]		AnonUS	TUE
	2000z	27 Dec	[- - - - - - - - - -]	Up at 2022z very near the end of the transmission	AnonUS	WED
	2000z	28 Dec	[- - - - 78321 82652]		AnonUS	THU
	2000z	29 Dec	[10862 32612 44031]		AnonUS	FRI

[Note 2] After AR AR AR SK V02a voice came up with 6 26415 12730 61515 <pause> 50826 48338 22852 27853 before becoming too faint to copy.

8009	2300z	06 Dec	[00712 13241 26562]		AnonUS	WED
	2300z	13 Dec	[77511 81841 14262]		AnonUS	WED
	2300z	20 Dec	[81861 14201 27522]		AnonUS	WED
	2300z	25 Dec	[01622 23142 36471]		AnonUS	MON
	2300z	27 Dec	[32702 44131 57552]		AnonUS	WED

8096	1400z	01 Dec	[- - - - 22701 35122]		AnonUS	FRI
	1400z	04 Dec	[- - - - 58811 - - - -]	Garbled Morse started and ended with windows dings	AnonUS	MON
	1400z	05 Dec	[41132 54462 67781]		AnonUS	TUE
	1400z	06 Dec	[- - - - - - - - - -]	Recording problem, no call-ups	AnonUS	WED
	1400z	07 Dec	[- - - - 77241 81571]		AnonUS	THU
	1400z	08 Dec	[- - - - 87651 01182]	Up late in progress	AnonUS	FRI
	1400z	11 Dec	[52341 65762 78102]		AnonUS	MON
	1400z	12 Dec	[- - - - 40751 53172]		AnonUS	TUE
	1400z	13 Dec	[- - - - 66112 70441]		AnonUS	WED
	1400z	14 Dec	[- - - - 82822 05351]		AnonUS	THU
	1400z	15 Dec	[54652 67071 70412]		AnonUS	FRI
	1400z	18 Dec	[- - - - 46222 50651]		AnonUS	MON
	1400z	20 Dec	[62161 84481 07822]		AnonUS	WED
	1400z	22 Dec	[- - - - 24631 47061]		AnonUS	FRI
	1400z	25 Dec	[48552 52871 65211]		AnonUS	MON
	1400z	26 Dec	[36151 48781 52222]		AnonUS	TUE
	1400z	27 Dec	[85331 08662 12102]		AnonUS	WED
	1400z	29 Dec	[23061 46381 50622]		AnonUS	FRI

8135	2300z	07 Dec	[81242 12872 25301]		AnonUS	THU
	2300z	12 Dec	[65261 88582 02821]		AnonUS	TUE
	2300z	15 Dec	[01382 14221 27552]		AnonUS	FRI
	2300z	19 Dec	[74421 87841 01272]		AnonUS	TUE
	2300z	22 Dec	Present but too weak to copy		AnonUS	FRI
	2300z	26 Dec	[00051 13381 35121]		AnonUS	TUE

Ary, (AB) also monitored some of the M08a transmissions during December. Here are a few of his logs & transcripts monitored via an online USA SDR:

8096	1400z (IP)	14 Dec	In progress - start missed. Partly unreadable due to WebSDR problems	CW	(AB-USA)	THU
	1406z	18 Dec		CW	(AB-USA)	MON
	1354z	20 Dec	Good copy of M08a via the Texas SDR. It was already in progress at 1354z	CW	(AB-USA)	WED

RNARA GUUGA TIGNN RNARA GUUGA TIGNN RNARA GUUGA TIGNN

RNARA RNARA RNARA RNARA RNARA == =
 NRNRT GDDNG URUIG GTUGR ITTTT WIGWW WTRIU UIINT NINGI NDURD
 RTRWW IITDG INWWU WDDTG WTWUA WDIUR ARWAU UWWWN AAWUA TRURU
 NGUUT IRGGW UIIGT NNNAU GIGII TGWWG AITTW TWRUR DGAAA WTIAA
 TWIDI IGGRW NGIWD GADGU UDGGI RUGGD RIUIG DNIDA WIGUA AGRTD

TUNAN TUIAT DRNUD TDGTI TIDRU TTANN RUDUN RIDUT DWTUT GNIDR
NNRGT RAAADT UWNNG WWDTN AWUTW IRNAI GRAGW WGIRG IGURT NTAUN
ITGIW INIRN WRDAR WGRAW TNGDG WUUUU RGWTN WITNR NNGWW NIUUU
GIAGT ITATR RRNI WRNDN RGNTG TITTI RGRWI NNNIR DTD RD RTATD
NDNGN IIGIA GRRNI URRRT ITTAW IINTI IDUW WWUWW RTWGR WGURG
AIWDR TTIDI GNTNR GDUND IITAW UGGWT DGAAA RUAGW DDIRU DNURR
INWUT NDWGW UINNN GNNIT ITWWT RTURR IDIUU NTDITW UINTA GIHWG
TNWIG UDWGG TNIRD TGGNR AGRUI AWNGA AAIGR WWRUI AIGAN TAAUI
TTNDU AATIT WTGIR UAAANU WIGWA DGTRG IUNTD DUAIA URWRU NWIDG
IGRNU GNRNA NWRTN IITTI ITGIW GNUGT TAUGD DNTGU WUINI GIIDN
TDUGU NGTTG ITUIT WAGRD IAGRI NDTAW TDURA NDTGG IUTUD RNTGN
+ + +

GUUGA GUUGA GUUGA GUUGA GUUGA = = =
IRNDW WRWNN TWUUR NTGTT DWRTR AANRN UIWWR GGTUI DRRTT NGDGW
TRUDR TWIUW RUNRI TWDDU WIDID TAAIT WTGUR GWANA TUDUR RWTNA
UIINU UIIAA IWIAW DNDNI WURNW WNRNT UAWGG TUUWN TRDDT UNINN
NIIRU NUDDW NNWAA WDNGI UITIA ANDIA GIANW WNTGN NGADU ADRRU
RRGWR WNIR RTGNI WWDTT GNRNI NUTNI RWWII IAGAT ANWWD IWRAN
WGTGW ITAWT TINIT WIAIT TNGWA GRIRW UGMDG DAIGG TADAG WTTRI
UIARD UANWT TRNGA AAIRA WUGRN WNGAN TMNTT WUTTI WMUIU ANATN
NRNTW GDUTI WDIGG WTIUW RTAND ANGTN GIUGU IGNAW DGUGW RNDII
UARAD AAGIU IWTWA UTWWD ATRTA RNRGG RNNWG TUDWT WNDTT UANAT
DUWRR NTTWI UNRUD UGIUG RUAGW TGDIG TAGDT DDAIN DITIU AWURW
UWGRI GUWUD ITRTA RNIRW TWUGN NDUDR IRANW DIGAN GARDW AWNUT
DWIRI NTARA WINNN UIRID TAWUG UTTDT RUGRG UAGRT DTUDW TDNWG
AIDGU AWGDW TRUTU RRIDA TDARA DIAAG AGRAT NWGUI GWWWR AARNW
DUAWW UAWWD INDWN TDUUD NNDUR UGUUN DDATD AGRTI TARRG DGGUW
TADAU UURWW DAAWU WRAAU DAIDT GATRT RAIIT NUNUU ANIUR GURUA
+ + +

TIGNN TIGNN TIGNN TIGNN TIGNN = = =
RWGNI IUDAT TNDUG NDTAA NINTI NWNIT GTIRD NNUDN IGUGI UUWTI
TUDGI WNRTW TWWWR NNDWR DIDTG IANUA DNWTU RANTG GNTGW NTUNT
IANRU UTIUW NRDGA NITGW TRNWT WGUUN GWWDA WUDIA INGH UDART
GNUAG IUAAD DTNRG NWTGG UURIR UDNTT RGGIG GDWWI TUNDU WIAID
TAUUD AUWWT URRAR TDGAG WTAGN ITRRA WTATW UWNAG TTIRT UIWAG
DDGWU WRRGW RGURA RGIGW NWTGG GARDU TRGDT ADIUU TUWAU UAGRR
DDUIR RWTIT TRNRW ARTGD WUWII IWRRI UGTWG RNTTR DRRAD WVGIN
GIGID NDTGW TGANU RGRIT ITANA TATDD NWINN TTGTT RRNNR NRNWI
AGURI NNUTA RUAUW NGTIT ANGND UWDGA WGNIA NIRGG GRURR TNARD
GWWDI AUDDG WNINW TTAAR AURWA UUTDR GWAUT DURTU GGUIT TGDRU
OUWRI GGGIA GIIND TRWTI TDWAU ADNRA IDWDN TNNND UWIRW GRTWU
INIRU UUTND DTURD IDADR GDNNG IDTWV TRIIA TUDIA GWGDG TUTWW
IRUTA IGUGA RGUIU WARUN WUAGI WGARD GNATT UARTW DNTRU TIUNN
IDNNG AGGNA GTDIT GUNRG TNNAI TRNNW UGRRD GTWTG GDGRT ANUGR
GRIDN RWNAA MATAN ARTRA WWURW TIDDW IRWTU DGDIT WAADW NADTW
+ + +

8096 1355z 26 Dec CW (AB-USA) TUE

DRAWA UGIGA WNNNN

DRAWA DRAWA DRAWA DRAWA DRAWA = = =
AGDAU DTRGU GAUGA RIRWI MUIIW RIHII NUUGW WUWUG WDNTW UWWDR WNIAN DUDRA
TDIWG RNDIN GIUTD IIRDT RRDDD RGRDN TDDUR RTRDI NGITD UTGWT WTWNW RUDTA
AMGAA GIRUW UUWNN TWGDA GNWRG WTARI DWTDD AATRA RTWRA URIIA IGRRW ADDAA
RIRIR TTRND ITNGG INNIA DITGN IDITG RUGGI TUNUR RRINI TNNIR NWGUU UNNDD
UNRUN DIWNI UNTUA UGNUT UATNG WTDUD RTRWM IWUIT NARTI AARDI NTIAR TADDW
TDANR DTGRT NGNDU NTUWI WWDRT WNWIN DIDDIT IAGDA IGWWI GTDTG GRDIT UTRRA
TUNTA NDUAW IINID RDTIU WIARN ITDTN WRGRN INUAW UTNDR ANTRW GAAAT DAID
ARATU AGAIT DDNGD GTDDG WRNAG TGTWN TRIRG UTIAD DIUDN GIRAD UAUDI TNTRD
DIUTA DGAWT UUWDD AIRGT IDGMA ANURT NWNIT DTAAG UGDWU UNIWA DRDGT RTGTG
TARNG GGWTR WAITA RNAID WNADA RGDNU ITRMG TATWU WIRNI WNIDG UNTAU URNWA
NTGAW AWRNR GIRNR TRNRI RUDGI WTTNI UTGDT RRAIA UTWTA DAAIU WRNIU ATTAR
GDIRR IUGTA WNWIG UUDGG ATGAN UDIIR WUDTD UIDDU UNAGI ADTAD RDDWU TDAAA
ARWRD DAAWU RAIUG RANGW RDUND TGAUG
+ + +

UGIGA UGIGA UGIGA UGIGA UGIGA = = =
DAGNW TUIND TAUDR TIATI UINDG GNDRA NAUIT ANURI GAARI UTUUG UURUD RRRDD
DNTDI RTIGN DGARW TTDITN UGRUI AWWDG TAGIU ARNRU NAIIN IDUNI TRNNR UADGT
DDNRG UUAUD DIGUA UNINA RRNRU WUADW NIWTG DDWNW GGUTI AWARG UDWRT NGADR
GNUWT TATIW RDNNW AGTTN DRNTU DTDUG RINDN IWRAD DITDR RATNG RWRU RWAAT
ANDND DDWU NGGDI TTRWG ITUNI WADIU ATARA GATRR AIDTT NNWUR AWIRD UGNIU
UWDNT IAWDD RAIDA GIWTN DDNUW UAITR ATUUN GUNRA NAATG TNDWT ARDWR DNART
RATWD DGRG NNGAU RDIUD ANIRW TAUUG GUNIT NDTWU NIDAD RNAGI IUTAN DUNIT
UWDAD NAUGD ATINN ATWTT AAWGW GITIG RTTRI TTIGD WAGUR DRWNG ATUW TWAUD
UGUWW GTRWD TWTRI NAANA DAGNA TNAUA NDIUI TTGUU TTUNW ITNAU NTGNI RAIGR
TGATR NGUTD IRTTN IUWDN WTIUW DADUA AGTWD IATUA URUIA ARNRU GIANT IRDGR
IRWUD ADMUG ATDNG RGUNN IWDUU RRRDA WTWGR UNWTT NRTRR DRRDW IGAGI TIARR
DAAUD DIRID ARRG NWAATD WIAAR DGADD DWDDR GADRA RNUIT UNNNW NRNGD DIGUU
TRWWW GDGAD IRIII NTDDT GWIWW IRTUA
+ + +

WNNNN WNNNN WNNNN WNNNN WNNNN = = =
RRIDA RGUNR NRWWD GDIDT TAGGG TDGIA UIGTD RRUUA GGIUG IGWDA TRAIN RAURU
UANIN WRAAT RRUAG IGAAW DWDWN TGUTU DDDNG NINTI RATDW IINRR RURTA DAIDN
ATUND RGADD ADWRN NNGWU UWWRD WATIG TRUII AURUT GRRWR ITWGR NGUDW AUTGI
DUDTU RIDIT TUTIN ANWTW UAUUD DWNRD IDURA NIWGU GGTWA UTNDI GRTRN ARKRN
GNIWT GWUIA TWITR RGIUA RIUDN TTRNA AWGDI RTIUT GTTII NRNRN IUWNN TNUUD
GTURG ADATN INAGR GGART WRDIT WNDN IAGRU NRIGI GAADI UAIUU INRWDT TURTT
DNWIN ITIDW DGRIG GRARI NNGIN AGNDI WIDDI ANADA AWGNA WIWGU TTANT UGRWT
DAUWA NIWWI TINNG GNNNI GTTWU IWTRA ATNNW NDWNT RGDW UAAWU IUWTT WRTNN
AIRRT RIRRT RADTN WTDU UUAAND GNARW DUGDW NUDGA WADUW WIWMG TRRDI GITWG
ATWDU NDRTU NWDUW DDRIG RADNI RDRAW GUTWD UNTIT GNNDW WTIGT RAGGN UGGWD
RGUAN TDRDG TIIND ITIDT UNNAR NWIDIA GTDAR GTTUU TUWIG TINTR TRUDI UURRA
TNGD DWAUG NAIRT AURWA NUAUR DNUUD ADWWT DURGA DRDDN NNNTN WAGUR GRGTI
RRRIA WTWUT NIGTA DTTUT ITGWD GANUA
+ + + SK

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

New ID's may be only for the month/sched shown, but not necessarily unknown . The reason for their reuse, some after long periods of time, is unknown.

November 2017: New scheds in bold type

5429/4629/4029	2200/20/40z	01 Nov	460 1 (5022 81) 71980 54522....	BR	WED
	2200/20/40z	08 Nov	460 1 (2212 153) 58264 76214....	BR	WED
	2200/20/40z	15 Nov	460 000	BR	WED
	2200/20/40z	22 Nov	460 1 (7787 135) 75975 82696....	BR	WED
	2200/20/40z	29 Nov	460 000	BR	WED
6846	0702 (IP) - 0706z	29 Nov	Unscheduled transmission, no repeat found	E.SMITH	WED
			.... 41464 12544 01691 08264		
			35929 55455 93919 12017 84406 70371 89469 33012 66354 80559		
			37648 13767 84451 41861 13413 49250 42904 92684 15525 66450		
			12235 60411 61890 81482 15778 59755 06551 45231 79205 21078		
			44213 14743 60546 74676 93106 77035 35417 76524 12140 41833 000 000		
6937/5737/---	2210/30/50z	02 Nov	975 000	HFD	THU
7536/6836/5136	2050/2110/2130z	01 Nov	581 000	HFD	WED
	2050/2110/2130z	03 Nov	581 000	BR	FRI
	2050/2110/2130z	08 Nov	581 000	BR	WED
	2050/2110/2130z	15 Nov	581 000	BR	WED
	2050/2110/2130z	22 Nov	581 000	BR	WED
	2050/2110/2130z	29 Nov	581 000	BR	WED
7637/9137/10237	0600/20/40z	04 Nov	612 1 (5022 81) 71980 54522 40608 31716 000 000 (Via Enschede)	E.SMITH/HFD	SAT
	0600/20/40z	11 Nov	612 1 (2212 153) 58264 76214 06908 11152 000 000 (Via Enschede)	E.SMITH	SAT
	0600/20/40z	18 Nov	612 000	E.SMITH	SAT
	0600/20/40z	25 Nov	612 1 (7787 135) 75975 82696 17710 41987 000 000	E.SMITH	SAT
8047/6802/5788	1900/20/40z	01 Nov	463 1 (5390 139) 34558 38027....	BR/HFD	WED
	1900/20/40z	08 Nov	463 1 (9296 148) 46834 9 .548.... Weak	BR	WED
	1900/20/40z	15 Nov	463 1 (1432 143) 48617 22356....	BR	WED
	1900/20/40z	22 Nov	463 1 (1338 134) 91451 19795....	BR	WED
	1900/20/40z	29 Nov	463 1 (1267 130) 97393 60007....	BR	WED
9162/8062/7462	1310/30/50z	02 Nov	104 1 (7919 59) 25459 71883 34988 24510 000 000 (Via Enschede)	E.SMITH/HFD	THU
	1310/30/50z	04 Nov	104 1 (7919 59) 25459 71883....	BR	SAT
	1310/30/50z	09 Nov	104 000	E.SMITH	THU
	1310/30/50z	11 Nov	104 000	BR	SAT
	1310/30/50z	16 Nov	104 1 (5326 67) 30461 18749....	BR	THU
	1310/30/50z	23 Nov	104 1 (8788 89) 27241 70392 73183 06410 000 000	E.SMITH	THU
	1310/30/50z	25 Nov	104 1 (8788 89) 27241 70392....	BR	SAT
	1310/30/50z	30 Nov	104 000	BR	THU
9176/7931/6904	1700/20/40z	01 Nov	257 1 (9074 100) 68299 21879....	BR/HFD	WED
	1800/20/40z	01 Nov	257 1 (1263 130) 27443 77819....	BR/HFD	WED
	1700/20/40z	08 Nov	257 1 (7089 108) 40995 25548....	BR	WED
	1800/20/40z	08 Nov	257 1 Very weak	BR	WED
	1700/20/40z	13 Nov	257 1 (5503 105) 65081 59089....	BR	MON
	1700/20/40z	15 Nov	257 1 (5632 106) 98447 40408....	BR	WED
	1800/20/40z	15 Nov	257 1 (6612 135) 80111 61909....	BR	WED
	1700/20/40z	20 Nov	257 1 (8757 106) 08131 76863....	BR	MON
	1700/20/40z	22 Nov	257 1 (2061 101) 67476 09831....	BR	WED
	1800/20/40z	22 Nov	257 1 (5934 143) 15348 37027....	BR	WED
	1700/20/40z	27 Nov	257 1 (2278 101) 65627 71444....	BR	MON
	1700/20/40z	29 Nov	257 1 (7139 108) 39548 99835....	BR	WED
	1800/20/40z	29 Nov	257 1 (5232 141) 72290 32522....	BR	WED
10343/9264/8116	1900/20/40z	02 Nov	124 1 (9095 127) 67701 30574....	BR	THU
	2000/20/40z	13 Nov	124 1 (1815 101) 64799 59455....	BR	MON
	1900/20/40z	16 Nov	124 1 (9880 129) 56743 77 .1.... Weak	BR	THU
	2000/20/40z	20 Nov	124 1 (6383 103) 95915 79915....	BR	MON
	1900/20/40z	23 Nov	124 1 (8139 126) 27226 55190.... Weak	BR	THU
	2000/20/40z	27 Nov	124 1 (6495 103) 07549 48880.... Weak	BR	MON
	1900/20/40z	30 Nov	124 1 (5068 111) 33431 272 .1.... Weak	BR	THU
15869/17469/18769	1010/30/50z	09 Nov	847 000 (Via Moscow SDR)	E.SMITH	THU
	1010/30/50z	16 Nov	847 1 (7427 83) 05993 02151 79435 13033 000 000	E.SMITH/HFD	THU
	1010/30/50z	23 Nov	847 000	E.SMITH	THU
16296/14796/133969	1400/20/40z	01 Nov	273 1 (3320 87) 44489 81719....	BR/HFD	WED
	1400/20/40z	08 Nov	273 000	E.SMITH	WED
	1400/20/40z	15 Nov	273 1 (6938 71) 58730 08976 40266 58643 000 000	E.SMITH	WED
	1400/20/40z	20 Nov	273 000	BR	MON
	1400/20/40z	22 Nov	273 000	E.SMITH	WED
	1400/20/40z	27 Nov	273 1 (7222 125) 63808 40342 66069 90569 000 000	E.SMITH	MON
	1400/20/40z	29 Nov	273 1 (7222 125) 63808 40342 66069 90569 000 000	Gert	WED

December 2017:

5312	2200z	13 Dec	350 000		Gert	WED
5312/4512/4012	2200/20/40z	20 Dec	350 1 (3148 47) 37109 34841....		BR	WED
	2200z	27 Dec	350 000		Gert/HFD	WED
5784/7584/---	0600/20/40z	02 Dec	751 000		E.SMITH/HFD	SAT
6908/5808/---	2050/2110/2130z	06 Dec	985 000		HFD	WED
	2050/2110/2130z	13 Dec	985 000		BR/Gert	WED
	2050/2110/2130z	20 Dec	985 000		BR	WED
	2050/2110/2130z	27 Dec	985 000		BR/Gert	WED
7741/6841/5741	1310/30/50z	02 Dec	787 000		HFD	SAT
	1310/30/50z	14 Dec	787 000		BR	THU
	1310/30/50z	16 Dec	787 000	[JPL's log 6841kHz at 1330z via Remote Tuner China]	BR/JPL	SAT
	1310/30/50z	21 Dec	787 1 (6089 113) 10141 07377 11013 62133 000 000		Gert	THU
	1310/30/50z	23 Dec	787 1 (6089 113) 10141 07377 11013 62133 000 000		Gert	SAT
	1310/30/50z	28 Dec	787 1 (1436 121) 68918 50687 26460 19688 000 000		Gert	THU
8047/6802/5788	1900/20/40z	13 Dec	463 1 Weak signals - No useful copy		BR	WED
	1900/20/40z	20 Dec	463 1 (4176 149) 55423 28700....		BR	WED
	1900/20/40z	27 Dec	463 1 Weak signals with local QRM- No useful copy		BR	WED
9176/7931/6904	1700/20/40z	04 Dec	257 1 (6344 107) 13357 60828....		BR	MON
	1700/20/40z	11 Dec	257 1 (4318 100) 42987 80182....		BR	MON
	1800/20/40z	13 Dec	257 1 Weak signals - NRH on 6904kHz		BR	WED
	1800/20/40z	20 Dec	257 1 (1844 135) 35771 91867....		BR	WED
	1800/20/40z	27 Dec	257 1 Weak signals with local QRM - No useful copy		BR	WED
10343/9264/8116	2000/20/40z	04 Dec	124 1 (4120 104) 57969 78987....		BR	MON
	2000/20/40z	11 Dec	124 1 (3937 110) 43678 59874....		BR	MON
	2000/20/40z	18 Dec	124 1 (9196 110) 12005 17255....		BR	MON
13371	1400z	04 Dec	352 000		Gert	MON
13371/12571/10271	1400/20/40z	06 Dec	352 000		BR	WED
	1400/20/40z	11 Dec	352 1 (4241 87) 30664 57793....		BR	MON
	1400/20/40z	13 Dec	352 1 (4241 87) 30664 57793 95660 15013 000 000		BR/Gert/HFD	WED
	1400/20/40z	18 Dec	352 000		Gert	MON
	1400/20/40z	25 Dec	352 1 (1385 133) 95213 76080....		BR	MON
	1400/20/40z	27 Dec	352 1 (1385 133) 95213 76080 04689 56809 000 000		Gert	WED
14377/13461/12114	1700/20/40z	07 Dec	317 1		HFD	THU
14769/16268/18169	1010/30/50z	03 Dec	721 1		HFD	SUN
	1010z	14 Dec	721 1 (300 121) 86387 74339 42216 91568 000 000		Gert	THU
	1010z	28 Dec	721 000		Gert/HFD	THU
	1010/1030z	31 Dec	721 000		Gert	SUN

M12 15869/17469/18769kHz 1010/1030/1050z 16 Nov 2017

847 847 847 1 (R2m) 7427 83 7427 83

05993 02151 06036 46150 72973 91494 82066 23709 43208 83930
86459 42050 48023 88075 04108 95097 17122 93797 39255 21751
95998 64522 68313 53698 58018 13398 33834 65840 67521 24160
73284 69893 60118 11712 14363 34426 07850 00233 55513 65442
45552 72987 28627 18290 25804 36405 75819 50627 09618 86667
09223 00904 95468 47681 72620 31641 98984 68962 95724 44059
65631 71708 62130 71573 25337 99615 85193 68694 42248 05811
79449 27045 13722 56647 28317 03407 84754 30862 66886 42838
75143 79435 13033 000 000

*Courtesy E.SMITH***M12 13371/12571/10271kHz 1400/1420/1440z 13 Dec 2017**

352 352 352 1 (R2m) 4241 87 4241 87

30664 57793 68268 20935 48653 67354 17818 25516 56882 92175
15546 76117 64669 83823 47865 99894 14937 81667 69694 72823
99513 80934 82067 97653 34263 87637 69535 35746 05793 84028
36711 36312 67754 06056 29954 26788 85502 18999 68612 95491
39140 72440 89628 97414 23786 06262 79451 53718 51043 85972
92148 97472 39653 06181 64609 61392 14828 59563 22134 92131
77981 53589 09250 94281 02162 19842 00807 53257 46907 59178
50112 23390 23902 36163 26253 50530 59317 92811 06140 14199
88134 01699 03518 83091 34102 95660 15013 000 000

*Courtesy Gert***M14 IA MCW / ICW Short 0****November 2017:**

4023	1600 - 1620z	08 Nov	273 (357 78) 61726 87672 92847 60577 00000 (Via Silec, Poland)	MCW	E.SMITH	WED
	1600z	22 Nov	273 00000		HFD	WED
4975	1800z	03 Nov	382 (468 62) = 53445....		HFD	FRI
5240	2300z	05 Nov	375 (027 45) = 45632 ... 27843 027 45	Very strong	PLdn	SUN
	2300z	12 Nov	376 (025 30) = 034253 ... 70689 025 30 00000	[Note 1] Very strong	PLdn	SUN

	2300z	19 Nov	376 (121 56) = 45644 ... 67312 00000		Very strong	PLdn	SUN
5374	1700z	03 Nov	382 (468 62) = 53445....			HFD	FRI
5430	0800z	04 Nov	171 (027 45) = 45632....			HFD	SAT
	0800 - 0810z	11 Nov	171 (025 30) = 34253 75648 ... 75624 70689 00000	(Via Silec, PL.)	MCW	E.SMITH	SAT
5560/1	0900z	04 Nov	171 (027 45) = 45632....			HFD	SAT
	0900 - 0910z	11 Nov	171 (025 30) = 34253 75648 75624 70689 00000	(Via Silec, PL.)	MCW	E.SMITH	SAT
5825	0000z	06 Nov	375 (027 45) = 45632 ... 27843 027 45		Very strong	PLdn	MON
	0000z	13 Nov	376 (025 30) = 034253 ... 70689 025 30 00000		Fair, QSB3/4	PLdn	MON
	0000z	20 Nov	376 (121 56) = 45644 ... 67312 00000		Strong, QSB4	PLdn	MON
8167	1203 (IP) - 1213z	02 Nov	058 (372 51) = 44381 96967 51495 32263 00000	(Via Enschede)	ICW	E.SMITH	THU
9463	1306 (IP) - 1321z	07 Nov	801 (537 24) = 44304 22306 19182 08168 00000		ICW	E.SMITH	TUE
10423	1131 (IP) - 1143z	02 Nov	058 (372 51) = 44381 96967 51495 32263 00000	(Via Enschede)	ICW	E.SMITH	THU
17458	0930 - 0934z	10 Nov	617 00000		ICW	E.SMITH	FRI
18041	0500z	03 Nov	952 (600 55) = 70995....			HFD	FRI

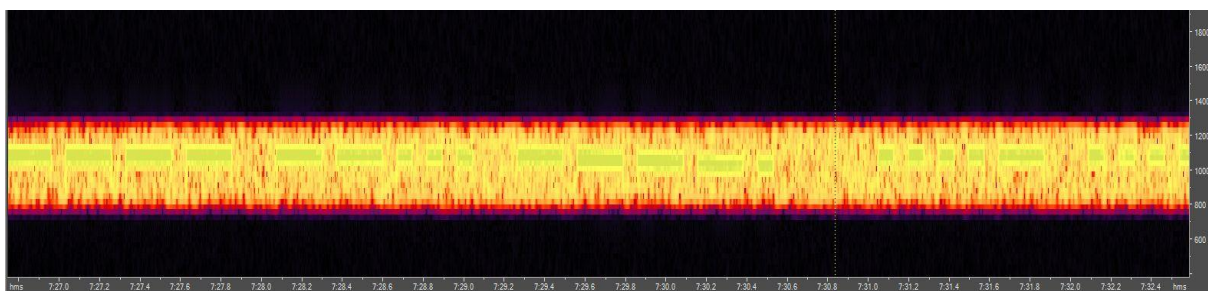
[Note 1] At 2323z the following was sent : 4905 77821 48826 95842 64460 96967 67816 9388
This was not present on the 5825kHz repeat at 0000z

December 2017:

5240	2300z	03 Dec	376 349 56 45644 ... 67312 349 56 00000	[Notes 2 & 3]	Strong	PLdn	SUN
	2300z	10 Dec	376 3 707 42 89734 ... 76534 707 42 00000	[Note 4]	Very strong	PLdn	SUN
	2300z	17 Dec	376 3 707 42 89634 ... 76534 707 42 00000	[Note 5]	Strong	PLdn	SUN
	2300 - 2314z	24 Dec	376 241 40 == 34526 ... 18726 == 241 40 00000	[Note 6]		PLdn	SUN
	2300z	31 Dec	376 37 241 40 == 34526 ... 18726 == 241 40 00000	[Note 7]	Strong	Gert/PLdn	SUN
5825	0000z	04 Dec	376 349 56 45644 ... 67312 349 56 00000		Fair, noisy	PLdn	MON
	0000z	11 Dec	376 3 707 42 89734 ... 76534 707 42 00000	[Note 4]	Weak	PLdn	MON
	0000z	18 Dec	376 3 707 42 89634 ... 76534 707 42 00000	[Note 4]	Strong	PLdn	MON
	0000 - 0014z	25 Dec	376 241 40 == 34526 ... 18726 == 241 40 00000	No further traffic noted		PLdn	MON

[Note 2] At 2255z single group '254' sent.

[Note 3] The nominal frequency of Morse sent was c1070Hz. Throughout the 03/12 sending a noticeable change in frequency occurred between -15 to +30Hz every 4 or 5 groups.



M14 5240kHz 2300z 03 Dec Image showing frequency change during transmission (Note 3 above) *Courtesy PLdn*

[Note 4] Note single, extra fig 3 in intro.

[Note 5] At 2316z : 833 51170 70865 59994 32201 63170 26423 35162 20160 95788 21389 209W [ends 2317z]

[Note 6] At 2323z: 701 99307 34246 06695 28041 05123 792D

[Note 7] On both the 2300z 31 Dec sending and the 01 Jan repeat the errant '3' repeatedly seen at the end of the '376' intro has now become '37' & that = = is now included in sending, after some absence.

M14 10423kHz 1130z 02 Nov 2017 058 (R4m) 372 372 51 51 == 44381 96967 28264 88112 36931 17582 72131 68741 33163 97295 28995 72167 84013 11078 50138 12009 18590 84517 38781 55704 05785 95651 27950 57627 38648 90556 27208 36458 39942 04903 99154 01465 12337 08649 51662 57408 81658 16068 56760 42743 06658 28299 32131 80805 53701 00600 46125 48682 59860 51495 32263 == 372 372 51 51 00000 <i>Courtesy E.SMITH</i>	M14 5240kHz 2300z 31 Dec 2017 376 (R4m) 241 241 40 40 == 34526 36452 73654 83654 92635 32413 26478 15236 83764 91724 17236 92783 47536 29167 81724 73564 17625 36452 17625 83746 91726 63745 28651 16235 92673 46372 18726 36452 17625 38763 35462 78364 18725 93748 17625 36213 27653 87465 39826 18726 == 363 363 50 50 00000 <i>Courtesy Gert</i>
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M23 O ICW

This submission from PoSW follows an M23 signal from its discovery to conclusion, & provides an excellent comprehensive diary of events, including the characteristic 'blip' of carrier on sched, when the transmission itself fails to appear.

Some M23 Morse, a three-figure number repeated slowly for ten minutes or so, noted towards the end of November, only heard at half-past four in the afternoon UK time:-

20-Nov-17, Monday:- 1633 UTC, 5345 kHz, slow CW sending, "111", strong signal, over S9 for most of the time, stopped around 1640z. M23 has been observed on this frequency in the past. Nothing further heard for the remainder of the evening but that characteristic quick "blip" of carrier heard several times around the top of the hour.

21-Nov-17, Tuesday:- 1630 UTC, 5345 kHz, "111" again, in progress when tuned in a few seconds before the half-hour, strong signal, stopped shortly before 1640z.

27-Nov-17, Monday:- 1629:45s UTC, 5345 kHz, "111", over S9. A one second or so of carrier had been heard about three minutes earlier, a sign that something was about to happen. Stopped sending at approx 1639:50s UTC.

28-Nov-17, Tuesday:- 1629:48s UTC, 5345 kHz, "111", signal varying between S7 and S9. Quick burst of pre-transmission carrier heard at 1626:56 UTC.

29-Nov-17, Wednesday:- 1629:45s UTC, approx, 5345 kHz, still "111", peaking over S9, short pre-transmission carrier heard at 1626:50s UTC.

30-Nov-17, Thursday:- 1629:45s UTC, 5345 kHz, "111", as always, peaking well over S9, the usual pre-transmission carrier heard at 1626:50s UTC; stopped in full-flow at 1639:49s UTC.

Did not show up on Friday 01-December, although the brief bursts of carrier were heard several times during the day about 15 to 20 seconds before the hour.

The quick burst of carrier continued to be heard in December, gradually appearing just a little bit earlier as the days went by, checked once on most days:-

02-Dec-17, Saturday:- heard at 0959:40s UTC; 4-Dec-17, Monday:- heard at 1559:35s UTC, no M23 activity heard at 1630 UTC.

05-Dec-17, Tuesday:- heard at 0859:33s UTC; 6-Dec-17, Wednesday:- heard at 1459:33s UTC.

07-Dec-17, Thursday:- heard at 1559:30s UTC, and today the M23 was back:-

1636 UTC, suddenly realised the time, M23 in progress on 5345 sending "111", peaking S9 with QSB, stopped at 1639:30s UTC.

09-Dec-17, Saturday:- 1630 UTC, missed the start, "111" M23 in progress when 5345 kHz tuned in just after the half-hour. Peaking S9, fading down to a much weaker signal at times, stopped 1639:24s UTC.

10-Dec-17, Sunday:- 1630 UTC, in progress with "111", weak signal down in the noise, came up stronger before ending at 1639:24s UTC.

12-Dec-17, Tuesday:- 1508 UTC, 5345 kHz, not noted active at this time before, realised the receiver running on 5345 was making Morse type noises, sending "456", first time heard with anything other than all the ones. Stopped at approx 1514:20s UTC followed by a single long dash, so presumably would have started after 1504z if the transmission was of the usual ten minutes or so duration.

1629:30s UTC, in progress with the usual "111", having just started, no doubt. Weak signal, stopped at 1639:20s UTC.

13-Dec-17, Wednesday:- 1631 UTC, in progress when tuned in, "111", stopped 1639:20s UTC.

14-Dec-17, Thursday:- 1629:20s start time, "111" weak signal.

5345 checked at around 1630z on several - although not all - days in the run-up to Christmas but M23 CW not heard again; however, the quick burst of carrier before the top of the hour heard several times, gradually appearing just a little bit earlier as the days passed:-

20-Dec-17, Wednesday:- heard at 1259:05s UTC,

22-Dec-17, Friday:- heard at 1059:03s UTC and at 1559:01 UTC.

24-Dec-17, Sunday - Christmas Eve:- heard at 1559 UTC, a full minute before the hour.

Made a special point of listening for Morse activity on 5345 at 1630 UTC since I am going to be away for the next couple of days, but nothing heard.

Update:- Returning to the real world after the Christmas festivities, the quick burst of carrier still making an appearance:-

28-Dec-17, Thursday:- carrier heard on 5345 at 0858:50s UTC, one minute and ten seconds before the hour, someone's clock is running fast.

Thanks PoSW

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

No Reports

M76 Schedule on 3280kHz (Changes to 3820kHz or 3294kHz over the year). A detailed analysis can be found in ENIGMA Newsletter 93 - May2016.

Difficult to receive with a good signal into the UK most of the time, monitors rely on various SDRs for logs of this station.

No Reports

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

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.

No reports for a long time on this one. May now have ceased?

Morse Stations - Not Number Related

M51 XIX **M51a** (FAV22) Daily Mon - Fri, Sun & some Sats. See NL 72 for details

No Reports

M89 O

This is a summary of activity from the M89 stations.

Traffic & Operator Chat from M89

Traffic & Op. chat reported on the following freqs. (All in kHz).

3636 3829	4047 4111 4138 4153 4161 4193 4255 4357 4366 4367 4379 4394 4432 4477 4529 4538 4539 4545 4641 4847 4901	5123 5254 5280 5284 5323 5331 5379 5391 5555 5566 5667 5682 5696 5700 5740 5780 5798 5893	6232 6291 6725 6836 6890	7295 7332 7490 7545 7782 7838 7878 7915 7960	8888 8951	9191 9395	10231 10312 10524 10547 10641 10918	11082
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New Scheds for Nov / Dec 2017:

From logs submitted from JPL

5743//NRH	New frequency for this Round Slip	First heard 05 Nov	V UISD (x3) DE CBFG (x2)
5743//9131	// found for this Round Slip	First heard 16 Nov	V UISD (x3) DE CBFG (x2)
4620//4860//6840	New frequency for this Round Slip	First heard 06 Nov	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) QSA ? K
6554	New frequency for DP91	First heard 11 Nov	CQ (x3) DE DP91 (x2) V
4125//5479	New Round Slip for this net	Used only on 28 Nov	V VDFF (x3) DE LIUM (x2)
5743//9131	New Round Slip for this net	Used only on 28 / 29 Nov	V VDFF (x3) DE LIUM (x2)
6730//8060	New // frequency for this Round Slip	First heard 14 Dec	V M8JF (x3) DE RIS9 (x2)
4067//4847	Sending different Round Slips	First heard 29 Dec	V EDC3 (x3) DE VF4R (x2) 4067kHz V ZVRQ (x3) DE 3WRX (x2) 4847kHz

Chart of M89 Freq & Call signs heard in Nov / Dec 2017

New Scheds shown in Bold Type

From logs submitted from JPL

<u>Freq in KHz</u>	<u>Call Slip</u>
3777//4532	V M8JF (x3) DE RIS9 (x2)
4067//NRH	V 6TGU (x3) DE GR4W (x2)
4067//NRH	V EDC3 (x3) DE VF4R (x2)
4067//4847	V 6TGU (x3) DE GR4W (x2)
4125//NRH	V UISD (x3) DE CBFG (x2)
4125//5479	V UISD (x3) DE CBFG (x2)
4125//5479	V VDFF (x3) DE LIUM (x2)
4131//NRH	V JKDJ (x3) DE SLBC (x2)
4532//NRH	V M8JF (x3) DE RIS9 (x2)
4620//4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) QSA ? K
4620//4860//6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) QSA ? K
4720//5150	VVV WNF (x3) DE FXM (x2)
4847//NRH	V ZVRQ (x3) DE 3WRX (x2)
4860// NRH	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) QSA ?
4860// 6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) QSA ?
5479//NRH	V UISD (x3) DE CBFG (x2)

<u>Freq in kHz</u>	<u>Call Slip</u>
5743//NRH	V UISD (x3) DE CBFG (x2)
5743//9131	V UISD (x3) DE CBFG (x2)
6169//NRH	V 6TGU (x3) DE GR4W (x2)
6169//10253	V 6TGU (x3) DE GR4W (x2)
6730//8060	V M8JF (x3) DE RIS9 (x2)
6793//8060	V M8JF (x3) DE RIS9 (x2)
6840//NRH	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) QSA ? K
6840//10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) QSA ? K
6840//8290//10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) QSA ? K
7620//8350	V WNF(x3) DE FXM (x2) (R5) QSA ? QSV K
8350//NRH	V WNF (x3) DE FXM (x2)
9131//NRH	V UISD (x3) DE CBFG (x2)
9131//NRH	V VDFF (x3) DE LIUM (x2)
10253//NRH	V 6TGU (x3) DE GR4W (x2)
<i>Courtesy JPL</i>	

<p>M89 4539kHz 0037 (IP) - 0044z 07 Nov 2017</p> <p>RMKS 62.4 TO 6280 K K (IP – Hand sent – 0037z) K K (0038z) GA K K (0041z) HR NR NR 3119/EX 0835 RMKS 6264 TO 6280 BT BT VC/R8 AR HR NR 3119/EX 0835 RMKS 6264 TO 6280 BT BT VC/R8 AR K K (0043z) R R R R</p> <p>M89 9131kHz 0824 (IP) - 0900z 08 Nov 2016</p> <p>V UISD (x3) DE CBFG (x2)</p> <p>VV SVC GA HR SVC GA (From R/S – Machine sent – 0858z) NR 011 1700 RMKS 3120 6219/4542 BT COMM/1.3./79A/5312/6219 AR NR 011 1700 RMKS 5312 TO 6219/4542 BT COMM/1730/799A/5312/6219 AR HR WK NR 31 (Return to R/S – 0900z) (Monitored until 0908z)</p>	<p>M89 5331kHz 0702 (IP) - 0709z 16 Dec 2017</p> <p>BT I7T5/F4HH AR (IP – 0702z) QSY NR 05 QSY NR 05 QSY NR 05 QSY NR 05 VVV VVV VVV (0703z) 4VYR (Cont'd – 0703z) FFF NR 1262 C EEEEE C EEEEE NR 1262/EX 1503 BT H.P2/Z3P8 NR 1262/EX 1503 BT H9G2/Z3P8 AR NR 1262/EX 1503 BT S9G2/Z3P8 AR QSY A EEEEE QSY NR 12 QSY NR 12 QSY NR 12 QSY NR 12 (0706z) VVV VVV(Cont'd – 0706z) FFF NR 1263/EX 1506 BT H7.3/A7Q4 AR NR 1263/EX 1506 BT H7O3/A7Q4 AR NR 1263/EX 1506 BT H7O./A7Q4 AR QSY NR 15 QSY NR 15 QSY NR 15 QSY NR 15 VVV VVV (0709z)</p> <p><i>Courtesy JPL</i></p>
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DP Stations

6554 0201 - 0210z 11 Nov CQ (x3) DE DP91 (x2) V (IP - Cont'd) (Remote tuner Siberia) JPL SAT
CQ (X3) DE DP91 (x2) V (IP – Cont'd – Machine sent – 0201z) (Unable to find // which should be on 8Mhz)

M95 O XSV, XSV70, XSV85

Change of Group - V DKG6 (x3) DE 3A7D (x2)

Previously, the group of stations using this round slip have been reported as M89. The frequencies of these transmissions are mainly on 3642/7602kHz & 5801/10180kHz. Having looked at his previous notes & logs Jean-Paul, (JPL), has determined that as this station sends /CCK CK messages - albeit rarely, that the correct designation would be M95. In future all logs for this round slip will be reported as M95.

M95 Morse Logs (Bold type indicates new logging)

3589//NRH	Call sign ZFJ4					
	1411 - 1447z	16 Dec	NR 007/CKK CK 96 BT	(Remote tuner China)	JPL	SAT
3642//NRH	Call sign 3A7D	(All logged via Remote tuner Siberia)				
	1413 (IP) - 1423z	07 Nov	NR 028/CCK CK 91 62 11072200 RMKS 6354 TO 6570 BT		JPL	TUE
3642//5801	Call sign 3A7D	(All logged via Remote tuner Siberia)				
3642//7602	Call sign 3A7D	(All logged via Remote tuner Siberia)				
	1610 (IP) - 1647z	07 Nov	NR 152 0030 RMKS 6354 TO 6778 BT CL/0100/ZBT/A474/6878 AR		JPL	TUE
	1258 (IP) - 1259z	28 Nov	NR 11.. 00 RMKS 6354 TO 6635/6604 BT CL/2130/ZBT/6354/6635 AR		JPL	TUE
4243//NRH	Probably XSV70					
	1148 (IP) - 1238z	16 Nov	NR 066 CK 34 35 1116 1515 BT NR 32 CK 221 35 1116 1605 BT NR 019 CK 22 35 1116 1655 BT NR 020 CK 15 35 1116 1702 BT	(Remote tuner South Korea)	JPL	THU
	1144 (IP) - 1204z	20 Nov	NR 074 CK 19 35 1120 1528 BT NR 40 CK 163 35 1120 1602 BT NR 036 CK 22 35 1120 1620 BT	(Remote tuner China)	JPL	THU
	1145 (IP) - 1217z	21 Nov	NR 076 CK 31 35 1121 1500 BT NR 42 CK 179 35 1121 1605 BT NR 0.9 CK 26 35 1121 1646 BT	(Remote tuner China)	JPL	MON
	1141 (IP) - 1216z	31 Dec	NR 66 CK 17 35 1231 1604 BT NR 62 CK 115 35 1231 1623 BT NR 065 CK 15 35 1231 1700 BT	(Remote tuner China)	JPL	TUE
					JPL	TUE
					JPL	SUN
					JPL	SUN

4243//9054	Probably XSV70					
	1204 (IP) - 1225z	19 Nov	NR 38 CK 159 35 1119 1600 BT NR 033 CK 15 35 1119 1633 BT	(Remote tuner China)	JPL	SUN
	1145 (IP) - 1212z	24 Nov	NR 082 CK 22 35 1124 1440 BT NR 48 CK 182 35 1124 1635 BT NR 048 CK 24 35 1124 1703 BT	(Remote tuner China)	JPL	SUN FRI FRI FRI
	0003 (IP) - 0016z	06 Dec	NR 11 CK 066 35 1206 0700 BT	(Remote tuner China)	JPL	WED
	1147 (IP) - 1159z	07 Dec	NR 008 CK 23 35 1207 1550 BT NR 087 CK 16 35 1207 1604 BT NR 14 CK 179 35 1207 1623 BT	(Remote tuner China)	JPL	THU THU THU
	1149 (IP) - 1155z	11 Dec	NR 016 CK 30 35 1211 1540 BT NR 22 CK 164 35 1211 1605 BT	(Remote tuner China)	JPL	MON MON
	0610 (IP) - 0620z	17 Dec	NR 023 CK 39 35 1217 1033 BT	(Remote tuner South Korea)	JPL	SUN
	0844 (IP) - 0848z	19 Dec	NR 0.. CK 19 35 1219 1548 BT	(Remote tuner South Korea)	JPL	TUE
4364//8073	Call Sign XSV85					
	1133 (IP) - 1146z	16 Nov	NR 1080 CK 409 35 1116 1615 BT	(Remote tuner Philippines)	JPL	THU
	1156 (IP) - 1204z	19 Nov	NR 1103 CK 34 35 1119 1554 BT BT NR 1104 CK 54 35 1119 1604 BT BT	(Remote tuner China)	JPL	SUN SUN
	1130 - 1144z	20 Nov	NR 1108 CK 324 35 1120 1602 BT	(Remote tuner China)	JPL	MON
	1130 - 1145z	21 Nov	NR 1112 CK 306 35 1121 1550 BT	(Remote tuner China)	JPL	TUE
	1130 - 1141z	24 Nov	NR 1124 CK 277 35 1124 1543 BT	(Remote tuner China)	JPL	FRI
	0022 (IP) - 0027z	06 Dec	NR 1172 CK 36 35 1206 065A BT	(Remote tuner China)	JPL	WED
	1130 - 1146z	07 Dec	NR 1177 CK 461 35 1207 1600 BT	(Remote tuner China)	JPL	THU
	1134 - 1147z	11 Dec	NR 1193 CK 45 35 1211 16.3 BT NR 1194 CK 274 35 1211 1615 BT	(Remote tuner China)	JPL	MON MON
4789	No call Sign logged			(Remote tuner China)		
	0139 (IP) - 0144z	19 Nov	MSG NR 121/CCK CK 200 85 1119 0937 RMKS 5426 TO 2190 K		JPL	SUN
5544	1325z (IP)	28 Nov	Msg in 3-character code - No headers logged	(Remote tuner South Korea)	JPL	TUE
5555	Call sign XSV85					
	1332 - 1353z	15 Dec	/CCK CK 50 24 1021 1500 RMKS 59.. TO 393 BT	(Remote tuner Siberia)	JPL	FRI
	0902 (IP) - 0917z	28 Dec	NR 5773 CK 3. 77. 4153U 2 U1.21 RMKS BT 1063125.. 70	(Remote tuner China)	JPL	THU
5628	0836 (IP) - 0844z	12 Dec	NR 001/CCK CK 99 23 1212 1645 RMKS 9147 TO 8651	(Remote N. Korea)	JPL	TUE
5744	0714 (IP) - 0726z	23 Dec	05 05 (IP – Hand sent – Long zero – 0726z)	(Remote tuner South Korea)	JPL	SAT
5757	1123 (IP) - 1130z	11 Dec	NR 001/CCK CK 191 03 1211 1915 RMKS 6518 TO 6319 K	(Remote China)	JPL	MON
5801//10180	Call Sign 3A7D	(All logged via Remote tuner Siberia)				
	1130 - 1132z	03 Nov	NR 0405 1930 RMKS 05354 TO 6501 BT CL/2000/Z.A474/6501 AR QSL		JPL	FRI
	0925 - 0929z	04 Nov	NR 018 ... 0891.6354 TO 6564 BT CL/1800/E ZBT/0474/6564 AR QSL?		JPL	SAT
	0938 - 1112z	05 Nov	NR 019 1730 RMKS 354 TO 6804 BT COMM/1800/XZ479/90/6357/6804 AR QSL? NR 021/CCK 99 19 1105 1810 RMKS 6354 TO 6385 6541 6574 6578 6671 BT NR 009 1830 RMKS 6354 TO 6574 BT CL/1900/ZBT/A474/6574 AR NR 110 1930 RMKS 6354 TO 6570 BT CL/2000/ZBT/A474/6570 AR NR 111 2030 RMKS 6354 TO 6578 BT CL/2100/ZBT/A474/6578 AR NR 025 2030 RMKS 6354 TO 6875 68911 BT COMM/2100/XZ479/92/6357/6875 AR		JPL	SAT SUN SUN SUN SUN SUN
	0808 - 1111z	06 Nov	NR 1251 0530 RMKS 6354 TO 8979 BT CL/1700/ZBT/A474/8979 AR NR 1205 1730 RMKS 6354 TO 6892 BT CL/1800/ZBT/A474/6802 AR NR 029 1800 RMKS 6354 TO 6539 / 6524 BT COMM/1830/.479/90/6357/6539 AR NR 127 1830 RMKS 6354 TO 6816 BT CL/1900/ZBT/A474/6816 AR		JPL	MON MON MON MON
	0931 (IP) - 1206z	07 Nov	NR 034 1800 RMKS 6354 TO 6897/6564 BT COMM/1830/XZ479/90/6357/6897 AR NR 146 1830 RMKS 6354 TO 6894 BT CL/1900/ZBT/A474/6894 AR NR 147 1930 RMKS 6354 TO 6685 BT CL/2000/ZBT/A474/6685 BT NR 035 2030 RMKS 6354 TO 6589 /6560 / BT COMM/2100/XZ479/92/6257/6589 AR		JPL	TUE TUE TUE TUE
	1206 (IP) - 1403z	07 Nov	NR 027 2100 RMKS 6354 TO 6501 / 6524 BT CL/2130/ZBT/6354/6501 AR NR 028 2110 RMKS 6354 TO 6570 / 574 BT CL/2200/ZBT/6354/6570 AR		JPL	TUE TUE
	0757 (IP) - 0818z	08 Nov	COMM/1630/XZ479/90/6357/8.11 AR		JPL	WED
	0802 (IP) - 0804z	21 Nov	NR 030/CCK CK 299 19 1108 1600 RMKS 6354 TO 6671 6.1. 6629 6834 65.4 BT NR 103 1600 RMKS 05354 TO 60572 BT COMM/1630/MI 479/92/05357/60572 AR		JPL	WED TUE
6262	V B52H (x3) DE NT85 (x2)	New frequency for this Round Slip		22 Dec		
	1401z	22 Dec	V B52H (x3) DE NT85 (x2) (IP - Cont'd) [Having problems with R/S. Now sending: B2HNT85 (x3) DE V]	(Remote tuner China)	JPL	FRI

9153	V BNEC (x3) DE XSV70 (x2)							
	0050 (IP) - 0054z	16 Nov	Msg in 3-character code. No header logged	(Remote tuner South Korea)	JPL	THU		
9191	V B52H (x3) DE NT85 (x2)							
	0801 (IP) - 0809z	06 Dec	NR 005/CKK CK 99 64 1206 1600 FM ? 9191D FM 3 9191D3 FM 5678D. 3 369.FM 32351 BT			WED		
10180	Call Sign 3A7D (See also 5801//10180)		(All logged via Remote tuner Siberia)					
	1001 (IP) - 1003z	24 Nov	NR 119 1800 RMKS 05354 TO 055053 BT COMM/1830/1830/0UZ/1200/90/053570/65053 AR			FRI		
10999	/JC in Message header - Only similar format is used by M95 stations /CCK		(Remote tuner China)					
	0848 (IP) - 0922z	13 Nov	NR 38/JC CK 94 91 1113 1525 RMKS 2082 TO 0942 TO 0943 TO 8184 TO 2082 K K	JPL	MON			
			NR 75/CCK CK 56 86 1113 1656 RMKS 2082 TO 8180 K					
			NR 75/CCK CK 56 86 1113 1703 RMKS 8184 TO 2082 K K					
			NR 76/CCK CK 93 86 1113 1706 RMKS 2082 TO 8184 K					
			HR 7G NR 76/CCK CK 93 86 1113 1715 RMKS 8184 TO 2082 K K					

M95 10180kHz 0938 - 1122z 05 November 2017

V DKG6 (x3) DE 3A7D (x2)

VV HR MSG GA (From R/S – Hand sent – 1013z)
NR 021/CCK 99 19 1105 1810 RMKS 6354 TO 6385 6541 6574 6578 6671 BT
N67D A73A AU43 5U7D N56A NAU6 73U4 UAD3 DU63 ND65 (Cont'd – 1015z)
AR QSL ? HR WK NR 10 (Return to R/S – 1023z)
HR SVC GA (From R/S – Hand sent – 1027z)
NR 009 1830 RMKS 6354 TO 6574 BT CL/1900/ZBT/A474/6574 AR
QSL ? HR WK NR 10 (Return to R/S – 1029z)
SVC GA (From R/S – Hand sent – 1048z)
NR 110 1930 RMKS 6354 TO 6570 BT CL/2000/ZBT/A474/6570 AR
QSL ? HR WK NR 10
VVV HR SVC GA
NR 111 2030 RMKS 6354 TO 6578 BT CL/2100/ZBT/A474/6578 AR
QSL ? HR WK NR 10
VV HR SVC GA
NR 025 2030 RMKS 6354 TO 6875 68911 BT COMM/2100/XZ479/92/6357/6875 AR
QSL ? HR WK NR 10 (Return to R/S – 1052z)
VV HR SVC GA (From R/S – Hand sent – 1055z)
NR 111 2030 RMKS 6354 TO 6578 BT CL/2110/ZBT/A474/6578 AR
QSL ? HW WK NR 10 (Return to R/S – 1057z)

(Faded out - 1112z) (Switched to monitoring 5801kHz)

Courtesy JPL

Marker Beacons (MX MXI)

Edd, (E.SMITH), reports an irregular 'V' beacon that was active in late December. Monitored via the remote SDR, Silec, Poland

5342	1257z	21 Dec	MX	CW Beacon 'V'	In progress	E.SMITH	THU
	1356z	22 Dec	MX	CW Beacon 'V'	In progress - NRH at 1440z when checked	E.SMITH	FRI
	1347z	27 Dec	MX	CW Beacon 'V'	In progress - NRH at 1455z when checked	E.SMITH	WED

Oddities

4020kHz Marker

4020	1846z	05 Nov	Marker	(Airhorn)	Good	USB	chpa	SUN
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4524kHz Marker

4524	1851z	05 Nov	Marker	[signalling...]	Good	USB	chpa	SUN
	1453z	28 Nov	Marker	[signalling...]	Excellent	USB	chpa	TUE

6360kHz Marker

6360	1455z	28 Nov	Pulsing signal	(Goose)	Moderate	USB	chpa	TUE
	0830z	11 Dec	Pulsing signal	(Goose)	Excellent	USB	chpa	MON

<u>S28</u>	<u>'The Buzzer'</u>							
4625	0831z	11 Dec	S28	'The Buzzer'	Moderate	USB	chpa	MON
<u>S30</u>	<u>'The Pip'</u>							
3756	1853z	05 Nov	S30	'Pip' Marker (Night freq)	Good	USB	chpa	SUN
	1929z	08 Nov	S30	'Pip' Marker (Night freq)	Good	USB	chpa	WED
	0448z	14 Nov	S30	'Pip' Marker (Night freq)	Good	USB	chpa	TUE
<u>S32</u>	<u>'Squeaky Wheel'</u>							
3828	0449z	14 Nov	S32	'Squeaky Wheel' marker	Moderate	USB	chpa	TUE
<u>Contributors:</u> AB, AnonUS, BR, CB, chpa, E.SMITH, Gert, HFD, JPL, PLdn, PoSW <i>Thank you all for your logs.</i> GZOO XMDV XDZQ								

Voice, Polytone, Tones, Hybrids and FSK

E06

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

2-Nov-17:- 2029 UTC – start-up time purely nominal, calling “321” when tuned in just before 2029z - 4836 kHz DK/GC “149 149 52 52”, the sequence of 5-figure groups used many times by this schedule and by the related G06 for just over a year, starts with, “12265 10965 47839”, S9 signal.

16-Nov-17:- 4836 kHz, “149 149 52 52” again, signal somewhat weaker than usual, local QRM a pain at these lower frequencies.

7-Dec-17:- 4836 kHz, “321 321 321 00000”, somewhat unusual for this schedule to show up with a “no message” transmission. S9 signal, had started when tuned in just after 2029 UTC, stopped well before 2033.

Friday 2130 UTC Schedule Following First + Third Thursdays:-

17-Nov-17:- 4760 kHz, calling “472”, DK/GC the ever-popular “149 149 52 52”, signal S7 at best, competing with local interference.

8-Dec-17:- 4760 kHz, call “472”, DK/GC “183 183 77 77”, a long message by the standards of this and related schedules in contrast with the “no message” of yesterday.
Had started when tuned in just before 2129 UTC, ended after 2145.

22-Dec-17:- 4760 kHz, voice started about 20 seconds before the half-hour, “472” and DK/GC “134 134 57 57”. “All the varieties, fifty seven”. Looks like the same message transmitted by the G06 German YL on Friday 24-November.

RNGB's logs:

E06 Nov/December log:

First /Third Thursday (repeats Friday)

0600z 18285Hz 0700z 20140kHz

02/11 ‘507’ 482 61 26336 92594 56671 44444 37275 36092 86434 63113 14136 55894 11515 36740 13334 48005 01562 03857 80500 77584 57380 18568
12116 25861 89273 28155 98473 88711 53675 75028 27765 62839 27784 88610 39277 80481 26865 90609 43470 78593 33915 62098
51155 13445 16381 45853 78925 56554 59614 82383 23055 32923 51757 03091 19039 87479 59732 28991 28964 90688 01040 48443
23898 482 61 00000

0600z 14575kHz 0700z 17420kHz

07/12 ‘923’ 607 54 58819 80155 54424 96135 43771 38501 25693 08285 74065 90354 50054 71479 76577 33545 08916 29066 24550 91886 84311 81033
42035 81114 07335 19926 52173 94058 02756 47704 30267 09745 53279 90752 47572 56109 31858 55220 16751 81011 75518 89886
74924 11236 99121 48719 65254 04175 72506 70341 03005 21864 09450 16578 37009 82080 607 54 00000

21/12 ‘923’ 786 51 ????? 73711 27643 15697 16414 82460 67064 87265 25767 88663 94786 06963 17454 52092 31706 64565 41119 01698 01274 45773
42419 26580 28057 43802 14359 01414 08651 32718 57714 57294 09648 76024 17718 33933 72342 68944 89202 74127 28866 37824
07395 46462 59426 45110 66533 07171 45358 73326 33515 37090 97653 786 51 00000

First/Third Thursday of month

2030z 4836kHz (frequency may vary slightly)

02/11 2028z ‘321’ 149 52 12265.....95732 149 52 00000] 2041z S9+10 Malc
07/12 2028z ‘321’ x 3 00000 S8 Malc

Friday following First & Third Thursday
2130z 4760kHz

03/11 '472' 149 52 12265.....95732 149 52 00000] 2144Z S4 Malc

08/12 '472' 183 77 73413 48673 92659 68289 43584 32573 24589 34134 65918 95946 19647 87484 25986 28546 59196 27324 59872 48247 28485 96176
87475 92763 83465 14592 56293 28983 29384 98329 21839 32874 93284 98324 59693 25932 15959 61893 26498 23128 96197 12387
13249 76324 76743 43656 87961 28763 54872 35812 54871 63248 64726 56295 91262 52964 52765 43532 47274 12636 32127 63163
47263 47623 76275 26543 76437 36437 64236 43764 28976 49276 42897 73428 34563 92473 91242 17492 27491 183 77 00000

22/12 '472' 134 57 69834 91020 28974 71856 74832 89648 73282 64825 48142 73848 36457 38491 82713 43143 65689 28756 42351 73145 32424 67857
83273 56425 34245 23246 76879 87435 28184 61547 93671 75364 72825 34732 53426 47589 73647 58326 15264 37485 63542 43557
64536 47586 76453 45684 65783 74859 82736 47382 74651 27631 72361 74827 36452 35263 72813 26743 84732 134 57 00000

E07

E07 schedules continue to appear on the same frequencies as in the same months in years past and move by one hour as of November to appear at the same local time.

Sunday + Wednesday Schedule, 1800 UTC Start:-

5-Nov-17, Sunday:- 1800 UTC, that's 6 PM in the UK, 8153 kHz, "184 184 184 1" for a "full message", DK/GC "794 83", S9 with QSB, audio low and difficult to hear.

1820 UTC, 6853 kHz, second sending, also S9 with low audio.

1840 UTC, 5453 kHz, third sending, again S9 carrier but low audio.

8-Nov-17, Wednesday:- 1800 UTC, 8153 kHz, weak signal, low audio, unreadable. Carrier did not go off at 1802:30s UTC so not "no message".

1820 UTC, 6853 kHz, and 1840 UTC, 5453 kHz, both low audio and unreadable. Best of luck with that, then, agent "184".

12-Nov-17, Sunday:- 1800 UTC, 8153 kHz, weak signal, underneath strong wide-band "buzz" sound extending from approx 8135 to 8165 kHz, someone's over-the-horizon radar perhaps, this thing can usually be found in some part of the short-wave spectrum at most times of the day, E07 unreadable.
1820 UTC, 6853 kHz, "184 184 184 000", audio low, just about readable.

22-Nov-17, Wednesday:- 1800 UTC, 8153 kHz, "184 184 184 000", audio low but readable - just about - which makes a change for this schedule.

1820 UTC, 6853 kHz, also with low audio.

29-Nov-17, Wednesday:- 1800 UTC, 8153 kHz, and 1820 UTC, 6853 kHz, "184 184 184 000", both transmissions peaking S9 with unusually good audio for this schedule.

3-Nov-17, Sunday:- 1800 UTC, 7464 kHz, "485 485 485 1", difficult copy due to a strong broadcast station on 7465.

1820 UTC, 5864 kHz, peaking S9, audio low, DK/GC "211 43" x 2.

1840 UTC, 4564 kHz, peaking over S9 with QSB, audio low but mostly readable, best sending of the three.

6-Dec-17, Wednesday:- 1800 UTC, 7464 kHz, weak signal, interference from very strong broadcaster on 7465, unreadable.

1820 UTC, 5864 kHz, "485" and "211 43" again.

2020 UTC, 4564 kHz, third sending with the usual low audio.

Thursday Schedule, 2110 UTC Start:-

2-Nov-17:- 2110 UTC, 6777 kHz, very low audio, unreadable, carrier went QRT 2112:30s UTC so must be "no message".

2130 UTC, 5449 kHz, second sending, very low audio, could just about make out the "000", the fast-talking lady in SSB with weather info on the HF side.

9-Nov-17:- 2110 UTC, 6777 kHz, weak signal with low audio, carrier off 2112:30s.

2130 UTC, 5449 kHz, also weak with low audio.

16-Nov-17:- 2110 UTC, 6777 kHz, "744 744 744 1" for a "full message, low audio, everything else unreadable.

2130 UTC, 5449 kHz, also low audio.

2150 UTC, 4483 kHz, third sending, low audio and deep QSB.

23-Nov-17:- 2110 UTC, 6777 kHz, "744 744 744 000", audio low but readable.

14-Dec-17:- 2110 UTC, 6777 kHz, weak signal, low audio, unreadable. Carrier did not go QRT at 2112:30s UTC which means "full message" format and the use of all three frequencies.

2130 UTC, 5449 kHz, "744 744 744 1", about all that could be heard on account of the less than one hundred percent modulation.

2150 UTC, 4483 kHz, third sending, low audio again, noisy frequency, unreadable. Best of luck with that then, agent 744.

Monday + Wednesday SSB Schedule, 2000 UTC Start:-

1-Nov-17, Wednesday:- 2000 UTC, 7616 kHz, "682 682 682 000", peaking over S9.

2020 UTC, 6816 kHz, second sending, slightly weaker signal.

6-Nov-17, Monday:- 2000 UTC, 7616 kHz, "682 682 682 000", S9.

2020 UTC, 6816 kHz, also S9.

8-Nov-17, Wednesday:- 2000 UTC, 7616 kHz, "682 682 682 000", propagation must have taken a hit over the last couple of days, this was so weak as to be only just readable.

2020 UTC, 6816 kHz, just slightly stronger.

13-Nov-17, Monday:- 2000 UTC, 7616 kHz, “682 682 682 000” the ionosphere must have recovered since Wednesday, this was a very strong signal, S9+.

2020 UTC, 6816 kHz, second sending just a little bit weaker.

15-Nov-17, Wednesday:- 2000 UTC, 7616 kHz, and 2020 UTC, 6816 kHz, both S7 to S9, “682 682 682 000”.

22-Nov-17, Wednesday:- 2000 UTC, 7616 kHz, “682 682 682 000”, S5 to S6.

2020 UTC, 6816 kHz, second sending stronger, peaking over S9.

27-Nov-17, Monday:- 2000 UTC, 7616 kHz, and 2020 UTC, 6816 kHz, both over S9, “682 682 682 000”.

6-Dec-17, Wednesday:- 2020 UTC, 5823 kHz, “881 881 881 000”, weak but clear, 2000z sending on 6823 was too weak to copy.

11-Dec-17, Monday:- 2000 UTC, 6823 kHz, “881 881 881 000”, S8, propagation must have improved since Wednesday.

2020 UTC, 5823 kHz, slightly weaker.

20-Dec-17, Wednesday:- 2000 UTC, 6823 kHz, “881 881 881 000”.

2020 UTC, 5823 kHz, second sending, both peaking S7.

Saturday + Sunday SSB Schedule, 0700 UTC Start:-

4-Nov-17, Saturday:- 0700 UTC, 10112 kHz, “111 111 111 1” for a full message, DK/GC

“942 128” x 2, a long message, signal strength indicating S6 to S7.

0720 UTC, 11112 kHz, second sending, over S9.

0740 UTC, 12112 kHz, third sending, back to S6 to S7.

A change of frequencies from those which have been used since April.

12-Nov-17, Sunday:- 0700 UTC, 10112 kHz, “111” and “942 128” again.

0720 UTC, 11112 kHz, second sending.

0740 UTC, 12112 kHz, third sending, strongest of the three, peaking over S9.

18-Nov-17, Saturday:- 0700 UTC, 10112 kHz, “111” and “942 128”, still. Signal strength peaking around “7”.

0720 UTC, 11112 kHz, S8, and 0740 UTC, 12112 kHz, S9, repeats.

25-Nov-17, Saturday:- 0700 UTC, 10112 kHz, “111 111 111 1”, DK/GC still “942 128”, weak signal.

0720 UTC, 11112 kHz, and 0740 UTC, 12112 kHz, the repeats, both stronger, S8.

26-Nov-17, Sunday:- 0700 UTC, 10112 kHz, still “111” and “942 128”, stronger signal than yesterday, S7.

0720 UTC, 11112 kHz, S8, and 0740 UTC, 12112 kHz, peaking over S9.

2-Dec-17, Saturday:- 0704 UTC, 8123 kHz, transmission in progress, missed the start, had to check the prediction list when nothing heard on 10112.

Strong SSB signal, ended just after

0715 UTC.

0720 UTC, 9323 kHz, “134 134 134 1”, DK/GC “942 128”, the same message heard throughout November, signal strength indicating S7 to S8.

0740 UTC, 10423 kHz, third sending, also S7 to S8.

9-Dec-17, Saturday:- 0700 UTC, 8123 kHz, “134 134 134 1”, DK/GC “230 38”, a change from the message of the past several weeks. Signal strength up to S7, mostly weaker.

0720 UTC, 9323 kHz, and 0740 UTC, 10423 kHz, both weak signals.

10-Dec-17, Sunday:- 0700 UTC, 8123 kHz, “134” and “230 38” again, peaking S9.

0720 UTC, 9323 kHz, and 0740 UTC, 10423 kHz, both around S7 to S8.

16-Dec-17, Saturday:- 0700 UTC, 8123 kHz, “134” and “230 38” again, up to S7.

0720 UTC, 9323 kHz, much weaker signal than the 0700z sending.

0740 UTC, 10423 kHz, up to S9 but fading down to a much weaker signal at times.

23-Dec-17, Saturday:- 0700 UTC, 8123 kHz, “134 134 134 000”, unusual in the past few months for this schedule to come up with the “no message” routine, although

was the norm in the spring and summer months until the middle of July 2017.

0720 UTC, 9323 kHz, second sending, both transmissions around S8.

Others’ logs

Sunday/Wednesday

November 2017

1800z	8153kHz	1820z	6853kHz	1840z	5453kHz	
01/11		184 1 794 83 43680.....				Weak, unworkable to end
05/11		184 1 794 83 43680 ... 73526 000 000			[1800z strong]	Weak
08/11		Unworkable				Very weak
26/11		184 000				Weak
29/11		184 000				Weak

December 2017

1800z	7464kHz	1820z	5864kHz	1840z	4564kHz	
03/12	485 1 211 43 17735 ... 94222 000 000			[1800zBCQRM5]		Very strong
06/12	485 1 211 43 17735 ... 94222 000 000			[1800zBCQRM5]		1840zWeak, 1820z Strong
10/12	485 000			[1800zBCQRM5]		Weak
13/12	NRH					
20/12	485 000			[1800zBCQRM5]		Weak
27/12	485 000			[1800zBCQRM5]		Weak
31/12	485 000			[1800zBCQRM5]		Weak

Sunday/Saturday**November 2017**

0700z	10112kHz	0720z	11112kHz	0740z	12112kHz	
04/11	111 1 942 128 80908 ... 40182 000 000			[0700/0720z Weak, QSB3]		Fair
05/11	111 1 942 128 80908 ... 40182 000 000			[0700/0720z Weak, QSB4]		Fair
11/11	111 1 942 128 80908 ... nnnn2 000 000			[0700/0720z Weak, unworkable]		Weak QSB3/4
12/11	111 1 942 128 80908 ... 40182 000 000			[0700/0720z Weak, unworkable]		Weak QSB3/4
18/11	111 1 942 128 80908 ... 40182 000 000			[0700/0720z NRH]		Fair, QSB3
19/11	111 1 942 128 80908 ... 40182 000 000			[0700/0720z NRH]		Very weak
25/11	111 1 942 128 80908 ... 40182 000 000			[0700z NRH, 0740z Unworkable]		0720z Fair
26/11	111 1 942 128 80908 ... 40182 000 000					Weak

December 2017

0700z	8123kHz	0720z	9323kHz	0740z	10423kHz	
02/12	134 1 942 128 80908 ... 40182 000 000			[0700z Strong]		Weak, noisy
03/12	134 1 942 128 80908 ... 40182 000 000			[0720z Fair, 0740z Unworkable, heard at end]		0700z Very strong
09/12	134 1 230 38 53373 ... 07553 000 000			[0700/0720z NRH]		Weak
10/12	134 1 230 38 53373 ... 07553 000 000			[0740z Unworkable]		Weak
16/12	134 1 230 38 53373 ... 07553 000 000			[0740z Unworkable BTQRM]		Fair
17/12	134 1 230 38 53373 ... 07553 000 000			[0720/0740z Unworkable BTQRM]		Strong
23/12	134 000					Fair
24/12	134 000					Strong
30/12	134 000			[0720z Unworkable]		Weak
31/12	134 000					Weak

Monday/Wednesday**November 2017**

2000z	7616kHz	2020z	6816kHz	2040z	5216kHz	
01/11	682 000					Very strong
08/11	682 000					Very weak
27/11	682 000					Strong
29/11	682 000					Weak

December 2017

2000z	6823kHz	2020z	5823kHz	2040z	5123kHz	
04/12	881 000					Weak
06/12	881 000				[1800z NRH]	Weak
11/12	881 000					Weak
13/12	881 000					Weak
18/12	881 000					Weak
20/12	881 000					Weak
27/12	8[31] 1 183 56 86744 ... 37892 000 000					Weak

Tuesday/Friday**November 2017**

1100z	14884kHz	1120z	13384kHz	1140z	11584kHz	
03/11	835 000					Fair
07/11	835 1 4871 71 71938 ... 51191 000 000					Strong
10/11	835 1 4871 71 71938 ... 51191 000 000				[1120/1140z Weak]	Fair
24/11	835 000					Weak
28/11	835 1 8175 77 58069 ... 55591 000 000					Fair

December 2017

1100z	11493kHz	1120z	10193kHz	1140z	8193kHz	
01/12	411 1 8175 77 58096 ... 55591 000 000					Weak
05/12	411 000					Weak
08/12	411 000					Weak
12/12	411 1 3593 65 51488 ... 23474 000 000					Weak
15/12	411 1 3593 65 51488 ... 23474 000 000					Weak
19/12	411 000					Weak
22/12	411 000					Strong

Thursday**November 2017**

2110z	6777kHz	2130z	5449kHz	2150z	4483kHz	
02/11	744 000				[2130z Weak, unworkable]	Weak
16/11	744 1 000 000 Msg 8m37s lg				[2110/2130z NRH]	2150z Unworkable, odd grps
30/11	744 1 136 58 32710 ... 94381 000 000				[2130z Unworkable]	Weak

December 2017

01/12	Unworkable					
07/12	744 000					Weak
21/12	744 000					Fair
28/12	744 000				[2110zNRH]	Weak

E07a

From PoSW:

Saturday Schedule, 0900 UTC Start:-

4-Nov-17:- 0900 UTC, 11553 kHz, “515 515 515 000”, signal up and down from weak to indicated S9.
0920 UTC, 12153 kHz, second sending, second sending, also with widely varying signal strength.

18-Nov-17:- 0900 UTC, 11553 kHz, and 0920 UTC, 12153 kHz, both S7 to S8, “515 515 515 000”.

25-Nov-17:- 0900 UTC, 11553 kHz, “515 515 515 000”, S5 at best.
0920 UTC, 12153 kHz, slightly stronger.

2-Dec-17:- 0900 UTC, 11121 kHz, “124 124 124 000”, up to S8.
0920 UTC, 12221 kHz, second sending, stronger signal, over S9 at times.

9-Dec-17:- 0900 UTC, 11121 kHz, “124 124 124 000”, S7 with deep QSB.
0920 UTC, 12221 kHz, slightly stronger.

16-Dec-17:- 0900 UTC, 11121 kHz, and 0920 UTC, 12221 kHz, “124 124 124 000”, this schedule still keeping up the “no message” routine, as has been the case for some time.

23-Dec-17:- 0900 UTC, 11121 kHz, “124 124 124 000”.
0920 UTC, 12221 kHz, second sending, both around an indicated “7” on the “conservative” S-meter of a Lowe HF225 receiver. This schedule continuing with the “no message” routine as has been the case with most, and perhaps all, transmissions for some time now.

Wednesday Schedule, 2100 UTC Start:-

1-Nov-17:- 2100 UTC, 5877 kHz, “825 825 825 1 19985” for a “full message”. DK/GC “810 47” x 2, same as heard on 25-October although there has now been a seasonal change of frequencies. S9+, very strong signal.
2120 UTC, 5277 kHz, S9+, and 2140 UTC, 4577 kHz, just a little bit weaker, the repeats.

15-Nov-17:- 2100 UTC, 5877 kHz, “825 825 825 000”, rather weak signal for this schedule, peaking S7 at best.
2120 UTC, 5277 kHz, also weaker than usual, up to S8 and fading much lower at times.

22-Nov-17:- 2100 UTC, 5877 kHz, “825 825 825 000”, peaking just over the “9”.

6-Dec-17:- 2100 UTC, 5877 kHz, “825 825 825 1 39187”, DK/GC “6743 53” x 2, peaking S9.
2120 UTC, 5277 kHz, over S9.
2140 UTC, 4577 kHz, strong “XJT” churning away on much the same frequency.

20-Dec-17:- 2100 UTC, 5877 kHz. “825 825 825 1 14946”, stand by to copy a message.
DK/GC “4414 49”, signal strength S8.
2120 UTC, 5277 kHz, second sending, peaking S9 fading down to a much weaker signal at times.
2140 UTC, 4577 kHz, weakest sending of the three.

Others' Logs

Wednesday

November 2017

2100z	5877kHz	2120z	5277kHz	2140z	4577kHz	
01/11		825 1 19985 810 47 26559 ... 29909 000 000				[2140z QRM3/4] Very strong
08/11		NRH Due to poor propagation	825 000 weak via DutchSDR			
15/11		825 000				Fair, noisy
22/11		825 000				Very strong
29/11		825 000				Very strong

December 2017

06/12		825 1 39187 6743 53 62177 ... 26690 000 000				Very strong
13/12		825 000				Strong
20/12		825 1 14946 4414 49 25695 ... 29236 000 000			[2140zQRM4]	Strong
20/12		825 1 14946 4414 49 25695 ... 29236 000 000			[2140z Weak]	Strong
27/12		825 1 14946 4414 49 25695 ... 29236 000 000				Strong

Thursday**November 2017**

0530z	5111kHz	0550z	5811kHz	0610z	6911kHz	
02/11	189 1 19985 810 47 26559 ... 29909 000 000				[2140z QRM3/4]	Very strong
189 1 19985 810 47 26559 38861 55527 03537 34240 97495 62352 57571 70491 09585 61542 99247 16814 38008 01449 76625 84736 45110 40887 73274 45025 71954 39512 83923 32340 79110 46645 31290 29729 38725 47016 40080 80906 57582 63721 01563 72879 04643 24985 45318 91990 17751 57102 31056 74087 42569 29906 000 000 <i>Courtesy Edd</i>						
09/11	189 000					Weak, noisy QRN3/4
16/11	189 000					Strong, noisy
23/11	189 000				[0550z Weak, noisy]	0530z Fair, noisy, QSB3
30/11	189 000					Strong

December 2017

07/12	189 1 39187 6743 53 62177 ... 26690 000 000					Very strong
14/12	189 000					Strong
21/12	189 1 14946 4414 49 25695 ... 29236 000 000				[2040zQRM4]	Strong
28/12	189 1 14946 4414 49 25695 ... 29236 000 000					Very strong

Friday**November 2017**

1610z	8138kHz	1630z	7538kHz	1650z	6838kHz	
03/11	158 000					Fair
24/11	158 000					Weak

December 2017

1610z	5887kHz	1630z	5387kHz	1650z	5087kHz	
01/12	830 000					Strong
08/12	830 000					Weak
15/12	830 000					Weak
22/12	830 000					Fair
29/12	830 000					Strong

Saturday**November 2017**

0900z	11553kHz	0920z	12153kHz	0940z	13553kHz	
11/11	515 000				[0900z Weak, unworkable]	Weak
18/11	515 000				[0900z NRH]	Weak
25/11	515 000					Weak

December 2017

0900z	11121kHz	0920z	12221kHz	0940z	13421kHz	
02/12	124 000				[0900z Weak, noisy]	Strong, QSB2
09/12	124 000					Strong, QSB3
16/12	124 000					Weak, noisy
23/12	124 000					Fair
30/12	124 000				[0920z Unworkable]	Weak

E11 log Nov/Dec

4505kHz	0710z	05/11 [496/00] Fair		RNGB	SUN
	1605z	05/11 [232/00] Out 1608z S6		Malc	SUN
	1605z	07/11 [238/00]		Gary H	TUE
	1605z	12/11 [231/00]		Gary H	SUN
	1605z	26/11 [237/00] Out 1608z S8		Malc	SUN
	1605z	03/12 [237/00]		Gary H, Malc	SUN
	1605z	05/12 [231/00] Out 1608z S5		Malc, RNGB	TUE
	0710z	09/12 [497/00] Good		RNGB	SAT
	0710z	10/12 [497/00] Fair		RNGB	SUN
	1605z	10/12 [237/00] Out 1608z S7		Malc	SUN
	1605z	12/12 [237/00] Out 1608z S9		Malc	TUE
	0710z	17/12 [496/00] Good		RNGB	SUN
	1605z	17/12 [231/00]		Gary H	SUN
	1605z	19/12 [230/00] Out 1608z S4		Malc, Gary H	TUE
	1605z	24/12 [232/00] Strong		RNGB	SUN
5409kHz	1530z	02/11 [266/00] Out 1533z S7		Malc, Ed Smith	THU
	1530z	09/11 [267/00]		Gary H	THU
	1530z	30/11 [264/00] Out 1543z S9		Malc	THU
	1530z	14/12 [267/00]		Gary H, Malc	THU
	1530z	21/12 [269/00] Out 1543z S5	(Dutch SDR)	Malc	THU
	1530z	28/12 [262/00]		Gary H	THU
5779kHz	1730z	02/11 [418/00]		HfD	THU
	1730z	08/11 [411/00] Good		RNGB	WED
	0315z	23/11 [251/00]		HfD	THU
	1730z	07/12 [415/00] Out 1733z S6		Malc	THU
	1730z	14/12 [415/00] Out 1733z S4		Malc	THU
6304kHz	2000z	03/11 [574/00] Out 2003z S5		Malc	FRI
6849kHz	1900z	14/12 [649/00] Out 1903z S9	(Dutch SDR)	Malc	THU
7317kHz	1205z	07/11 [463/00] Out 1208z S5		Malc	TUE
	1205z	08/11 [469/00] Out 1208z S5		Malc	WED
	1205z	14/11 [469/00] Out 1208z		Ed Smith	TUE
	1205z	05/12 [465/00] Out 1208z S3		Malc, RNGB	TUE
	1205z	12/12 [466/00]		RNGB	TUE
	1205z	13/12 [469/00] Out 1208z S2		Malc	WED
	1205z	27/12 [462/00] Out 1208z S2		Malc, RNGB	WED
7377kHz	0805z	04/11 [311/00] Good		RNGB	SAT
	0805z	05/11 [311/00] Out 0808z S7		Malc	SUN
	0805z	25/11 [316/00] Out 0808z S7		Malc	SAT
	0805z	03/12 [313/00] Out 0808z S9		Malc	SUN
	0805z	09/12 [319/00] Out 0808z S5		Malc	SAT
	0805z	10/12 [313/00] Out 0808z S3		Malc	SUN
	0805z	16/12 [311/00] Out 0808z S6		Malc	SAT
	0805z	23/12 [315/00] Out 0808z S3		Malc	SAT
7840kHz	0645z	02/11 [517/00] Out 0648z		Ed Smith	THU
7984kHz	0820z	06/11 [430/00] Out 0823z S3		Malc, RNGB	MON
	0820z	09/11 [435/00] Out 0823z S5		Malc	THU
	0820z	27/11 [431/00] Out 0823z S5		Malc	MON
	0820z	11/12 [438/00] Out 0823z S3		Malc	MON
	0820z	14/12 [436/00] Out 0823z S4		Malc	THU
	0820z	21/12 [438/00] Good		RNGB	THU
	0800z	28/12 [438/00] Out 0823z S3		Malc	THU
8180kHz	0930z	01/11 [278/00] Out 0933z	SDR Enschede	Ed Smith, RNGB	WED
	0930z	02/11 [276/00] Out 0933z S5		Malc, RNGB	THU
	0930z	08/11 [270/00] Out 0933z S8		Malc	WED
	0930z	09/11 [279/00] Out 0933z S2		Malc	THU
	0930z	29/11 [273/00] Out 0933z S3		Malc	WED
	0930z	30/11 [270/00] Out 0933z S2		Malc	THU
	0930z	06/12 [270/00] Out 0933z S2		Malc	WED
	0930z	07/12 [271/00] Out 0933z S2		Malc, RNGB	THU
	0930z	20/12 [278/00] Out 0933z S5		Malc	WED

8180kHz	0930z	21/12 [277/00] Out 0933z S2		Malc	THU
	0930z	27/12 [273/00] Out 0933z S3		Malc	WED
	0930z	28/12 [279/00] Out 0933z S4		Malc	THU
8545kHz	1730z	04/11 [406/00] Out 1733z S3		Malc, RNGB	SAT
	1730z	29/11 [400/00] Out 1733z S3		Malc	WED
	1730z	02/12 [409/00] Out 1733z S3		Malc	SAT
	1730z	06/12 [403/00] Out 1733z S3		Malc	WED
	1730z	09/12 [403/00] Out 1733z S2		Malc	SAT
	1730z	27/12 [403/00] Out 1733z S4		Malc	WED
	1730z	30/12 [406/00] Out 1733z S7		Malc	SAT
8680kHz	1300z	02/11 [581/00] Out 1303z S6		Malc, Ed Smith	THU
	1300z	30/11 [586/00] Out 1303z S6		Malc	THU
	1300z	07/12 [588/00] Out 1303z S3		Malc	THU
	1300z	21/12 [563/00] Out 1303z S5		Malc	THU
	1300z	28/12 [581/00] Good		RNGB	THU
8800kHz	1000z	28/11 [305/00] Out 1003z S3		Malc	TUE
	1000z	01/12 [302/00] Out 1003z S4		Malc	FRI
	1000z	05/12 [308/00] Out 1003z S3		Malc , Gert	TUE
	1000z	08/12 [300/00] Out 1003z S5		Malc	FRI
	1000z	12/12 [300/00]		Gert	TUE
	1000z	15/12 [305/00] Out 1003z S5		Malc, RNGB	FRI
	1000z	29/12 [300/00] Out 1003z S7		Malc	FRI
9130kHz	0710z	14/11 [631/00] Out 0713z		Ed Smith	TUE
	0710z	28/11 [634/00] Out 0713z S5		Malc	TUE
	0710z	12/12 [634/00] Out 0713z S4		Malc	TUE
9200kHz	0600z	03/11 [182/00] Out 0610z	SDR Enschede	Ed Smith	FRI
9443kHz	1705z	08/11 [392/00] Out 1708z S2		Malc	WED
	1705z	29/11 [392/00] Out 1708z S2		Malc	WED
	1705z	02/12 [392/00] Out 1708z S3		Malc	SAT
	1705z	06/12 [390/00] Out 1708z S3		Malc	WED
	1705z	09/12 [393/00] Out 1708z S2		Malc	SAT
	1705z	13/12 [390/00] Out 1708z S2		Malc	WED
	1705z	16/12 [392/00] Out 1708z S2		Malc	SAT
	1705z	27/12 [392/00] Out 1708z S5		Malc	WED
	1705z	30/12 [393/00] Out 1708z S5		Malc	SAT
9446kHz	0900z	01/11 [538/00] Out 0903z	SDR Enschede	Ed Smith, RNGB	WED
	0900z	06/11 [538/00] Out 0903z S3		Malc, RNGB	MON
	0900z	08/11 [537/00] Out 0903z S3		Malc, RNGB	WED
	0900z	27/11 [533/00] Out 0903z S5		Malc	MON
	0900z	29/11 [534/00] Out 0903z S3		Malc	WED
	0900z	04/12 [536/00] Out 0903z S3		Malc , RNGB	MON
	0900z	06/12 [534/00] Out 0903z S2		Malc , RNGB	WED
	0900z	11/12 [533/00] Out 0903z S6		Malc	MON
	0900z	13/12 [535/00] Out 0903z S2		Malc, RNGB	WED
	0900z	27/12 [536/00] Out 0903z S3		Malc	WED
10213kHz	0745z	06/11 [269/00] Out 0748z S9		Malc	MON
	0745z	13/11 [266/00] Good		RNGB	MON
	0745z	27/11 [261/00] Out 0748z S9		Malc	MON
	0745z	11/12 [260/00] Out 0748z S9		Malc	MON
	0745z	18/12 [268/00] Good		RNGB	MON
10448kHz	1625z	05/11 [972/00] Out 1628z S5		Malc	SUN
	1625z	08/11 [970/00] Out 1628z S2		Malc	WED
	1625z	26/11 [975/00] Out 1628z S2	(Dutch SDR)	Malc	SUN
	1625z	29/11 [970/00] Out 1628z S2		Malc	WED
	1625z	03/12 [972/00] Out 1628z S2		Malc	SUN
	1625z	06/12 [970/00]		Gary H	WED
	1625z	10/12 [972/00] Out 1628z S5		Malc	SUN
	1625z	20/12 [975/00] Out 1628z S2	(Dutch SDR)	Malc	WED
	1625z	27/12 [970/00] Out 1628z S3		Malc	WED
	1625z	31/12 [978/00] Out 1628z S3		Malc	SUN

10487kHz	1910z	01/12 [616/00] Out 1913z S5		Malc	FRI
	1910z	08/12 [614/00] Out 1913z S3		Malc	FRI
	1910z	10/12 [617/00] Out 1913z S4		Malc	SUN
	1910z	22/12 [616/00] Out 1913z S2		Malc	FRI
11104kHz	0845z	02/11 [155/00] Out 0848z	SDR Enschede	Ed Smith	THU
	0845z	07/11 [152/00] Good		RNGB	TUE
	0845z	09/11 [154/00] Out 0848z S2		Malc	THU
	0845z	05/12 [156/00]		Gert	TUE
	0845z	28/11 [154/00] Out 0848z S4		Malc	TUE
	0845z	30/11 [152/00] Out 0848z S5		Malc	THU
	0845z	05/12 [156/00] Out 0848z S6		Malc	TUE
	0845z	07/12 [151/00] Out 0848z S6		Malc	THU
	0845z	12/12 [156/00]		Gert	TUE
	0845z	14/12 [152/00] Out 0848z S5		Malc, RNGB	THU
	0845z	28/12 [159/00] Out 0848z S5		Malc	THU
11107kHz	2005z	04/11 [366/00] Out 2008z S2		Malc	SAT
	2005z	02/12 [366/00] Out 2008z S2	(Dutch SDR)	Malc	SAT
	2005z	09/12 [360/00] Out 2008z S2	(Dutch SDR)	Malc	SAT
	2005z	10/12 [360/00] Out 2008z S2		Malc	SUN
	2005z	23/12 [365/00] Out 2008z S2	Weak	RNGB, Malc	SAT
11493kHz	1645z	07/11 [333/00]		RNGB	TUE
	1645z	09/11 [333/00] Out 1648z S2		Malc	THU
	1645z	30/11 [331/00] Out 1648z S1		Malc	THU
12067kHz	1925z	02/11 [558/00] Out 1928z S2	(Dutch SDR)	Malc	THU
	1925z	09/11 [550/00] Out 1928z S2	(Dutch SDR)	Malc	THU
	1925z	28/11 [558/00] Out 1928z S1	(Dutch SDR)	Malc	TUE
	1925z	28/12 [552/001] Out 1928z S2	(Dutch SDR)	Malc	THU
12153kHz	1045z	28/11 [571/00] Out 1048z S4		Malc	TUE
	1045z	12/12 [577/00]		Gert	TUE
	1045z	19/12 [570/001] Out 048z S5		Malc, RNGB	TUE
12202kHz	0820z	07/11 [131/00] Fair		RNGB	TUE
	0820z	08/11 [438/00] Out 0823z S5		Malc	WED
	0820z	28/11 [136/000] Out 823z S5		Malc	TUE
	0820z	29/11 [130/00] Out 0823z S2		Malc	WED
	0820z	05/12 [135/00] Out 0823z S2		Malc, RNGB	TUE
	0820z	06/12 [130/00] Out 0823z S3		Malc	WED
	0820z	12/12 [136/00] Out 0823z S9		Malc	TUE
	0820z	13/12 [136/00] Out 0823z S5		Malc	WED
	0820z	27/12 [131/00] Out 0823z S2		Malc	WED
14666kHz	1345z	04/11 [914/00] Out 1348z S9		Malc	SAT
	1345z	07/11 [912/00] Out 1348z S9+10		Malc	TUE
	1345z	11/11 [917/00] Out 1348z S2		Malc	SAT
	1345z	25/11 [918/40] Out 1348z S2		Malc	SAT
	1345z	28/11 [917/00] Out 1348z S8		Malc	TUE
	1345z	02/12 [919/00] Out 1348z S6		Malc	SAT
	1345z	05/12 [918/00] Out 1348z S3		Malc	TUE
	1345z	09/12 [914/00] Out 1348z S3	(Dutch SDR)	Malc	SAT
	1345z	30/12 [911/00] Out 1348z S3		Malc	SAT
16335kHz	1650z	03/11 [925/00] Out 1653z S2	(Dutch SDR)	Malc	FRI
	1650z	26/11 [917/00] Out 1653z S2 QSB1	(Dutch SDR)	Malc	SUN
	1650z	01/12 [921/00] Out 1653z S3		Malc	FRI
	1650z	08/12 [921/00] Out 1653z S4		Malc	FRI
	1650z	10/12 [927/00] Out 1653z S7	(Dutch SDR)	Malc	SUN
	1650z	22/12 [924/00] Out 1653z S2	(Dutch SDR)	Malc	FRI
17378kHz	0745z	01/11 [349/00] Out 0748z	KiwiSDR Italy	Ed Smith	WED
	0745z	15/11 [342/00] Out 0748z		Ed Smith	WED
	0745z	29/11 [343/00] Out 0748z S1	(Dutch SDR)	Malc	WED
	0745z	01/12 [349/00] Out 0748z S3		Malc	FRI
	0745z	06/12 [347/00] Out 0748z S2	(Dutch SDR)	Malc	WED
	0745z	13/12 [349/00] Out 0748z S2	(Dutch SDR)	Malc	WED
	0745z	27/12 [340/00] Out 0748z S2		Malc	WED
20167kHz	1225z	03/11 [528/00]		HfD	FRI

E11a log Nov/Dec

4505kHz	0710z	11/11 [495/38 52268 61567.....83535 44363] Out 0720z	Ed Smith	SAT
5231kHz	0948z	14/11 I.P. [121/20 52458 97456 85401 25485] Out 0954z SDR Silec, Poland	Ed Smith	TUE
5409kHz	1530z	07/12 [264/37 96931.....77143] Out 1540z S9+10	Malc	THU
5779kHz	1730z	28/12 [410/40 52024.....77061] Out 1742z S8	Malc	THU
6849kHz	1900z	28/12 [643/37 36789.....41075] Out 1911z S2	Malc	THU
7317kHz	1205z	28/11 [462/33 44035.....64339] Out 1215z S2	Malc	TUE
	1205z	20/12 [464/33 51342.....20279] Out 1215z S2	Malc	WED
7377kHz	0805z	11/11 [316/35 29573.....37604] Out 0816z S5	Malc	SAT
	0805z	30/12 [316/32 33539 88797 53035 61619 08689 94743 75118.....35396 72833] Out 0814z S3	RNGB, Malc	SAT
7984kHz	0820z	04/12 [434/32 50920 00583 53324 67704 19728 63570 19609.....79091 79598]	Gert, RNGB	MON
	0820z	07/12 [434/32 50920.....etc] Repeat of Monday	Malc	THU
8180kHz	0930z	13/12 [276/35 51008.....39954] Out 0940z S6 (Dutch SDR)	Malc	WED
	0930z	14/12 [276/35 84720.....39954] Out 0933z S2	Malc	THU
8545kHz	1730z	16/12 [400/38 35261.....84212] Out 1741z S2	Malc	SAT
8680kHz	1300z	09/11 [589/38 53397 60191 52074 82414 00707 25354 19459.....74935 92993] Out 1312z S3	Malc	THU
	1300z	11/11 [589/38 53397.....etc] Repeat of Thursday	Ed Smith, RNGB	SAT
	1300z	14/12 [589/39 02119.....95903] Out 1311z S2	Malc	THU
8800kHz	1000z	10/11 [300/25 33797.....90689] Out 1008z S4	Malc	FRI
	1000z	19/12 [307/21 93706.....56746] Out 1007z S5 (Dutch SDR)	Malc	TUE
	1000z	22/12 [307/21 93706.....etc] Repeat of Tuesday	Malc	FRI
9130kHz	0710z	07/11 [639/34 50968 40273 68209 32599 74767 21296 83613 45896.....94913 14762] Out 0720z	Ed Smith, RNGB	TUE
	0710z	05/12 [637/32 74645 96415 31673 59894 62173 09503 35771.....91625 81288] Out 0720z S3	RNGB, Malc	TUE
9200kHz	0600z	10/11 [185/21 05373 15186 86481 76760 65205 07766 98846 38870.....90125 55717] Out 0607z	Ed Smith	FRI
9443kHz	1705z	04/11 [392/34 89785 21365 25785 69792 22892 64302 12553.....57677 09901] Out 1715z S3	Ed Smith, Malc	SAT
	1705z	23/12 [396/33 04446 23279 30306 85624 34320 81801 88104.....50796 89633] Out 1715z S5	RNGB, Malc	SAT
9446kHz	0900z	20/12 [534/37 65827.....69654] Out 0910z S2	Malc	WED
10213kHz	0745z	04/12 [264/37 96931.....77143] Out 0755z S9	Malc	MON
10448kHz	1625z	13/12 [974/33 11220.....98249] Out 1635z S4	Malc	WED
11104kHz	0845z	14/11 [155/21 53488 87236 29595 33796 64563 19464 21861.....62141 52883]	RNGB	TUE
	0845z	19/12 [159/23 64463 40817 22492 85445 34375 28276 59976.....37984 41227] Out 0853z S4	RNGB, Malc	TUE
	0845z	21/12 [159/23 64463.....etc] Repeat of Tuesday	Malc	THU
11107kHz	2005z	11/11 [365/31.....] too weak to coy msg. Out 2015z S1 (Dutch SDR)	Malc	SAT
11450kHz	0640z	15/11 [944/36 02552 02779 52230 69707 12919 92769 79431 83773.....77296 60007] Out 0650z	Ed Smith	WED
11493kHz	1645z	12/12 [330/37 84720.....98669] Out 1655z S3 (Dutch SDR)	Malc	TUE
	1645z	14/12 [330/37 84720.....etc] Repeat of Tuesday	Malc	THU
12153kHz	1045z	05/12 [570/36 35807 54146 59409 95452 94941 48817 17414.....84977] Out 1055z S4	RNGB, Malc	TUE
12202kHz	0820z	19/12 [131/32 01253 14342 08932 60052 63409 78978 89700.....81688 59688] Out 0830z S4	RNGB, Malc	TUE
14666kHz	1345z	12/12 [919/36 99080 34837 75115 95885 17635 27526 90738 56321.....31926 71161]	Gert, Gary H	TUE
	1345z	16/12 [919/36 99080.....71161] 1355z S2 (Dutch SDR}	Malc	SAT
16335kHz	1650z	31/12 [925/39 81317.....23515] Out 1701z S5	Malc	SUN

E17z

Additional transmissions

10240kHz1534z	07/11[809 809 13 13 274 274 274 ... 809 809 13 13 98539 ... 839 839 13 13 274]	HFD	TUE
10240kHz1520z	08/11[374 891 31 10475 ... 38733 374 x 3 2 28011 ... 61823 891 35? 00000] (weak to read at the end of TX)	M8	WED

November 2017

Thursday

0800z	11170kHz	0800z	9820kHz	
02/11	674 819 5 36184 36194 37650 43773 46793 819 5 00000			Weak
09/11	674 819 5 36184 36194 37650 43773 46793 819 5 00000			Weak
16/11	674 913 5 89056 ... 29043 913 5 00000			
30/11	674 00000			Weak

December 2017

07/12	674 890 5 11394 30307 31450 38153 39650 890 5 00000	Weak
14/12	674 890 5 11394 30307 31450 38153 39650 890 5 00000	Weak
28/12	674 281 5 51336 41878 48807 29239 33118 281 5 00000	Weak

E25

6140kHz0815z	06/11	DrMHz	MON
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0815z - 0816z
lots of failures in msg
0819z - 0821zmsg was repeated but EOT failed
014 014 ...
MSG MSG MSG
8255 1290 5507 2161 7915 2666 2375 1290 5080
REBEAT REBEAT
8255 1290 5507 2161 7915 2666 2375 1290 5080
EOM EOT Courtesy DrMHz

6140kHz0815z	08/11	DrMHz	WED
1153z - windows sound music 1159z - end of tx Courtesy DrMHz			

6140kHz0817z	15/11 USB (with AM carrier)	DrMHz	WED
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Male operator. Live.
169 169 169
MSG MSG MSG
6040 6120 4564 4072 8805 0956 8274
REBEAT REBEAT REBEAT
6040 6120 45 (tx off)

6140kHz0847z	15/11 USB (with AM carrier)	DrMHz	WED
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Male operator. Live.
169 169 169
MSG MSG MSG
6040 6120 4564 4072 8805 0956 8274
REBEAT REBEAT REBEAT
6040 6120 4564 4072 8805 0956 8274
EOM EOT

6140kHz0815z	16/11 E25 USB (with AM carrier) Female operator. Live; message (with lots of attempts and a "typo"):	DrMHz	THU
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169 169 169
MSG MSG MSG
6040 6120 4564 4072 8805 0946 8274
REBEAT REBEAT REBEAT
604- ---- ---4 4072 8805 0956 8274
EOM EOT

NOTES: Note it is same message as yesterday.

First row of numbers, operator made a mistake saying "0946" when it should be "0956".
Previously, there were 2 attempts with cuts. One at 0811z by a male voice. Second one at 0813z by female voice.

6140kHz0819z	05/12 AM carrier (usb modulated)	DrMHz	TUE
6140kHz0831z	05/12 AM carrier (usb modulated)		

6140kHz 0819z
Male operator. Live
333 333 333 333 333
(tx off)
_____ 7580 3307 6559 0176 0789 9738 7580
REBEAT REBEAT REBEAT
3080 7580 3307 6559 1076 0789 9738 7580
EOM EOT
NOTE: 1st group of 1st tx is missing; 5th group of 1st tx was 0176; 5th group of rpt is 1076

6140kHz 0831z
Male operator. Live (different operator???)
333 333 333 333 333
308_ 7580 3307 655_ _____ 2789 9738 7580
(tx off)
3080 7580 3307 6559 1076 0789 9738 7580
EOM EOT

NOTE: background voice in the beginning of tx (maybe previous operator); 1st group of 1st tx last number is missing; 4th group of 1st tx last number is missing; 5th group of 1st tx is missing; 6th group of 1st tx is 2789; no rpt because tx went off; 6th group of rpt is 0789

I believe that correct and complete MSG should be:

333
3080 7580 3307 6559 1076 0789 9738 7580
REBEAT REBEAT REBEAT
3080 7580 3307 6559 1076 0789 9738 7580
EOM EOT
All courtesy dmhz

6140kHz0930z	05/12 AM carrier (usb modulated)	DrMHz	TUE
Male operator. Live.			

333
3080 7580 3307 6559 1076 0789 9738 7580
REBEAT REBEAT REBEAT
3080 7580 3307 6559 1076 0789 9738 7580
EOM EOT
Courtesy dmhz

6140kHz0930z	06/12 AM carrier (usb modulated)	DrMHz	WED
Male operator. Live			

333
3080 7580 3307 6559 1076 0789 9738 7580
REBEAT REBEAT REBEAT
3080 7580 3307 6559 1076 0789 9738 7580
EOM EOT

Notes: At 0902z and 0905z there were two attempts of what seems to me a new operator being trained to read the messages. A voice can be heard in the background saying which numbers must be spoken. Weird!!!!

G06

From PoSW

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

9-Nov-17, 4519 kHz, call "271", DK/GC "149 149 52 52", the message which has been transmitted many times since late October of last year. Weak signal, occasionally up to S7

but often sinking into the local QRM, quite fierce in this part of the band.

Started about ten seconds after the half-hour, reasonable time-keeping for these Thursday and Friday schedules.

23-Nov-17, 4519 kHz, "271", DK/GC "289 289 54 54", looks like the same message as on 26-October and 8-June.

14-Dec-17, 4519 kHz, "271", DK/GC "847 847 58 58", same as heard on Friday 10-November.

Friday 1930 UTC Schedule Following Second + Fourth Thursdays:-

10-Nov-17, 4792 kHz, started just a few seconds before the half-hour, call "436", DK/GC "847 847 58 58", not the usual "149 52" message, then. Signal up and down, sinking into the local QRM at times.

24-Nov-17, 4792 kHz, "436", DK/GC "134 134 57 57".

First + Second Mondays in the Month 1700 + 1800 UTC Schedule:-

6-Nov-17:- 1802 UTC, found in progress, 4559 kHz, “563 563 563 00000”, stopped just after 1804z which suggests it must have started on the hour. Unable to find the first sending at 1700z.

13-Nov-17:- 1703 UTC, just after, 3641 kHz, “563 563 563 00000”, voice did not stop until after 1707z which indicates a late start; S8 carrier had been noted on 3641 just before the hour, when no voice was heard after 1700 it was assumed that G06 was elsewhere so furious tuning around ensued, was in progress when tuned to that frequency again after 1703.

1800 UTC, 4559 kHz, no late start here, second sending in progress when tuned in a few seconds after the hour, voice stopped well before 1804z.

Others' Logs:

Monday

November/December 2017

0800z 5320kHz

06/11 329 00000 Weak

18/12 329 00000 Weak

1700z 3645kHz 1800z 4559kHz

06/11 563 00000 [1800z only] Fair

Monday

0759z 5320kHz

04/12 329 00000 Fair

1659z 3641kHz 1759z 4559kHz

04/12 563 00000 Strong

11/12 563 00000 Weak

Wednesday

November 2017

4570kHz1200z 15/11 563 00000 AB WED

4570kHz1211z 15/11 111 00000 AB WED

Thursday

November 2017

1300z 4460kHz

09/11 329 00000

December 2017

07/12 329 00000 Fair

1830z 4519kHz

09/11 271 149 52 12265 ... 96732 149 52 00000 Weak

271 149 52
12265 10965 47839 38654 84677 93453 72217 84393 04673 97564
01824 75643 84221 95647 92112 94543 76577 43435 47322 84232
95674 87344 57438 45763 49325 57438 92190 96785 21244 05674
01765 76354 83645 21234 97564 82133 07564 83234 75312 71211
05674 65374 67321 94884 23483 82521 41212 57333 85331 53234
05124 95732
149 52 00000

Windows shut down sound Courtesy Ary

14/12 271 847 58 67391 ... 69529 847 58 00000 Fair

28/12 271 149 52 12265 ... 95732 149 52 00000 Strong

Friday

November 2017

1930z 4792kHz

24/11 436 134 57 69834 ... 84732 134 57 00000 Weak

S06

Frequencies moving lower in November and December as we move into the dark days of winter.

Commencing with RNGB's logs we then move on to PoSW's logs and analysis:

S06 log November 2017

Daily Mon- Fri 0400z 15721kHz

No reports

Thursdays (Repeats following day) 0830z 19875kHz 0930z 16067kHz
02/11 '842' 596 47 15611 15135 96348 25593 38691 18575 14976 32006 67906 04210 09991 86518 63720 29902 23429 37849 3-472 66095 51221 59288
98758 51434 15240 77650 43925 54144 63166 41379 40366 17958 63385 63757 86305 50084 87081 02147 50758 99608 94731 59206
23353 65385 69182 17011 28704 16660 62492 596 47 00000

09/11 '842' 701 48 11925 73396 49135 87062 84412 92466 77937 49797 49030 56884 39792 23421 76525 29452 18994 55845 83673 55047 69991 44578
89344 5742 06708 52091 35132 72668 05641 90044 00213 69080 14912 33295 05135 58043 86461 49625 04220 63187 73577 56136
11263 69970 60942 38231 38224 37877 19391 92144 701 48 00000

Fridays (1st & 3rd) 2000z 7607khz 2100z 5412kHz (frequencies may vary slightly)

03/11 '914' 00000

Saturdays (1st & 3rd) 2000z 4012kHz 2100z 3408kHz (frequencies may vary slightly)

04/11 '913' 00000

Other transmissions

1500z 13397kHz 1600z 9194kHz
07/11 '387' 945 61 11280 65427 80071 18062 83066 64327 81713 98611 30610 41541 42897 68281 38633 84619 96076 37854 78609 13713 30843 74503
57472 93818 98925 45533 30074 65884 13422 33312 67618 57681 46969 44845 99232 60420 58515 64393 68865 82008 03395 22617
74714 12916 06399 80649 83351 65574 02512 52548 35751 73248 75017 14572 87393 59312 45653 74699 49644 12884 96503 00854
24580 00000] 1614z Malc, Ed Smith

S06c

No reports

S06s November log:

Monday

6th/13th 0830/0840z 8057/8530 '371' 809 5 47665 94092 48521 63888 92060
20th/27th '371' 965 8 13041 34000 88632 77642 01433 42486 44360 46296
6th/13th 0900/0910z 14675/12830 '872' 531 6 79302 53516 25616 56069 96813 14199
20th/27th '872' 539 6 44622 28153 00266 81864 64865 74245
6th/13th 1200/1210z 8420/10635 '831' 290 5 50128 99477 83574 48871 34694
20th/27th '831' No reports

Tuesday

7th/14th 0600/0610z 16145/14240 '438' 971 5 96632 52537 53317 06675 41736
21st/28th '438' No reports
7th/14th 0700/0715z 5250/6320 '374' 206 5 41412 55678 09775 86415 25910
21st/28th '374' 521 6 66771 81593 87937 40155 18617 70235
7th/14th 0730/0740z 7410/11532 '427' 801 5 63427 53712 94042 36241 95647
21st/28th '427' 968 5 31403 38153 39650 84498 30419
7th/14th 0800/0810z 11945/13195 '352' 819 6 95626 62331 26342 95055 63425 85637
21st/28th '352' 916 7 37303 88934 34302 34167 30033 33493 94372
7th/13th 1000/1010z 6440/5660 '893' 507 6 85518 83939 48340 30054 40909 39394
21st/28th '893' 476 5 87240 34625 38363 33136 36133
7th/14th 1100/1110z 5035/5975 '754' 263 8 44475 30322 36034 45445 44008 38453 48324 33885
21st/28th '754' 981 6 92971 30490 46481 33984 37393 47844
7th/14th 1500/1510z 6845/9170 '537' 219 6 33699 39998 30667 35947 83964 40774
21st/28th '537' 984 6 48318 30605 43003 83659 86760 83461

Wednesday

1st/8th 0730/0740z 11535/11830 '745' 283 6 44008 38453 38324 33885 31830 34645
15th/22nd '745' 218 6 94527 53434 74527 92317 84536 05605
1st/8th 0820/0830z 8417/9262 '471' 580 6 37142 32842 30003 98328 33055 31123
15th/22nd '471' 503 6 53226 93526 84526 93423 02304 51242
1st/8th 0830/0840z 7062/10532 '464' 821 5 36343 33365 97541 84517 48694
15th/22nd '464' 281 5 45326 89657 52317 69874 25347
1st/8th 1000/1010z 12365/14280 '729' 430 5 32030 34002 36870 39553 35530
15th/22nd '729' 836 5 05637 62316 73425 83427 83523

Thursday

2nd/9th (E17z)	0800/0810z	11170/9820	'674' 819 5 36184 36194 37650 43773 46793
16th/23rd			'674' 913 5 89056 74831 90553 16811 29043
2nd/9th	0930/0940z	8812/9540	'314' 298 5 32614 41322 86067 25487 44036
16th/23rd			'314' 892 5 13900 48366 36534 32840 48436
2nd/9th	1200/1210z	11780/12570	'425' 873 6 40328 35929 47234 33940 48075 30349
16th/23rd			'425' No reports

Friday

3rd/10th	0900/0910z	5765/6315	'624' 918 5 33699 39998 30667 35947 83964
17th/24th			'624' 981 5 30593 34756 34315 32217 47490
3rd/10th	0930/0940z	11780/12570	'516' 908 7 46062 68672 97478 34685 30485 96632 52537
17th/24th			'516' 428 7 41347 85557 43311 88222 47840 14987 37986

Saturday

4th	0800/0810z	8680/8260	'254' 917 6 11647 67208 18495 72852 34407 85065
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Sunday

5th/12th	0630/0640z	13470/16515	'524' 913 6 02688 58069 61732 74537 67440 79501
19th/26th			'524' No reports

S06 log December 2017

Daily Mon- Fri 0400z 15721kHz

No reports

Thursdays	(Repeats following day)	0830z	17435kHz	0930z	14380kHz
07/12	'842' 790 31 59811 39176 93757 83579 83032 85721 19987 88788 12084 09588 50236 83979 54542 88285 45177 13118 08233 75950 75563 05333 70643 94182 95170 33391 00007 81185 05247 29674 63971 78894 08897 790 31 00000				
14/12	'842' 516 32 93990 40572 20846 07710 37785 73368 94461 26611 99582 44729 92735 73271 49083 71967 21248 45687 01734 94628 64315 73422 20277 76018 61400 43413 62506 95336 38305 99688 98636 30111 79690 46708 516 32 00000				
21/12	'842' 907 33 21841 21353 37228 26171 33695 8963? 33257 05032 69927 92689 88832 61265 04367? 69736 79727? 69035 37065 333?0 63317 23698 34469? 43420 42491 28586 33577 60264 72886? 11185 90846 36230 42220 10905 89910 907 33 00000				

Fridays (1st & 3rd) 1900z 7607khz 2000z 5412kHz (frequencies may vary slightly)

01/12	'514' 00000
15/12	'514' 00000

Saturdays (1st/3rd) 2000z 4012kHz 2100z 3398kHz (frequencies may vary slightly)

02/12	'913' 00000
16/12	'913' 00000

Other transmissions

Unexpected S06 i.p. on **10755 kHz**, 06-12-2017, 1232 UTC, USB

.....47081 07361 57248 55894 53978 87740 93506 34794 160 27 00000

10755kHz	21/12	0950z
.....91099 43646 84276 17160 56540 84726 84427 93515 59586 12681 99756 07615 81684 12887 32846 75859 316 28		
'975' 841 24 64217 48628 50090 70492 43139 10552 78530 68020 63587 07602 61621 41729 18598 40163 51332 54160 59428 34969 51579 18630 46283 33488 73890 21266 841 24 00000		Ary

12164kHz	26/12	1036z
In progress. Bad modulation	55941 82452 21222 19101 18485 00621 22894 94543 02359 17202 33903 47724 14863 70931 67461 66089 57923 15689 38290 64137 99288 71561 84703 916 40 00000	Ary

S06c

15736kHz	1050z	09/12	'11115' Ended 1054z Very strong	Danix	SAT
13468kHz	1100z	09/12	'11115' Ended 1104z Very strong	Danix	SAT
13952kHz	0630z	20/12	'11216' (R4m) 0634z Very strong Via KiwiSDR Greece	Danix	WED

S06s December log:**Monday**

4th/11th	0830/0840z	8057/8530	'371' 589 6 35861 33432 89319 32494 31283 31472
18th/25th			'371' 205 6 61633 84776 74162 13534 66468 35644
4th/11th	0900/0910z	14675/12830	'872' 916 5 87380 36118 36744 37610 86587
18th/25th			'872' 594 6 79961 04322 16527 39305 17203 80333
4th/11th	1300/1310z	8420/10635	'831' 947 5 33430 94857 33764 43432 37693
18th/25th			'831' 275 6 11256 09015 85836 75483 07608 99997

Tuesday

5th/12th	0600/0610z	16145/142409	‘438’ 270 5 41347 85557 43311 43758 49485
19th/26th			‘438’ 915 6 34614 48756 91866 20315 30713 73965
5th/12th	0700/0715z	5250/6320	‘374’ 852 6 37661 30885 48702 38377 49334 85371
19th/26th			‘374’ 519 6 23375 56927 69640 76379 51606 77242
5th/12th	0730/0740z	7410/11532	‘427’ 869 5 34888 33661 37167 37671 43391
19th/26th			‘427’ 953 6 07660 58672 72400 87815 53148 07393
5th/12th	0800/0810z	11945/13195	‘352’ 987 6 34031 49980 48995 40333 43389 30419
19th/26th			‘352’ 974 6 97964 01368 81379 65520 34896 47985
7th/13th	1000/1010z	6440/5660	‘893’ 276 5 33844 33282 36533 31752 33076
19th/26th			‘893’ 452 6 30141 90966 27700 37136 51939 58809
5th/12th	1100/1110z	5035/5975	‘754’ 238 6 33699 39998 30677 35947 83964 40774
19th/26th			‘754’ 903 6 30717 73965 81301 44597 74710 39477
5th/12th	1500/1510z	6845/9170	‘537’ 294 6 40635 33180 48007 37230 36446 43475
19th/26th			‘537’ 980 6 64602 11070 31074 77930 67993 98668

Wednesday

6th/13th	0820/0830z	8417/9262	‘471’ 508 6 15038 95107 20064 04066 83072 11045
20th/27th			‘471’ 968 5 36628 32225 30878 49980 49885
6th/13th	0830/0840z	11535/11830	‘745’ 923 6 44735 15220 88148 20380 88650 23303
20th/27th			‘745’ 293 6 92971 30490 46481 33987 37393 48944
6th/13th	0830/0840z	5035/5975	‘464’ 219 5 03591 29834 16093 57024 30011
20th/27th			‘464’ 831 5 37016 34984 44220 84912 41866

PoSW’s logs and analysis

S06

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

3-Nov-17:- 2000 UTC, 7607 kHz, “514 514 514 00000”, peaking S9 with deep QSB.

Carrier with tone was up on 7607 when checked at 1947z with a single spoken “514” in Russian at 1949:40s. This frequency was used in the first months of 2017, as was the case with the second sending:-

2100 UTC, 5412 kHz, well over S9, indicating S9+ at times.

17-Nov-17:- 2000 UTC, 7607 kHz, very weak signal unreadable, tuning adjusted to give a heterodyne note with the receiver in USB mode, carrier went off shortly after 2004z which suggests, “no message”.

2100 UTC, 5412 kHz, much stronger, peaking S9, “514 514 514 00000”.

As was more or less expected, this schedule moved by one hour in December:-

1-Dec-17:- 1900 UTC, 7607 kHz, very weak signal, unreadable, carrier went off after 1904 UTC.

2000 UTC, 5412 kHz, second sending much better signal, “514 514 514 00000”, peaking S9.

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

18-Nov-17:- 2000 UTC, 4012 kHz, “913 913 913 00000”, indicating around “9” on the S-meter. As expected, using the same frequency employed in January and February of 2017.

The second sending at 2100z was expected to be on 3408 kHz, was actually “ten lower”:-

2100 UTC, 3398 kHz, weak signal under the local QRM from “domestic entertainment devices”, with their ability to generate high levels of interference from their digital circuitry and switch-mode power supplies, in nearby properties; everyone watching “Britain's Got Celebrity Dancing Chefs with X-Factor Talent”, or whatever crap goes out on mainstream TV on a Saturday night.

2-Dec-17:- 2000 UTC, 4012 kHz, “913 913 913 00000”, over S9.

2100 UTC, 3398 kHz, second sending a couple of S-points weaker.

Other S06:-

7-Nov-17, Tuesday:- 1502 UTC, 13397 kHz, a chance discovery while tuning around, S06

Man calling, “387”, DK/GC “945 945 61 61”, About S5 when tuned in, came up to S7 to S8 at times, ended 1514:30s UTC. Had a search at 1600z for a possible second sending but nothing found.

8-Nov-17, Wednesday:- 1500 UTC, 13397 kHz, a “next day repeat”, much weaker signal, only just readable. On the chance that this might show up a search had been made at 1400z in case the 1500 was the second transmission, and again another search at 1600 - but all in vain.

No sign of this one on Tuesdays 14 and 21 November.

S06s, YL Voice:-

A selection of the stronger transmission schedules from the female voice I like to think of as “Young Olga”:-

Monday 0830 + 0840 UTC Schedule, Call “371”:-

13-Nov-17:- 0830 UTC, 8057 kHz, DK/GC “809 809 5 5”, peaking S9, “47665 94092 48521 63888 92060”

0840 UTC, 8530 kHz, second sending, slightly weaker.

20-Nov-17:- 0830 UTC, 8057 kHz, DK/GC “965 965 8 8”, “13041 34000 88632 77642 01433 42486 44360 46296”, S7.

0840 UTC, 8530 kHz, slightly weaker signal.

4-Dec-17:- 0830 UTC, 8057 kHz, DK/GC “589 589 6 6”, S8 to S9, “35861 33432 89319 32494 31283 31472”.
0840 UTC, 8530 kHz, second sending, S7.

11-Dec-17:- 0830 UTC, 8057 kHz, “589 589 6 6”, and 5Fs as last Monday, signal strength S7.
0840 UTC, 8530 kHz, peaking S9.

Monday 0900 + 0910 UTC Schedule, Call “872”:-

20-Nov-17:- 0900 UTC, 14675 kHz, DK/GC “539 539 6 6”, 44622 28153 00266 81864 64865 74245”, signal strength indicating around “6”.
0910 UTC, 12830 kHz, second sending, slightly stronger.

4-Dec-17:- 0900 UTC, 14675 kHz, S4 to S5 at best, DK/GC “961 961 5 5”, “87380 36118 36744 36744 37610 86587”.
0910 UTC, 12830 kHz, weak signal, difficult copy.

Monday 1300 + 1310 UTC Schedule, Call “831”:-

6-Nov-17:- 1300 UTC, 8420 kHz, a weak signal, difficult copy, second sending much better.
1310 UTC, 10635 kHz, DK/GC “290 290 5 5”, weak at first but rapidly came up to a respectable S7, “50128 99477 83574 48871 34694”

Tuesday 0730 + 0740 UTC Schedule, Call “427”:-

7-Nov-17:- 0730 UTC, 7410 kHz, DK/GC “801 801 5 5”, “63427 53712 94042 36241 95647” indicating over S9 and unusually this was transmitted in USB carrier suppressed mode instead of the usual “with carrier”; which explains why there was no sign of the usual carrier warming up the frequency when tuned in about one minute before the half-hour.
0740 UTC, 11532 kHz, second sending, S9+ and transmitted in the usual “with carrier” mode.

14-Nov-17:- 0730 UTC, 7410 kHz, “801 801 5 5” and 5Fs as last time, S9 signal, usual “with carrier” mode.
0740 UTC, 11532 kHz, S9+, very strong signal.

12-Dec-17:- 0730 UTC, 7410 kHz, DK/GC “869 869 5 5”, peaking S9, “34888 33661 37167 37167 43391”.
0740 UTC, 11532 kHz, second sending.

Tuesday 0800 + 0810 UTC Schedule, Call “352”:-

14-Nov-17:- 0800 UTC, 11945 kHz, DK/GC “819 819 6 6”, indicating around S7, “95626 62331 26342 95055 63425 85637”.
0810 UTC, 13195 kHz, second sending, very weak signal, down in the noise.

12-Dec-17:- 0800 UTC, 11945 kHz, DK/GC “987 987 6 6”, not too strong, S5 at best, “34031 49980 48995 40333 43389 30419”.
0840 UTC, 13195 kHz, slightly stronger signal.

Wednesday 0820 + 0830 UTC Schedule, Call “471”:-

1-Nov-17:- Missed the 0820z which would have been on 8417 kHz, no doubt.
0830 UTC, 9262 kHz, DK/GC “580 580 6 6”, peaking S8, “37142 32842 30003 98328 33055 31123”.

8-Nov-17:- 0820 UTC, 8417 kHz, “580 580 6 6”, 5Fs as on 1-Nov, S9 signal.
0830 UTC, 9262 kHz, over S9.

15-Nov-17:- 0820 UTC, 8417 kHz, some major malfunctioning observed this morning, DK/GC “503 503 6 6”, message was cut short on the last 5F group, “53226 93526 84526 93423 02304 51.....” voice stopped at this point, carrier stayed on, gave up on it after a couple of minutes.
0830 UTC, 9262 kHz, tuned in at approx 0833z after checking out the first sending of another S06s on 11535, weak signal, appeared to be carrier only, voice heard calling “471” when checked again a bit before 0835z.

22-Nov-17:- Very weak signals on both transmissions this morning, both unreadable.

29-Nov-17:- 0820 UTC, 8417 kHz, “471 471 471 00000”, “the end of the month - no message” routine, seems to be standard procedure when there are five of any particular day in the month so why bother wasting time on a transmission at all? Weak signal.
0829 UTC, just after, 9262 kHz, the second sending of a “no message” starts about one minute early, a bit of impatience on someone's part, perhaps?

13-Dec-17:- 0820 UTC, 8417 kHz, more problems this morning, “471” call stopped after 0821 UTC, plain carrier, tone heard around 0822:30s, voice got under way at approx 0823:30s. DK/GC “508 508 6 6”, “15038 15107 20064 04066 83072 11045”, ended just before 0828 UTC.
0832 UTC, 9262 kHz, running late, weak signal.

Wednesday 0830 UTC + 0840 UTC Schedule, Call “745”:-

1-Nov-17:- Nothing found at 0830z, which would have been on at the same time as the second sending of the “471” on 9262 kHz; tuning around on a second receiver at 0830z proved fruitless. No problem with what is assumed to be the second sending:-
0840 UTC, 11830 kHz, S9 signal, DK/GC “283 283 6 6”, “44008 38453 38324 33885 31830 34645”.

8-Nov-17:- 0840 UTC, 11830 kHz, “283 283 6 6” and 5Fs as on 1-Nov. Nothing found at 0830z.

Update:- Perusal of the Prediction List in En103, hot off the presses, suggests 11535 for the 0830z sending.

15-Nov-17:- 0830 UTC, 11535 kHz, on at the same time as the second sending of “471” on 9262 kHz. More trouble here, strong signal, over S9 but voice failed around 0832z; carrier stayed on, voice resumed before 0835z, DK/GC at 0836:30s approx, “218 218 6 6”, 5Fs “94527 53434 74527 92317 84536 05605”. Carrier went off shortly before 0840 UTC.
0842 UTC, just after, 11830 kHz, more tribulations with the second sending, S9+, very strong signal, voice failed 0843:50s UTC approx, plain carrier for some time, audio tone for a couple of seconds then back into “745” call and proceeded as normal.

22-Nov-17:- 0830 UTC, 11535 kHz, “218 218 6 6”, same 5Fs as last week as expected, no problems except that the voice started about twenty seconds or so past the hour, a little later than is usual, perhaps. S9 with QSB.
0840 UTC, 11830 kHz, indicating over S9 for most of the transmission.

29-Nov-17:- 0830 UTC, 11535 kHz, “745 745 745 0000”, the “no message” routine expected on the fifth Wednesday in November. Over S9.
0839 UTC, 11830 kHz, second sending starting about a minute early, over S9.

13-Dec-17:- 0830 UTC, 11535 kHz, DK/GC “923 923 6 6”, over S9, “44735 15220 88148 20380 88650 23303”.
0840 UTC, 11830 kHz, also over S9.

Wednesday 1000 + 1010 UTC Schedule, Call “729”:-

1-Nov-17:- 1000 UTC, 12365 kHz, DK/GC “430 430 5 5”, S9+, very strong signal, “32030 34002 36870 39553 35530”.
1010 UTC, 14280 kHz, second sending, S9 signal inside to 20 metre amateur band.

8-Nov-17:- 1000 UTC, 12365 kHz, DK/GC “430 430 5 5”, 5Fs same as last time but with a much weaker signal, S6 to S7.
1010 UTC, 14280 kHz, weak signal.

15-Nov-17:- 1000 UTC, 12365 kHz, DK/GC “836 836 5 5”, “05636 62316 73425 83427 83523”, peaking around “8” on the S-meter.
1010 UTC, 14280 kHz, second sending, weak signal, difficult copy, appeared to start a bit later than the usual ten or fifteen seconds, voice not heard until 1010:25s UTC.

22-Nov-17:- 1000 UTC, 12365 kHz, “836 836 5 5” and 5Fs as on 15-Nov, peaking S8.
1010 UTC, 14,280 kHz, S6 at first, became weaker towards the end of the transmission.

13-Dec-17:- 1000 UTC, 12365 kHz, DK/GC 405 405 6 6 “40228 25828 47234 22930 48754 20239”, S7 with QSB.
1010 UTC, 14280 kHz, S5 to S6.

Friday 0930 + 0940 UTC Schedule, Call “516”:-

3-Nov-17:- 0930 UTC, 11780 kHz, DK/GC “908 908 7 7”, “46062 68672 97478 39685 30485 96632 52537”, S9+ signal.
0940 UTC, 12570 kHz, second sending, also S9+.

17-Nov-17:- 0930 UTC, 11780 kHz, DK/GC “428 428 7 7”, S9+, very strong signal,
DK/GC “428 428 7 7”, “41347 85557 43311 88222 47840 14987 37986”.
0940 UTC, 12570 kHz, second sending, over S9.

24-Nov-17:- 0930 UTC, 11780 kHz, “428 428 7 7” and 5Fs as on 17-Nov, over S9.
0940 UTC, 12570 kHz, weaker signal, S7.

1-Dec-17:- 0930 UTC, 11780 kHz, DK/GC “293 293 7 7”, “15690 85544 34558 49232 43247 33666 59621”, over S9.
0940 UTC, 12570 kHz, also over S9.

15-Dec-17:- 0930 UTC, 11780 kHz, DK/GC “489 489 7 7”, over S9, “67949 06475 40400 83726 95993 63070 00930”.
0940 UTC, 12570 kHz, S9+, very strong signal.

First Saturday in the Month 0800 + 0810 UTC Schedule, Call “254”:-

4-Nov-17:- 0800 UTC, 8680 kHz, DK/GC “917 917 6 6”, “11647 67208 18495 72852 34407 85065”, peaking S9.
0810 UTC, 8260 kHz, second sending, slightly weaker, indication 7 to 8 on the S-meter.

2-Dec-17:- 0800 UTC, 8680 kHz, DK/GC “973 973 6 6”, “54990 38921 78229 02025 87291 33661”, S6 with QSB.
0810 UTC, 8260 kHz, second sending indicating an S-point higher.

S11a log Nov/Dec

4828kHz	0455z	03/11 [326/00] KOHEI 0458z	SDR Enschede	Ed Smith	FRI
	0455z	07/11 [321/39 92744 69307 66826 94656 71960 06423 54176.....94477 81532]	KOHEI 0507z	Ed Smith	TUE
5082kHz	2050z	31/12[487/35 14522 23786 23229 11062 02721 13453 07584.....9021 70893]	2102z Fair	Danix	SUN
5815kHz	1955z	03/11 [371/00] Konyetz 1958z	S9+10	Malc	FRI
	1955z	08/11 [377/31 90541.....42072]	Konyetz 2005z	Malc	WED
	1955z	24/11 [370/00] Konyetz 1958z	S2	Malc	FRI
	1955z	29/11 [379/00] Konyetz 1958z	S9	Malc	WED
	1955z	06/12 [373/00] Konyetz 1958z	S3	Malc	WED
	1955z	08/12 [377/001] Konyetz 958z	S9	Malc	FRI
	1955z	15/12 [370/34 68733.....48837]	Konyetz 2006z	Malc	FRI
	1955z	20/12 [371/00] Strong		RNGB	WED
	1955z	22/12 [378/00] Konuyetz 1958z	S9	Malc	FRI

7504kHz	0915z	03/11 [484/00] Konyetz 0918z S4	Malc	FRI
	0915z	07/11 [481/30 78629 40681 22841 21420 46979 89508 33489 33145.....87002 39492] Fair	RNGB	TUE
	0915z	10/11 [481/30 78629.....39592] Out 0925z S3	Malc	FRI
7840kHz	1020z	07/11 [429/00] Konyetz 1023z S3	Malc	TUE
	1020z	10/11 [424/00] Konyetz 1023z S2	Malc	FRI
	1020z	24/11 [422/34 63338.....62958] Konyetz 1031z S3	Malc	FRI
	1020z	28/11 [426/00] Konyetz 1023z S2	Malc	TUE
	1020z	01/12 [429/00] Konyetz 1023z S4	Malc	FRI
	1020z	05/12 [421/00] Konyetz 1023z S5	Malc , RNGB	TUE
	1020z	08/12 [421/00] Konyetz 1023z S4	Malc	FRI
	1020z	12/12 [427/39 87003.....73137] Konyetz 1032z S3	Malc	TUE
	1020z	15/12 [427/39 87003.....etc] Repeat of Tuesday	Malc	FRI
	1020z	19/12 [427/00] Fair	RNGB	TUE
	1020z	22/12 [422/00] Konyetz 1023z S5 (Dutch SDR)	Malc	FRI
10728kHz	1540z	04/11 [564/00] Konyetz 1543z S7	Malc	SAT
	1540z	08/11 [563/38 93095.....25013] Konyetz 1552z S3	Malc	WED
	1540z	11/11 [563/38 93095.....etc] Repeat of Wednesday	Malc	SAT
	1540z	18/11 [566/00]	Gary H	SAT
	1540z	29/11 [563/001] Konyetz 1543z S2	Malc	WED
	1540z	06/12 [563/00] Konyetz 1543z S2	Malc	WED
	1540z	09/12 [561/00] Konyetz 1543z S5	Malc	SAT
	1540z	13/12 [566/00]	Gary H	WED
	1540z	23/12 [560/35 45662.....89633] Konyetz 1551z S7	Malc	SAT
	1540z	27/12 [565/001] Konyetz 1543z S2	Malc	WED
11486kHz	1850z	04/11 [286/00]	Daniel	SAT
	1850z	08/11 [280/00] Konyetz 1853z S4	Malc	WED
	1850z	04/11 [286/00] KOHEI 1853z	Ed Smith	SAT
	1850z	29/11 [288/00] Konyetz 1853z S3	Malc	WED
	1850z	06/12 [287/00] Konyetz 1853z S2 (Dutch SDR)	Malc	WED
	1850z	23/12 [288/00] Konyetz 1853z S7 (Dutch SDR)	Malc	SAT
	1850z	27/12 [282/00] Konyetz 1853z S2	Malc	WED
11559kHz	1015z	02/11 [478/00] Konyetz 1018z S5	Malc	THU
	1015z	06/11 [479/00] Konyetz 1018z S5	Malc	MON
	1015z	09/11 [471/00] KOHEI 1018z	Ed Smith, Malc	THU
	1015z	13/11 [478/00] Strong	RNGB	MON
	1015z	27/11 [471/33 55409.....91247] Konyetz 1026z S3	Malc	MON
	1020z	30/11 [471/33 55409.....etc] Repeat of Monday	Malc	THU
	1020z	04/12 [479/00]	Gert, RNGB	MON
	1015z	07/12 [477/00] Konyetz 1018z S8	Malc, RNGB	THU
	1015z	11/12 [476/00] konyetz 1018z S7	Malc, RNGB	MON
	1015z	14/12 [472/00] Konyetz 1018z S7	Malc	THU
	1015z	21/12 [476/37 22368 88990 56814 53118 52646 63721 83066 27955.....66495 05750] Good	RNGB	THU
	1015z	28/12 [474/00] Konyetz 1018z S5	Malc	THU

V02 a

V02a made a surprising and welcome return to the airwaves in its 2000z slot on 30/11, it had not been heard since February 9th 2017. It appeared a total of three times before the end of the year. Here's hoping for more in 2018!

Logs

V02a 7554kHz 2000z 30/11 [----- 55182] Up late in progress, V02a not heard since 9/2/2017! Finished at 2035z with 3 X Final. End time indicates a start 7 minutes before the hour as seen with M08a. THU

V02a 7554kHz 2000z 21/12 [12242 23072 46301] THU

V02a 26/12 2000z came up in progress 1 minute after the end with 26415 12730 61515 PAUSE 50826 48338 22852 27853 before becoming too faint to copy. TUE

V07

Sunday

November 2017

0100z 18174kHz 0120z 15874kHz 0140z 14374kHz

05/11 183 1 6081 69 97981 06191 9061? 000 000 Weak
Note 4f dk

1831 6081 69
97981 77799 35455 52167 17950
24452 76304 11150 77370 84697
17418 45248 13206 82416 46037
58132 96272 30433 89805 47490
59293 24666 98362 83911 32611
39848 11428 77982 68994 36237
86708 48668 85633 04723 35276
42715 65824 07390 71903 29636
38332 37948 80571 08493 42788
07988 66843 52949 40924 68928
61691 70561 ?1199 68290 12674
06912 27803 96029 50501 86862
87567 59377 06442 88867 33318
19786 64253 06191 9061?
000 000 *Courtesy DanAr*

12/11 183 000 Weak

December 2017

0100z 16137kHz 0120z 14637kHz 0140z 13437kHz

10/12 164 000 Fair

17/12 164 1 476 77 67242 18204 ... 95402 70884 000 000 Weak
164 1 476 77

67242 18204 16189 98991 72634
12935 88926 20426 50634 68856
30163 73796 08185 82814 93674
28915 67006 49016 78086 22058
32263 81553 32796 27443 96604
01379 09792 87432 74935 94926
06579 57733 97153 06410 82586
02921 77723 23075 84734 76977
01864 65783 88270 75888 14164
16716 42807 73233 20305 58622
46692 77542 49198 05298 03252
68818 92056 30679 04774 72154
14495 31604 21727 84919 43604
82629 10155 74656 99218 27096
44654 11405 39384 46553 97049
95402 70884 000 000
Courtesy DanAr

24/12 164 000 Weak

31/12 164 000 Weak

V15 North Korean Intelligence via Radio Pyongyang

3250//3320//6400 kHz,
1615z 09/11
Music followed by a message in Korean

Recording: <http://www.numbersoddities.nl/V15-2017-11-09-1615utc.mp3> Ary THU

657/3250/3320/6400kHz Ary THU

1615z 14/12 AM
North Korean intelligence via Radio Pyongyang. Classical music followed by
messages in Korean

Recording: <http://www.numbersoddities.nl/V15-2017-12-14-1615utc.mp3>

657//3250//3320//6400kHz 1515z 23/12 AM Ary SAT

North Korean intelligence via Radio Pyongyang. Music followed by messages in Korean

Recording: <http://www.numbersoddities.nl/V15-2017-12-23-1515utc.mp3>

657, 3250, 3320, 6400kHz

1615z 28/12 AM Ary THU

North Korean intelligence via Radio Pyongyang. Messages in Korean

Recording: <http://www.numbersoddities.nl/V15-2017-12-28-1615utc.mp3>

V26

4243kHz1238z	16/11/17[(From M95 sked - USB - Chinese - Female - // N/H) (Remote tuner China)]	JPL	THU
4243kHz1225z	19/11/17[(From M95 sked - USB - Chinese - Female - // 9054) (Remote tuner China)]	JPL	SUN
4243kHz1204z	20/11/17[(From M95 sked - USB - Chinese - Female - // 9054) (Remote tuner China)]	JPL	MON
4243kHz1212z	24/11/17[(From M95 sked - USB - Chinese - Female - // N/H) (Remote tuner China)]	JPL	FRI
4243kHz0016z	06/12/17[(From M95 sked - USB - Chinese - Female - // 9054) (Remote tuner China)]	JPL	WED
4243kHz0620z	17/12/17[(From M95 sked - USB - Chinese - Female - // 9054) (Remote tuner South Korea)]	JPL	SUN
4243kHz0848z	19/12/17[(From M95 sked - USB - Chinese - Female - // 9054) (Remote tuner South Korea)]	JPL	TUE
4243kHz1216z	31/12/17[(From M95 sked - USB - Chinese - Female - // N/H) (Remote tuner China)]	JPL	SUN
4364kHz1204z	19/11/17[(From M95 sked - USB - Chinese - Male - // 8073) (Remote tuner China)]	JPL	SUN
4364kHz1213z	20/11/17[(IP - USB - Chinese - Female - // 8073) (Remote tuner China)]	JPL	MON
4364kHz1213z	24/11/17[(IP - USB - Chinese - Male - // N/H) (Remote tuner China)]	JPL	FRI
4364kHz0027z	06/12/17[(From M95 sked - USB - Chinese - Male - // 9054) (Remote tuner China)]	JPL	WED
8073kHz1204z	19/11/17[(From M95 sked - USB - Chinese - Male - // 4364) (Remote tuner China)]	JPL	SUN
8073kHz1213z	20/11/17[(IP - USB - Chinese - Female - // 4364) (Remote tuner China)]	JPL	MON
8073kHz0027z	06/12/17[(From M95 sked - USB - Chinese - Male - // 4364) (Remote tuner China)]	JPL	WED
9054kHz1225z	19/11/17[(From M95 sked - USB - Chinese - Female - // 4243) (Remote tuner China)]	JPL	SUN
9054kHz1204z	20/11/17[(From M95 sked - USB - Chinese - Female - // 4243) (Remote tuner China)]	JPL	MON
9054kHz0016z	06/12/17[(From M95 sked - USB - Chinese - Female - // 4243) (Remote tuner China)]	JPL	WED
9054kHz0620z	17/12/17[(From M95 sked - USB - Chinese - Female - // 4243) (Remote tuner South Korea)]	JPL	SUN
9054kHz0848z	19/12/17[(From M95 sked - USB - Chinese - Female - // 4243) (Remote tuner South Korea)]	JPL	TUE

Polytones

XPA c

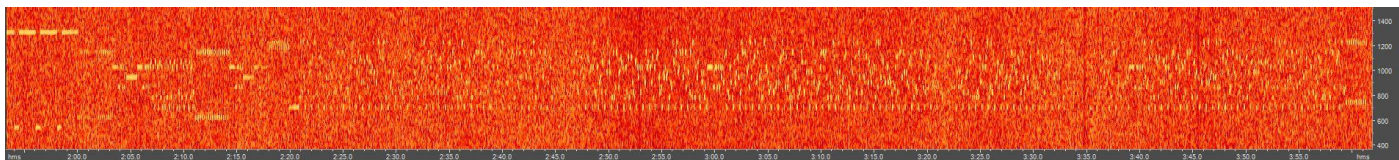
Monday/Wednesday

November 2017

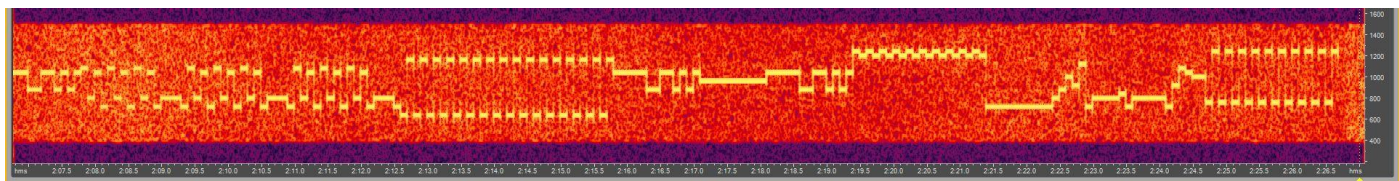
0700z	11409kHz	0720z	13509kHz	0740z	14609kHz	
01/11	456 1 03713 00149 09090 ... 17311				[0740z fair]	Very strong
06/11	456 000 08451 00001 00000 ... 10140					Weak, QSB3
08/11	456 000 01009 00001 00000 ... 10140					Very weak. Poor condx
13/11	456 1 09648 00187 23551 ... 33156				[0740z NRH]	Weak, QSB3/4
15/11	456 1 09648 00187 23551 ... 33156				[0720z Fair]	Weak, noisy
20/11	456 000 05774 00001 00000 ... 10140				[0740z NRH]	Fair, QSB3
22/11	456 000 07610 00001 00000 ... 10140					Very weak
27/11	456 1 00655 00171 15206 ... 40314				[0700z Weak, QSB3/4]	Fair, QSB3
29/11	456 1 00655 00171 15206 ... 40314				[0740z NRH]	Weak, noisy

December 2017

0700z	7756kHz	0720z	9056kHz	0740z	10656kHz	
04/12	706 000 01025 00001 00000 ... 10140				[0720/0740z Weak, Condx poor]	Very strong
06/12	706 000 06108 00001 00000 ... 10140					Strong
11/12	706 1 02182 00113 23466 ... 35327				[0720/0740z Weak, QSB4]	Fair
13/12	706 1 02182 00113 23466 ... 35327					Weak, QSB3
18/12	706 1 00114 00157 80061 ... 22212					Fair



20/12	706 1 00114 00157 80061 ... 22212	[See above, best image]	Weak, poor condx
25/12	706 000 02538 00001 00000 ... 37655	See long tones below	Strong



27/12	706 000 06451 00001 00000 ... 33663	Long tones [as represented above]	Strong
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XPA2 m

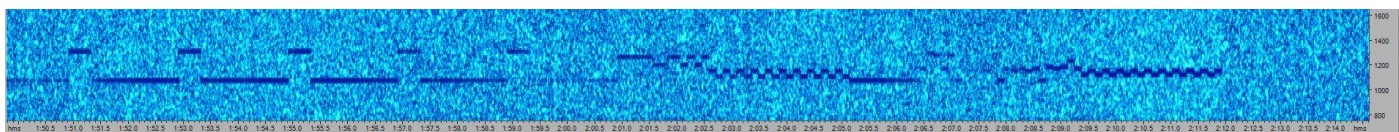
Sunday/Tuesday

November 2017

1300z	18238kHz	1320z	16238kHz	1340z	14438kHz	
05/11	08668 00001 00000 ... 10140					Very strong
07/11	09313 00077 17362 ... 00554					Very strong
12/11	09813 00077 17368 ... 00554					Fair
14/11	06396 00001 00000 ... 10140					Strong
19/11	03548 00001 00000 ... 10140					Very strong
21/11	07999 00091 78697 ... 52702					Weak, noisy
26/11	07989 00091 78697 ... 52702			[1300z Weak, QSB3]		Fair
28/11	01442 00001 00000 10140			[1340z Weak]		Fair

December 2017

1300z	14538kHz	1320z	13538kHz	1340z	12138kHz	
03/12	04770 00001 00000 ... 10140			[1340z Weak]		Very strong
05/12	04049 00067 12225 ... 67602					Very strong
04049 00067 12225 53120 12450 02082 77332 05399 50749 60110 20196 74254 54400 22667 04142 77416 38234 67469 84180 23776 94165 42191 87813 45535 69465 21764 40577 56826 26110 41912 96270 73665 72504 70767 76871 67880 05260 83858 86783 71843 86888 21422 92681 88030 99041 16813 38989 56056 55850 92726 24310 63097 70715 74009 80915 33004 55796 05285 44785 90906 94603 95576 22881 55087 49265 88754 47095 45649 11720 67602 <i>Courtesy Gert</i>						
10/12	04049 00067 12225 ... 67602					Fair
12/12	01430 00001 00000 ... 10140			[1300z Unworkable]		Weak, noisy
17/12	02396 00001 00000 ... 10140			[1300z Unworkable]		Weak



19/12	Unworkable null message	[See above, best image]	Weak with deep fades, vy poor condx
24/12	02303 00001 00000 ... 10140		Fair
26/12	02403 00083 64140 ... 27740	[1300zNRH]	Fair
31/12	02403 00083 64140 ... 27740	[1300zFair]	Strong

XPA2 p

This station under investigation

XPA2 r

Friday/Saturday

November 2017

1400z	17462kHz	1420z	16114kHz	1440z	14828kHz	
03/11	05012 00001 00000 ... 10140				[1440z Weak, QSB3/4]	Very strong
04/11	04041 00001 00000 ... 10140				[1420z Strong]	Very strong
10/11	Weak, unworkable					
11/11	09778 00113 75437 ... 55124				[1400z Unworkable]	Strong
17/11	03684 00101 18832 ... 14273				[1420z Fair,QSB3; 1440z Unworkable]	1400z Very strong
18/11	03684 00101 18832 ... 14273					Very strong
24/11	04474 00001 00000 ... 10140				[1420z Unworkable]	Weak
25/11	09495 00001 00000 ... 10140				[1420, 1440z NRH]	1400z Weak

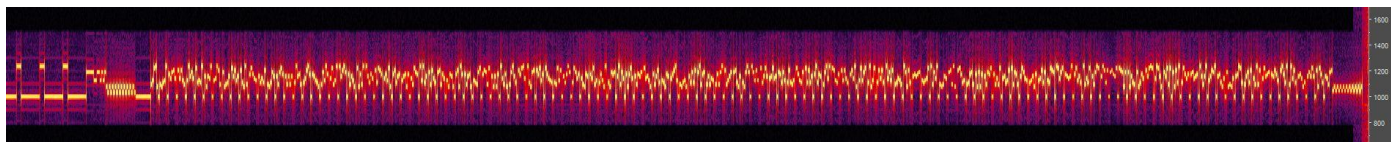
December 2017

1400z	15967kHz	1420z	13884kHz	1440z	12217kHz	
01/12	05415 00001 00000 ... 10140				[1440z Weak, QSB3]	Fair
02/12	08168 00001 00000 ... 10140				[0740z QSB4]	Weak, noisy
08/12	08807 00001 00000 ... 10140					Weak
09/12	07688 00001 00000 ... 10140				[1400z Weak]	Very strong
15/12	08994 00113 58202 ... 12013				[1400z NRH]	Strong
16/12	08994 00113 58202 ... 12013				[1400z NRH]	Strong

08994 00113 58202 73678 27800 23255 36784 44542 78514 88314
43338 41781 93452 98740 83686 81859 60114 22863 73537 61833
61515 26545 47860 06268 21471 23219 61321 03265 98366 20666
84943 58078 56624 43639 41103 37963 51581 43310 06489 03794
18786 85109 19137 33783 06181 66639 68114 76841 44811 60954
62770 42030 35661 31034 43087 50912 19839 65794 62945 51842
19553 70394 11331 40329 66807 71953 62490 32874 73674 93717
08296 25142 66247 02019 16994 26099 75654 90357 85807 54448
34096 06971 85240 18715 20044 63272 44565 67664 06041 35884
28923 77474 92213 99391 62543 43186 19808 19295 35589 56891
82130 92422 48687 96244 46880 03267 17981 29281 62009 91054
19636 62175 02172 61004 91376 12013 *Courtesy Gert*

22/12	07713 00001 00000 ... 10140				[1400/1420z Weak]	Fair
23/12	0664500001 00000 ... 10140				[1400zNRH]	Weak
29/12	04363 00001 00000 ... 10140				[1400z Fair]	Strong
30/12	07668 00001 00000 ... 10140					Strong

XPA2 t



XPA2 t 0700z 24/11 Good, strong signals on my RX320D in London SW7

Tuesday/Friday

November 2017

0700z	14517kHz	0720z	16017kHz	0740z	17417kHz	
03/11	06267 00103 40483 ... 52267					Strong
07/11	04180 00143 68886 ... 55104			[0740z QSB3]		Strong
10/11	04180 00143 68886 ... 55104					Fair
14/11	04444 00001 00000 ... 10140					Fair, noisy
17/11	02001 00001 00000 ... 10140					Strong
21/11	02899 00129 53673 ... 43607			[0740z Unworkable]		Weak, QSB3
24/11	02899 00129 53673 ... 43067			[0740z Weak]		Verystrong

02899 00129 53673 73720 29463 81219 44439 23970 66014 84724
71190 58532 41317 00164 40685 40404 19450 13795 54211 06295
38029 94796 50422 88509 94153 71875 35288 57145 24555 30865
92914 60731 67053 22544 57795 50455 21068 57608 44445 93055
06941 75893 90067 75825 85321 10827 41596 18635 30054 53802
15229 00656 49063 55583 40446 83322 50471 10044 35792 122nn
31617 69056 04022 05069 70246 67004 00686 86272 81484 34834
55162 17002 74116 81714 59144 06838 76115 62620 56388 27268
18828 16370 83227 0220n 96671 44445 21128 90639 00033 66099
77511 00550 55665 40657 50208 33116 80650 48632 01335 22716
21876 98367 54338 58231 90318 40688 49717 66548 87666 66410
66053 74888 38844 64808 66719 18535 56335 94049 24769 45113
66003 45981 04617 30907 38456 54752 78519 09371 45331 46484
77851 43067 *Courtesy PLdn*

28/11	02378 00001 00000 10140					Fair, QSB2
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December 2017

0700z	13393kHz	0720z	14493kHz	0740z	16293kHz	
01/12	02084 00001 00000 ... 10140					Strong
05/12	01514 00001 00000 ... 10140					Fair
08/12	08805 00001 00000 ... 10140			[0700z QSB3]		Weak
12/12	03827 00085 42877 ... 76545			[0700z Weak, QSB3]		Strong

03827 00085 42877 23302 11800 50908 40917 48093 58713 47737
74233 04396 85089 88775 96020 64960 08817 91080 25817 43391
55212 57819 05309 64691 53017 01850 39542 06250 27769 88184
49786 82933 77310 38701 26636 72189 50342 00916 12531 65217
42282 77986 81035 20437 74839 37595 94689 90099 68681 19578
00962 06423 92533 62223 71183 37650 37703 15883 26644 41693
91406 49607 26554 65019 44744 73367 66615 10666 87614 40000
32803 68174 96775 83290 56133 96205 94613 27619 72701 08738
52890 57644 41354 64103 51870 79390 22779 76545
Courtesy PLdn

15/12	03827 00085 42877 ... 76545					Fair
19/12	03935 00123 67426 ... 76404			[0700z QSB to nil]		Weak
22/12	03935 00123 67426 ... 76404					Weak, QSB3
26/12	Null message, unworkable					
29/12	07821 00001 00000 ... 10140					Weak

Tones, Hybrids and FSK

X06 Mazielka (1c) logs section

Date	Day	UTC	Freq	Scale	Monitor	Comments
20171101	Wed	0923-0926	14631	362154	Danix, HFD	G32
20171101	Wed	1103-1116	14650	215346	Danix/PL	G25
20171101	Wed	1457-1521	12158	564213	Danix, PoSW	R
20171102	Thu	0703-0706	17468	436512	Danix	G44
20171102	Thu	0707-0717	12195	314265	Danix, PoSW	G380
20171102	Thu	1223-1228	13405	352416	Danix	G43
20171103	Fri	0928-0932	16219	324615	Danix	G52
20171103	Fri	0958-1008	12215	361245	Danix	G53
20171103	Fri	1018-1025	13547	625413	Danix	G56
20171104	Sat	1451	13428	1--6--	Danix	X06b
20171104	Sat	1452	13894	1--6--	Danix	X06b
20171104	Sat	1453	14727	1--6--	Danix	X06b
20171104	Sat	1454	15807	1--6--	Danix	X06b
20171105	Sun	0750-0756	14934	351264	Danix	R
20171107	Tue	0921-0941	20336	246531	Danix	G16
20171107	Tue	0933-0934	15687	154263	PoSW	Alert 2 (G7) 1 S9
20171107	Tue	0934-0947	14358	154263	Danix, PoSW,	
				Christer/SE	2.2	
20171107	Tue	1227-1233	14942	325614	Danix	G392
20171107	Tue	1256-1305	11525	156234	Danix, HFD	G160
20171109	Thu	0955-1009	13506	164532	Danix	G106
20171110	Fri	0843-0957	14442	564213	Danix, PoSW	R (briefly paused at 0950-0951)
20171110	Fri	0957-1001	17463	256134	Danix	G125
20171112	Sun	0836	16128	6-----	Danix	Single tone before 16-tone MFSK
20171112	Sun	0837	14954	6-----	Danix	Same again on other freq
20171112	Sun	0838	13957	6-----	Danix	Same again on other freq
20171114	Tue	0834-0901	14861	542136	Aware/RU	G88
20171114	Tue	1001-1002	12100	612534	PoSW	Shortie, G89
20171114	Tue	1428-1519	12360	564213	Danix, PoSW	New frequency, R
20171115	Wed	0805-0812	13548	214356	Danix	G394(1)
20171115	Wed	0957-1038	12158	564213	Danix, Ary	I. p., R
20171115	Wed	1002-1025	16103	645321	Danix, Ary	I. p., G407
20171115	Wed	1100-1107	14650	215346	Danix	G167
20171116	Thu	0822-0834	14447	162543	Danix, Edd	G175
20171116	Thu	1150-1317	14812	1--6--	Ary	Very long X06b
20171116	Thu	1519-1556	12320	1--6--	PoSW	X06b, starting S7, becoming weaker
20171117	Fri	0831-1115	14750	1--6--	PoSW	Very long X06b with S7-9
20171117	Fri	1047	14884	161-6-	Ary	X06b before E07
20171117	Fri	1201-1250	11320	1--6--	PoSW	X06b - S8 with deep QSB
20171121	Tue	1033-1217	12320	16-161	Danix, Edd,	
				PoSW	X06b i. p.	
20171121	Tue	1235-1300	10320	16-161	Danix, Edd,	
				PoSW	X06b i. p.	
20171121	Tue	1305-1428	14640	16-161	Danix, Edd,	
				PoSW	Very long X06b i. p. (much weaker2)	
20171122	Wed	1024-1025	9350	1-6-1-	Edd Smith	X06b
20171122	Wed	1518-1540	11350	1-6-1-	PoSW	X06b, starting weak, peaked S8
20171123	Thu	0624	12335	1--6--	Edd	X06b i. p.
20171123	Thu	0632-0838	10330	1--6--	Edd, Ary	Very long X06b i. p.
20171123	Thu	0759-0820	14449	6-----	Ary	X06b single tone i. p.
20171123	Thu	0840	10330	1-6-1-	Ary	X06b
20171123	Thu	0845-0847	13854	521634	Ary	I. p., G248
20171123	Thu	0938	13506	164532	Ary	I. p., G252
20171123	Thu	1043-1114	10330	1--6--	Ary	X06b restart(3)
20171123	Thu	1132-1135	9320	1--6--	Edd	X06b i. p.
20171123	Thu	1213-1215	10250	1--6--	Ary	X06b i. p.
20171123	Thu	1304-1418	10250	1--6--	Edd	Very long X06b i. p.
20171123	Thu	1503-1518	10250	1--6--	PoSW	Strong X06b (comeback)
20171123	Thu	1522-1610	10250	1--6--	PoSW	Weaker X06b (comeback)
20171124	Fri	0704	13439	6--1--	Edd	X06b i. p.
20171124	Fri	0835-1000	12520	1--6--	Ary, PoSW	Long X06b with S9+
20171124	Fri	1035/1044	14884	1--6--	Ary	X06b before E07
20171124	Fri	1114-1246	11520	6--1--	Edd, PoSW	X06b i. p.
20171125	Sat	1053-1236	12300	1--6--	PoSW	X06b with S9
20171127	Mon	0818-0834	11525	156234	Danix	Alert 3 (G203) 1
20171127	Mon	0835-0839	14871	156234	Danix	3.2
20171127	Mon	0840-0845	13940	156234	Danix	3.3
20171127	Mon	1002-1011	12109	431625	PoSW	S9+, G221
20171127	Mon		17427	1--6--	Danix, Edd	X06b on/off throughout the day
20171128	Tue	1011-1022	16103	645321	Edd	I. p., R
20171129	Wed	0737-0744	16221	341265	Danix	R (possible scale operator error?)
20171129	Wed	1004	16315	6-1-6-	Ary, Edd	Long X06b i. p. with some breaks(5)
20171129	Wed	1859	7616	1--6--	Schorschi	X06b before E07, S9(4)
20171129	Wed	1906-1916	7616	1--6--	Schorschi	Again X06b before E07(4)
20171130	Thu	1044	15811	1--6--	Edd	X06b i. p. (6)

20171130	Thu	1045-1316	12321	1--6--	Ary	Next very long X06b i. p.
20171130	Thu	1710	13450	1--6--	Ary	X06b i. p.
20171201	Fri	0816	11340	1--6--	Edd	X06b - last few secs
20171201	Fri	1033-1034	12194	625413	PoSW	G56
20171203	Sun	0800-0806	14947	351264	Danix	G415 (new group)
20171203	Sun	1850-1853	4564	1--6--	Schorschi	X06b with S9
20171204	Mon	0730	12320	6--1--	Edd	X06b i. p. (end time missing)
20171204	Mon	0836-0845	12152	432516	Danix	G6
20171204	Mon	0847	12320	6-1616	Peter, PoSW	X06b, strong and very long(7)
20171205	Tue	0902-0915	11462	165423	PoSW	S9 with QSB, G12
20171206	Wed	0816-0858	14935	435621	Danix	Alert 2 (G416, new) 1
20171206	Wed	0818-0830	14501	214356	Danix, Ary	I. p., G24
20171206	Wed	0905	12066	435621	RNGB	2.2 (end time missing)
20171206	Wed	1018	12300	6-----	PoSW	X06b single tone with TX problems
20171206	Wed	1104-1115	14850	215346	Danix	Alert 2 (G25) 1
20171206	Wed	1115-1121	14650	215346	Danix	2.2 - 1127-29: 66-tone MFSK
20171206	Wed	1119-1122	12300	16--16	Peter/UK	X06b
20171206	Wed	1213-1233	10500	1--6--	Ary	X06b i. p.
20171206	Wed	1215-1242	12300	1--6--	Ary, PoSW	X06b, moved from 10500 kHz
20171206	Wed	1250	12300	1--6--	Ary	X06b again
20171107	Thu	0703-0711	11310	1--6--	Edd	X06b i. p.
20171208	Fri	1056-1111	12320	1--6--	Edd	X06b i. p. (comeback 1 h later)
20171208	Fri	1211-1216	12320	1--6--	Edd, PoSW	X06b i. p. (comeback)
20171210	Sun	1133-1135	13530	261453	Danix	G138
20171212	Tue	1030-1150	11230	1--6--	Antonio/IT	X06b, strong and long
20171212	Tue	1028-1149	16769	1--6--	Peter, Kopf, Antonio	Strong X06b i. p.
20171213	Wed	1146-1149	11520	1--6--	PoSW	X06b with S9+
20171213	Wed	1151-1322	12520	1--6--	PoSW	X06b with S9+ and breaks
20171213	Wed	1324-1635	10320	1--6--	PoSW	X06b, starting S9, becoming weaker
20171220	Wed	1109-1116	16115	215346	Danix	Alert 2 (G167) 1
20171220	Wed	1116-1118	14650	215346	Danix	2.2
20171225	Mon	1240-1243	12177	364152	Danix	G73
20171226	Tue	1020-1039	17470	216354	Danix	G228
20171227	Wed	1124-1127	16116	134265	Danix	G90 (with heavy TX problems)
20171227	Wed	0711-0932	8260	6-----	Edd	X06b single tone variant i. p.
20171227	Wed	1145-1319	17540	6-----	Edd, Kopf	Again i. p.
20171228	Thu	0635-0817	9811	61--6-	Edd, Ary	X06b i. p. (8)
20171228	Thu	0833-0839	9811	1-6--1	Ary	Changed via 563456 to 1-6--1
20171228	Thu	1000-1010	16115	215346	Danix	Alert 2 (G253) 1
20171228	Thu	1010-1027	14650	215346	Danix, Kopf	2.2
20171228	Thu	1000-1014	17470	216354	Danix	Alert 3 (G382) 1
20171228	Thu	1014-1025	14970	216354	Danix	3.2
20171228	Thu	1021-1026	17470	216354	Danix	3.3 (not in sync with 14970)
20171228	Thu	1024-1030	14655	164253	Danix	G251
20171228	Thu	1030-1047	11300	1-616-	Kopf	X06b i. p.

- 1) Carrier on till 0815, 0814-15: 66 tone MFSK, switched off some secs after X06 carrier.
- 2) On Moscow remotes it was active from 1305 to 1809 UTC!
- 3) Changing from "1-6-1-" via "1--621" to "1--6--".
- 4) Beginning with double-TX
- 5) End time missing
- 6) End time missing, stop monitoring: 1114
- 7) End time missing, weaker signal around 1453
- 8) Later changing into "161616" (X06a)

Many thanks to all contributors to the logs section. I wish you all a happy new year and a further good cooperation. Till the next edition I say good-bye

Jochen Schäfer, Numbers- and X06 Teamkopf

[Tnx Jochen and group]

HM01

HM01 has continued on the same schedules and frequencies over the past two months. They have been remarkably consistent for once with the same callups being heard on subsequent days only once and even in this case they picked back up the following day with the last digits being those expected if the sequence had continued uninterrupted. On 20/11 a broadcast station came up before the numbers started. On 7/12 a second HM01 voice was heard at the beginning of the transmission followed by some windows 'dings' before things were sorted out.

Seven files not ending in .TXT were transmitted 36683831.F1G 50113731.F1C 50102404.F1C 50647438.F1C 50605220.F1C 50051851.F1C 50088254.F1C. As always names of files with F1C extensions begin 50 and those with .F1G start with 36.

Logs

HM01 11435kHz 1600z	1/11 [41363 70377 75834 57225 63677 78711]		WED
HM01 11435kHz 1600z	2/11 [41364 70378 75835 57226 22261 78712]	New callup position 5, 22261 = 85282226.TXT.	THU
HM01 11435kHz 1600z	3/11 [41364 70377 75835 57227 22261 78712]	Same callups as yesterday. FRI	
HM01 11435kHz 1600z	4/11 [41366 16421 75837 57228 22262 78714]	Callups back in correct sequence. New callup position 2, 16421 = 67741642.TXT	SAT
HM01 11435kHz 1600z	5/11 [41367 16421 75838 57229 22263 78715]		SUN
HM01 11635kHz 2100z	6/11 [41368 16422 75839 26711 22264 78716]	New callup position 4, 26711 = 47262671.TXT.	MON
HM01 11435kHz 1600z	7/11 [43711 16423 31821 26711 22265 78717]	New callups positions 1 and 3, 43711 = 08364371.TXT, 31821 = 64543182.TXT.	TUE
HM01 11435kHz 1600z	8/11 [43711 16424 31821 26712 22266 78718]		WED
HM01 11435kHz 1600z	9/11 [43712 16425 31822 26713 22267 78719]		THU
HM01 11435kHz 1600z	10/11 [43713 16426 31823 26714 22268 35461]	New callup position 6, 35461 = 83773546.TXT.	FRI
HM01 11435kHz 1600z	11/11 [43714 16427 31824 26715 22269 35461]		SAT
HM01 11435kHz 1600z	12/11 [43715 16428 31825 26716 43731 35462]	New callup position 5, 43731 = 04224373.TXT.	SUN
HM01 11435kHz 1600z	13/11 [43716 16429 31826 26717 43731 35463]		MON
HM01 11435kHz 1600z	14/11 [43717 83311 31827 26718 43732 35464]	New callup position 2, 83311 = 77848331.TXT.	TUE
HM01 11435kHz 1600z	15/11 [43718 83311 31828 42771 43733 35465]	New callup position 4, 42771 = 76664277.TXT.	WED
HM01 11435kHz 1600z	16/11 [38311 83312 31829 42771 43734 35466]	New callup position 1, 38311 = 36683831.F1G.	THU
HM01 11435kHz 1600z	17/11 [38311 83313 27731 42772 43735 35467]	New callup position 3, 27731 = 30622773.TXT.	FRI
HM01 11435kHz 1600z	18/11 [38312 83314 27731 42773 43736 35468]		SAT
HM01 11435kHz 1600z	19/11 [38313 83315 27732 42774 43737 35469]		SUN
HM01 11435kHz 1600z	20/11 [38314 83316 27733 42775 24041 84301]	New callups positions 5 and 6, 24041 = 50102404.F1C, 84301 = 46788430.TXT.	
Started with Spanish broadcast station.			
HM01 11435kHz 1600z	21/11 [38315 83317 27734 42776 24041 84301]		TUE
HM01 11435kHz 1600z	22/11 [38316 83318 27735 42777 24042 84302]		WED
HM01 11435kHz 1600z	23/11 [38317 83319 27736 42778 24043 84303]		THU
HM01 11435kHz 1600z	24/11 [38318 37311 27737 12501 24044 84304]	New callup positions 1 and 4, 37311 = 50113731.F1C, 12501 = 61381250.TXT.	FRI
HM01 11435kHz 1600z	25/11 [38319 37311 27738 12501 24045 84305]		SAT
HM01 11435kHz 1600z	26/11 [36851 37312 27739 12502 24046 84306]	New callup position 1, 36851 = 81003685.TXT.	SUN
HM01 11435kHz 1600z	27/11 [36851 37313 11521 12503 24047 84307]	New callup position 3, 11521 = 24411152.TXT.	MON
HM01 11435kHz 1600z	28/11 [36852 37314 11521 12504 24048 84308]		TUE
HM01 11435kHz 1600z	29/11 [36853 37315 11522 12505 24049 84309]		WED
HM01 11435kHz 1600z	30/11 [36854 37316 11523 12506 63321 57411]	New callups positions 5 and 6, 63321 = 17256332.TXT, 57411 = 73865741.TXT.	
			THU
HM01 11435kHz 1600z	1/12 [36855 37317 11524 12507 63321 57411]		FRI
HM01 11435kHz 1600z	2/12 [36856 37318 11525 32731 63322 57412]	New callup position 4, 32731 = 80833273.TXT	SAT
HM01 11435kHz 1600z	3/12 [36857 37319 11526 32731 63323 57413]		SUN
HM01 11435kHz 1600z	4/12 [36858 54131 11527 32732 63324 57414]	New callup position 2, 54131 = 73305413.TXT.	MON
HM01 11435kHz 1600z	5/12 [74381 54131 11528 32733 63325 57415]	New callup position 1, 74381 = 50647438.F1C	TUE
HM01 11435kHz 1600z	6/12 [74381 54132 84701 32734 63326 57416]	New callup position 3, 84701 = 66448470.TXT.	WED
HM01 11435kHz 1600z	7/12 [74382 54133 84701 32735 63327 57417]	A second HM01 voice heard briefly followed by a windows ding during the callups.	
			THU
HM01 11435kHz 1600z	8/12 [74383 54134 84702 32736 63328 57418]		FRI
HM01 11435kHz 1600z	9/12 [74384 54135 84703 32737 02771 48321]	New callups positions 5 and 6, 02771 = 05800277.TXT, 48321 = 61454832.TXT.	SAT
HM01 11435kHz 1600z	10/12 [74385 54136 84704 57451 02771 48321]	New callup position 4, 57451 = 43155745.TXT.	SUN
HM01 11435kHz 1600z	11/12 [74386 54137 84705 57451 02772 48322]		MON
HM01 11435kHz 1600z	12/12 [74387 54138 84706 57452 02773 48323]		TUE
HM01 11435kHz 1600z	13/12 [74388 54139 84707 57453 02774 48324]		WED
HM01 11435kHz 1600z	14/12 [64031 62361 52201 57454 02775 48325]	New callups positions 1, 2 and 3, 64031 = 68756403.TXT, 62361 = 48656236.TXT,	
52201 = 50605220.F1C.			THU
HM01 11435kHz 1600z	15/12 [64031 62361 52201 57455 02776 48326]		FRI
HM01 11435kHz 1600z	16/12 [64032 62362 52202 57456 02777 48327]		SAT
HM01 11435kHz 1600z	17/12 [64033 62363 52203 57457 02778 33281]	New callup position 6, 33281 = 24743328.TXT.	SUN
HM01 11435kHz 1600z	18/12 [64034 62364 52204 57458 72351 33281]	New callup position 5, 72351 = 23567235.TXT.	MON
HM01 11435kHz 1600z	19/12 [64035 62365 52205 75481 72351 33282]	New callup position 4, 75481 = 87807548.TXT.	TUE
HM01 11435kHz 1600z	20/12 [64036 62366 52206 75481 72352 33283]		WED
HM01 11435kHz 1600z	21/12 [64037 62367 52207 75482 72353 33284]		THU
HM01 11635kHz 1800z	22/12 [64038 62368 52208 75483 72354 33285]		FRI
HM01 11635kHz 1800z	23/12 [64039 62369 36611 75484 72355 33286]	New callup position 3, 36611 = 60813661.TXT.	SAT
HM01 11635kHz 1800z	24/12 [16751 01821 36611 75485 72356 33287]	New callups positions 1 and 2, 16751 = 77401675.TXT, 01821 = 00850182.TXT.	
			SUN
HM01 11635kHz 1800z	25/12 [16751 01821 36612 75486 72357 82541]	New callup position 6, 82541 = 50088254.F1C	MON
HM01 11635kHz 1800z	26/12 [16752 01822 36612 75487 86841 82541]	New callup position 5, 86841 = 34158684.TXT.	TUE
HM01 11635kHz 1800z	27/12 [16753 01823 36614 18511 86841 82542]	New callup position 4, 18511 = 50051851.F1C.	WED
HM01 11635kHz 1800z	28/12 [16754 01824 36615 18511 86842 82543]		THU
HM01 11635kHz 1800z	29/12 [16755 01825 36616 18512 86843 82544]		FRI
HM01 11635kHz 1800z	30/12 [16756 01826 36617 18513 86844 82545]		SAT
HM01 11635kHz 1800z	31/12 [16756 01826 36617 18513 86844 82545]		SUN

From Dan in Argentina

10715kHz2200z	12/11(43715 16428 31825 26716 43731 35462) qsa3	DanAR	SUN
10715kHz2200z	10/12(74385 54136 84704 57451 02771 48321) qsa2	DanAR	SUN

PoSW offers his HM01 logs:

Reception of signals from HM01 remain somewhat erratic and variable; on the plus side, transmissions on 11462 kHz have been heard on a few occasions with reasonable copy.

28-Oct-17, Saturday:- 0927:10s UTC, 11462 kHz, first time for a while a readable signal has been heard on this frequency, “45577 70372 43838 57221 63672 55444”, starting up after the break, data at 0930:30s UTC, strong “XJT” on LF side.

1007 UTC, 12180 kHz, transmission in progress, weak signal but unusual to hear anything at all on days when this frequency is used.

29-Oct-17, Sunday:- 0727 UTC, 9330 kHz, “45578 70373 75831 57221 63673 55445”, S8 with deep QSB. British Summer Time ended in the wee small hours of this morning, clocks back by one hour, HM01 stays on UTC so now on one hour earlier local time. S8 with deep QSB, was becoming much weaker around 0735z.

30-Oct-17, Monday:- 0827 UTC, just after, 9065 kHz, “41361 70374 75832 57222 63674 55446”, strong FSK/RTTY signal on HF side.

1-Nov-17, Wednesday:- 0727:5s UTC, 9330 kHz, “41362 70376 75833 57224 63676 78711”.

5-Nov-17, Sunday:- 0757 UTC, 9065 kHz, “41366 16421 75837 57228 22262 78714”, S9 with QSB.

6-Nov-17, Monday:- 0827 UTC, 9065 kHz, “41367 16421 75838 57229 22263 78715”, S9 with the usual deep fading up and down, data at 0830:24s UTC.

7-Nov-17, Tuesday:- 0857 UTC, 11462 kHz, “41368 16422 75839 26711 22264 78716”, S5 to S6 at best, very strong “XJT” on LF side not helping matters. 0957 UTC, 12180 kHz, 5Fs as earlier, S7 with rapid up and down fading, best signal on this frequency for some time.

13-Nov-17, Monday:- 0806 UTC, 9065 kHz, in progress, S9 with the usual QSB, heard 5Fs, “43715 16428 31825 26716 43731 35462”, nothing heard on 9330 an hour earlier.

15-Nov-17, Wednesday:- 0758 UTC, 9065 kHz, weak signal, almost unreadable, fairly sure 5Fs 43717, 31827 and 26718 were in there somewhere.

19-Nov-17, Sunday:- 0809 UTC, 9065 kHz, transmission in progress, S9 with the usual fading, heard 5Fs, “38312 83314 27731 42773 43736 35468”, Stopped for the break after 0819z.

26-Nov-17, Sunday:- 0826:50s UTC, 9065 kHz, “38319 37311 27738 12501 24045 84305”, peaking S9 with QSB, best signal from HM01 since last Sunday, data started at 0830:10s UTC.

4-Dec-17, Monday:- 1003 UTC, 9155 kHz, most unusual in recent times to receive a readable HM01 on this ten o'clock in the morning schedule, transmission in progress, heard 5Fs, “11526 32731 63323 57413 36857 37319”, S9 with the usual quick fading up and down.

8-Dec-17, Friday:- 0856:35s UTC, 9240 kHz, “74382 54133 84701 32735 63327 57417”, S9 with the usual up and down, data sounds started just before 0900z.

10-Sun-17, Sunday:- 0858 UTC, 9240 kHz, “74384 54135 84703 32737 02771 48321”, preamble in progress when tuned in, data at 0859:54s UTC.

The heaviest fall of snow for several years this morning, listening to Stansted Air Traffic Information on VHF while monitoring HM01 on short-wave, “Runway closed for snow clearance, wet snow 5mm, wind 080 degrees 13 knots, runway visual range 750 metres, heavy snow, overcast towering cumulus 300 feet, temperature 0, dew-point -0, QNH 975 hectopascals.”

11-Dec-17, Monday:- 0858 UTC, 9240 kHz, call-up in progress, “74385 54136 84704 57451 02771 48321”, peaking S8 with the usual deep fading.

13-Dec-17, Wednesday:- 0858 UTC, 9065 kHz, call-up on the wrong frequency, 9065 is used for the transmission that starts before 0800z although nothing heard when checked at around 0800. Vanished not long after tuned in, came up on the correct frequency 9240, “74387 54138 84706 57452 02773 48323”, S9 with QSB.

24-Dec-17, Sunday:- 0928 UTC, 9240 kHz, “64039 62369 36611 75484 72355 72355 33286”, S7 at best with the usual quick up and down in signal strength, stronger than when checked just before 0900z when it was too weak to copy.

FSK: F01, F06 and F11

In the family Ia digital counterparts, these two months were marked by further removal of long-time non-traffic schedules. Link 50046 has delivered null messages on the turn of November and December, while link 70147 couldn't settle on the frequencies to use.

Family III digital counterpart F11 continues to eliminate its schedules, leaving only three by the end of 2017, down from seventeen at the end of 2014. This family also has newer, standalone digital modes, which will be covered at a later time.

F01 [Ia]

Monday	0025/0035/0125/0135z	12101/9215kHz	Link ID 00117
06/11	No reports		
13/11	No reports		
20/11	No reports		
27/11	No reports		
	0025/0035/0125/0135z	10884/8157kHz	
04/12	No reports		
11/12	No reports		
18/12	No reports		
25/12	No reports		
1st Wednesday	1940/1950/2000z	8172/6791/4546kHz	
01/11	53448 61580 00736 90984 66308 82908 51213 15965 48419 64615 34726 99563 ... 52236 00000		
	1940/1950/2000z	7684/5326/4029kHz	
06/12	40138 01555 12737 90984 53098 22973 63214 15965 35109 04680 46727 99563 ... 53222 00000		
Friday	2230/2240/2330/2340z	20741/18702kHz	Link ID 00116
03/11	No reports		
10/11	No reports		
17/11	No reports		
24/11	<u>11177 00116 42596 24047 01679</u>	60946 32430 74377 40775 51085 94484 96825 90745 73874 94503 34201 98693 ... 47165 00000	
	2230/2240/2330/2340z	18169/15765kHz	
01/12	<u>11177 00116 46592 01048 02079</u>	86160 91915 09496 82465 34747 14048 33461 55466 96756 43002 53850 56673 ... 48205 00000	
08/12	No reports		
15/12	No reports		
22/12	No reports		
29/12	<u>11177 00116 87592 28052 01689</u>	16688 37574 82097 63500 81069 29831 43866 18421 04326 80680 27493 66173 ... 52166 00000	
Saturday	1810/1820/1830z	9247/7762/5216kHz	
04/11	Null message		
11/11	Null message		
18/11	Null message		
25/11	Null message		
	1810/1820/1830z	8131/6824/4471kHz	
02/12	NRH		
09/12	NRH		
16/12	NRH		
23/12	NRH		
30/12	NRH		

F06 [Ia]

Sunday	1530/1540/1550z	10644/8159/7438kHz	Link ID 10053
05/11	<u>11166 10053 58429 03062 01589</u>	66672 83839 35492 54585 46496 31515 87287 28521 73112 60094 47158 32671 ... 62156 00000	
12/11	Null message		
19/11	Null message		
26/11	Null message		
	1530/1540/1550z	9416/7836/6875kHz	
03/12	Null message		
10/12	Null message		
17/12	Null message		

20/12	Null message		
24/12	Null message		
1st/3rd Monday	0500/0510/0520z	7658/6778/5361kHz	Link ID 70059
06/11	Null message		
20/11	Null message		
	0500/0510/0520z	6788/5384/4454kHz	
04/12	Null message		
18/12	Null message		
Tuesday	1500/1510/1520z	10844/8164/6773kHz	Link ID 00052
07/11	Null message		
14/11	Null message		
21/11	Null message		
28/11	Null message		
	1500/1510/1520z	12133/10274/8148kHz	
05/12	Null message		
12/12	Null message		
19/12	Null message		
26/12	Null message		
Tuesday	1650/1700/1710z	10536/8174/7318kHz	Link ID 10053
07/11	<u>11166 10053 21069 07066 01709</u>	22546 84581 48355 47395 77737 52961 26453 22879 51659 12904 29292 72504 ... 66168 00000	
14/11	Null message		
21/11	Null message		
28/11	Null message		
	1650/1700/1710z	9313/7928/6783kHz	
05/12	Null message		
12/12	Null message		
19/12	Null message		
26/12	Null message		
Wednesday	0600/0610/0620z	20082/18207/16141kHz	Link ID 40122
01/11	<u>11166 40122 48372 28045 03319</u>	56512 82505 02368 25685 59995 33556 03435 48289 00269 75781 41804 91078 ... 45329 00000	
08/11	<u>11166 40122 21547 04046 03029</u>	46544 69790 09462 39798 50234 15458 28080 55299 94763 48102 15815 89094 ... 46300 00000	
	<u>11166 40122 10987 04047 02369</u>	02084 18609 16293 23296 92654 43307 01639 72493 16895 85373 64236 86541 ... 47234 00000	
15/11	Null message		
22/11	<u>11166 40122 16243 18048 03789</u>	05027 17641 45400 50326 44115 76366 66674 51078 00547 25672 67983 26755 ... 48376 00000	
29/11	<u>11166 40122 25014 25049 02029</u>	85171 28991 07192 19143 35700 87872 47562 24529 48968 29158 45027 48584 ... 49200 00000	
	<u>11166 40122 98765 25050 02899</u>	36920 21236 87300 70945 35195 08650 72447 76417 58012 83914 74101 08505 ... 50287 00000	
	0600/0610/0620z	20157/18241/16204kHz	
06/12	<u>11166 40122 15207 02051 03359</u>	40600 02939 59160 31108 10981 65724 14891 55768 49387 58562 09593 14184 ... 51333 00000	
13/12	<u>11166 40122 96321 09052 03029</u>	17155 32095 60346 81495 72355 05583 58063 35825 44518 27840 71025 81166 ... 52300 00000	
	<u>11166 40122 02471 09053 02579</u>	86668 52990 07722 14211 21878 16600 98638 08424 67548 00312 05623 43583 ... 53255 00000	
20/12	Null message		
27/12	<u>11166 40122 96324 23054 04089</u>	12368 94176 36968 76318 08371 11757 02447 40332 55183 97791 83791 59441 ... 54406 00000	
Wednesday	0800/0810/0820z	19104/17428/15603kHz	Link ID 70048
01/11	Null message		
08/11	Null message		
15/11	Null message		
22/11	Null message		
29/11	Null message		
	0800/0810/0820z	18039/16204/14363kHz	
06/12	Null message		
13/12	Null message		
20/12	Null message		
27/12	Null message		

2nd/4th Wednesday 0900/0910/0920z		20476/18915/16328kHz	Link ID 00052
08/11	<u>11166 00052 14683 24021 01749</u>	44490 26134 41856 22078 55117 84829 65494 40426 77599 76201 00382 97356 ... 21172 00000	
	(Repeat of 25/10)		
22/11	<u>11166 00052 83627 21022 02229</u>	67260 49831 52856 34313 78987 07526 76494 52761 90369 99908 11382 09691 ... 22220 00000	
0900/0910/0920z		20875/18747/16316kHz	
13/12	<u>11166 00052 83627 21022 02229</u>	67260 49831 52856 34313 78987 07526 76494 52761 90369 99908 11382 09691 ... 22220 00000	
	(Repeat of 22/11)		
27/12	<u>11166 00052 93142 26023 01969</u>	46390 36136 53856 22078 57017 94821 77494 40426 79499 86203 12382 97356 ... 23194 00000	
2nd/4th Wednesday 1015/1025/1035z		20349/18573/16245kHz	Link ID 10031
08/11	Null message		
22/11	Null message		
1015/1025/1035z		18046/16326/14944kHz	
13/12	Null message		
27/12	Null message (3 years since the latest message as of this week!)		
1st/3rd Wednesday 1230/1240/1250z		18191/15963/13436kHz	Link ID 90073
01/11	NRH		
15/11	NRH		
1230/1240/1250z		17478/15838/13387kHz	
06/12	NRH		
20/12	NRH		
Thursday 1330/1340/1350z		11162/9915/8187kHz	Link ID 80214
02/11	Null message		
09/11	Null message		
16/11	Null message		
23/11	Null message		
30/11	Null message		
1330/1340/1350z		10968/9354/7963kHz	
07/12	Null message		
14/12	Null message		
21/12	Null message (1 year since the latest message as of this week)		
28/12	Null message		
2nd/4th Saturday 0900/0910/0920z			Link ID 70147
11/11	<u>11166 70147 23590 10069 02169</u>	74565 93196 03678 58128 50131 73973 96470 94306 66925 67304 91734 84902 ... 69214 00000	
	(TX made on expected November frequencies, 15623/13469/11569kHz)		
25/11	<u>11166 70147 64821 22070 03129</u>	75517 83790 87065 00533 15948 71519 57410 29794 45156 08142 73817 80151 ... 70310 00000	
	(TX made on unexpected frequencies, 18xxx/16245/14358kHz, the message uses a new triple timestamp key)		
0900/0910/0920z			
09/12	<u>11166 70147 28315 08071 01709</u>	67335 23184 04678 58128 43901 03961 97470 94306 59795 97392 92734 84902 ... 71168 00000	
	(Back to the old December frequencies, 13938/12136/10314kHz, and also the old triple timestamp key)		
23/12	<u>11166 70147 95783 22072 02249</u>	68435 93108 04678 58128 44001 73985 97470 94306 50895 67316 92734 84902 ... 72222 00000	
	(Once again unexpected frequencies, 16130/14363/12216kHz, but at least the old triple timestamp key was retained)		
2nd/4th Saturday 1000/1010/1020z		20868/18259/16113kHz	Link ID 70004
11/11 & 25/11	<u>11166 70004 48263 10001 00689</u>	51521 19017 62329 27117 62960 02282 98903 18116 80849 78710 20451 41073 ... 01066 00000	
1000/1010/1020z		20951/18643/16314kHz	
09/12 & 23/12	<u>11166 70004 71290 08002 00909</u>	62365 66441 63354 53520 43786 71053 75311 00996 55170 91007 75146 80836 ... 02088 00000	
Saturday 1100/1110/1120z		16236/14419/12128kHz	Link ID 80214
04/11	<u>11166 50046 34971 03016 01449</u>	52569 79070 08903 40530 19636 63685 63196 63673 57784 20166 86902 82228 ... 16142 00000	
11/11	<u>11166 50046 54391 10017 00889</u>	18739 49087 08903 40530 75806 33692 63196 63673 13954 90173 86902 82228 ... 17086 00000	
18/11	<u>11166 50046 78325 17018 00909</u>	60509 59084 08903 40530 27676 43699 63196 63673 65724 00170 86902 82228 ... 18088 00000	
25/11	Null message		

	1100/1110/1120z	15623/13854/11586kHz
02/12	Null message	
09/12	Null message	
16/12	<u>11166 50046 76415 15019 02049</u> 61829 49082 09903 40530 28996 33697 64196 63673 66044 90178 87902 82228 ... 19202 00000	
23/12	<u>11166 50046 39472 22020 02129</u> 43619 49099 09903 40530 00786 33604 64196 63673 48834 90185 87902 82228 ... 20210 00000	
30/12	Null message	

Saturday	1500/1510/1520z	22871/20629/18553kHz	Link ID 40133
04/11	Null message		
11/11	<u>11166 40133 51937 09035 01409</u> 68830 05046 87968 73572 22681 64635 17384 05053 64592 86828 12974 56314 ... 35138 00000		
18/11	Null message		
25/11	Null message		

	1500/1510/1520z	20648/18483/16196kHz
02/12	Null message	
09/12	Null message	
16/12	Null message	
23/12	Null message	
30/12	<u>11166 40133 68374 28036 01429</u> 53871 55065 88968 73572 17622 14654 18384 05053 59533 36847 13974 56314 ... 36140 00000	

F11 [III]

Monday/Thursday	0800/0805z	6836kHz	ID 0454
30/10 & 02/11	Null message		
06/11 & 09/11	Null message		
13/11 & 16/11	Null message		
20/11 & 23/11	<u>88888 88888</u> 10095 89543 52585 48513 23563 89598 88503 49771 78819 83035 13298 47491 26410 04508 79037 50788 33643 67281 53156 65644 79057 17520 92857 79239 21396 36506 06169 41559 41166 29799 54713 43703 62051 77154 46628 03633 91890 <u>88888 88888 00041 00041</u>		
27/11 & 30/11	Null message		
04/12 & 07/12	<u>88888 88888</u> 50920 00583 53324 67704 19728 63570 19609 85006 03959 01881 66882 68703 20959 42661 23318 28432 62023 40691 21743 44777 81946 38680 88340 94425 43709 93551 76357 37001 80245 21524 79091 79598 <u>88888 88888 00036 00036</u>		
11/12 & 14/12	Null message		
18/12 & 21/12	Null message		
25/12 & 28/12	Null message		

Monday/Wednesday	0845/0850z	9370kHz	ID 0353
31/10 & 03/11	Null message		
06/11 & 08/11	Null message		
13/11 & 15/11	<u>88888 88888</u> 82848 35084 57886 68884 47659 02120 14680 61189 66688 01290 37796 23708 94624 24127 01888 71903 79028 80524 69930 81825 86248 77437 40954 63148 79166 26574 27190 78840 18723 66932 80763 49548 82345 70097 09321 21390 28862 57120 50957 41321 <u>88888 88888 00044 00044</u>		
20/11 & 22/11	Null message		
27/11 & 29/11	Null message		
04/12 & 06/12	Null message		
11/12 & 13/12	Null message		
18/12 & 20/12	<u>88888 88888</u> 65827 52714 98049 41622 09263 20211 04415 97110 71687 18939 57757 07179 40719 92642 65455 56249 17864 17309 42583 99450 59923 21599 07159 01921 97975 91921 10619 92279 21298 13728 53182 47027 71694 14772 29864 59326 69654 <u>88888 88888 00041 00041</u>		
25/12 & 27/12	Null message		

Tuesday/Friday	0900/0905z	7499kHz	ID 0554
31/10 & 03/11	Null message		
07/11 & 10/11	Null message		
14/11 & 17/11	Null message		
21/11 & 24/11	NRH (its associated S11a schedule at 0915z has moved to Wednesday/Sunday 2050z – while leaving behind F11)		
28/11 & 01/12	NRH		
05/12 & 08/12	NRH		
12/12 & 15/12	NRH		
19/12 & 22/12	NRH		
26/12 & 29/12	NRH		

31/10 & 01/11 Null message
 07/11 & 08/11 Null message
 14/11 & 15/11 Null message
 21/11 & 22/11 Null message
 28/11 & 29/11 **88888 88888** 94035 56822 78103 07267 67335 08972 90998 23812 29142 35991 17056 17100 84744 51254 09676 55129 79544
 65797 98765 57689 99928 46311 24243 00065 69242 15049 40598 71855 91555 91377 86539 26432 64339 **88888 88888 00037**
00037
 05/12 & 06/12 Null message
 12/12 & 13/12 Null message
 19/12 & 20/12 **88888 88888** 51342 13394 12092 04512 75228 30284 59480 39943 45851 16379 26480 07116 98580 47468 84173 87861 85591
 30098 72403 72257 59950 76653 79737 16608 75790 06687 46383 12467 99577 66825 30737 97062 20279 **88888 88888 00037**
00037
 26/12 & 27/12 Null message

[Thanks Danix]

THE BERLIN WALL, MY PART IN its FALL!

Continued

Part 2

A Collective Security Framework

Ten western European nations, the United States, and Canada formed NATO in 1949 as a collective security alliance that would act primarily as a backstop to Soviet expansionism in Eastern Europe. The NATO covenant is perhaps best embodied in Article V of the North Atlantic Treaty, which states that "an armed attack against one or more [member states] in Europe or North America shall be considered an attack against them all." The security umbrella provided by NATO after WWII was an essential condition for the economic reconstruction of Western Europe under the U.S. Marshall Plan.

In the mid-1950s, Greece, Turkey, and West Germany joined the alliance. In response, the Soviet Union and seven Eastern European states signed the Warsaw Pact in 1955. Just six years later, the ideological divide bisecting the continent was physically realized with the construction of the Berlin Wall.

Now twenty-eight members strong, the alliance has, since the fall of the Soviet Union, decided to tackle a broad array of new threats. Terrorism, weapons proliferation, piracy, regional and ethnic conflict, and other security challenges have replaced the menace of a nuclear-armed Soviet Union. As of 2012, NATO has five ongoing missions: peacekeeping operations in Kosovo; anti-terrorism patrols in the Mediterranean; anti-piracy in the Gulf of Aden and off the Horn of Africa; assistance to the African Union in Somalia; and the top alliance priority, the International Security Assistance Force (ISAF) mission in Afghanistan.

Proxy war or proxy warfare is a war that results when opposing powers use third parties as substitutes for fighting each other directly. While powers have sometimes used governments as proxies, violent non-state actors, and mercenaries; other third parties are more often employed. It is hoped that these groups can strike an opponent without leading to full-scale war.

Proxy wars have also been fought alongside full-scale conflicts. It is almost impossible to have a pure proxy war, as the groups fighting for a certain nation usually have their own interests, which can diverge from those of their patron.

Typically proxy wars function best during cold wars, as they become a necessity in conducting armed conflict between at least two belligerents while continuing cold warfare. A more accurate description is one nation getting another to fight a war, supported, supplied and equipped by that other nation.

Sphere of Influence. An area, normally a country or very big piece of territory, over which one nation has the main say in what happens and how that land is ruled. Union of Soviet Socialist Republics. Old name by which Russia was known. It was called this due to it having a one party system called socialism, or, as it was more accurately known, communism. The idea of communism is well known, namely that all men are equal. In practice, despite this being a case of the blindingly obvious, it never seems to work out like that! It is worth noting that ALL states which have adopted communism have become one-party systems and had to employ a massive secret police force to keep it in power. Another massive flaw is the idea that all the first communists had, namely that they had to export world revolution. They did not think much of the idea of ASKING people if they wanted communism, just give it to them, usually from the barrels of guns. (Come on guys, you have all seen AK 47s on TV)

WARSAW PACT. The treaty which the Eastern Bloc nations formed to counter NATO. It takes its name from having been signed in Warsaw, capital of Poland. (But you guys knew THAT!!!) It consisted of the following countries: - Albania. Bulgaria. Czechoslovakia. German Democratic Republic, also known as East Germany. Poland. Romania. Union of Soviet Socialist Republics. (This is the name by which Russia was then known. It consisted of many more small republics such as Kazakhstan and Mongolia which have since broken away. Ukraine is one case in point!!!)

TIME LINE LEADING TO THE COLD WAR. FIRST WORLD WAR.

The outbreak of the war was July 28th 1914. It ceased on November 11th. 1914. It got its name from being fought over the whole world, and not being restricted to just a few counties as had until then been the case. It was fought by on the one side ,the Allies ,or Entente (French), consisting of :- Britain, Australia, New Zealand, Canada, India, Newfoundland, South Africa ,France, Belgium, Greece, Portugal, Russia, Japan and others, including many small African counties which belonged to the British Empire.

The other side was known as:-

The Central Powers:- Germany, Austro-Hungarian Empire(includes Austria, Hungary, Slovenia, Bosnia and Herzegovina, Croatia, the Czech Republic, Slovakia, large parts of Serbia and Romania,)

Turkey and its empire. (Mainly small Arab nations.)

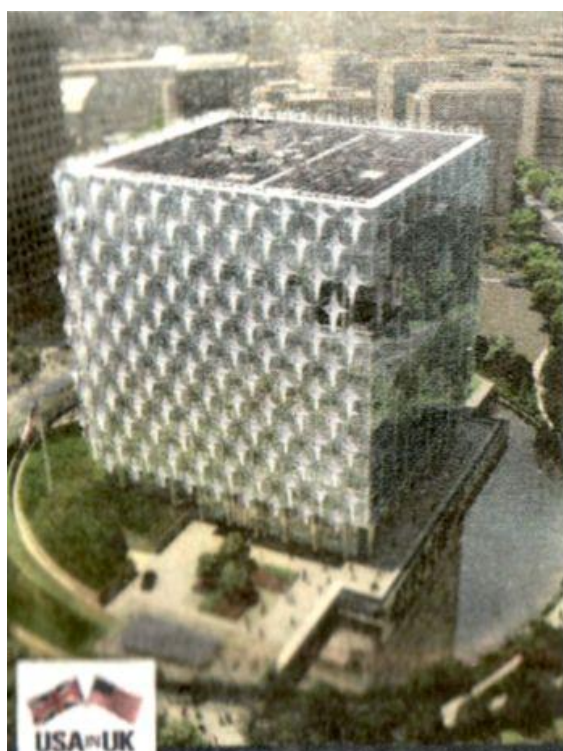
Here is no place to discuss such a huge and terrible war. Suffice to say, that at this time governments of many countries were vastly different. Many were total monarchies, being run by the royal family of that country. Russia, Austria- Hungary, and Germany are good examples. Russia is worth special mention due to being an almost total monarchy, being run by the Tsar Nicholas. This royal family was, at that time, related to our British royal family, as was the Kaiser Wilhelm II of Germany. The fact that despite these royal families being related, Britain and Russia still went to war with Germany shows how ineffectual this system was. It was due to the total power exercised by the monarchy that the spread of communism occurred. (Also called Bolshevism) This is the political system which lasted in Russia and other eastern Bloc countries until as recently as 1989 and later. I mention this because it was due to the total inability of communism to co-exist with what is called capitalism, or free trade, which is the system which we here in UK and America and most other Western countries use, that the Cold War really started. This inability to co-exist bred mistrust, and that led to the scarcely veiled hostility which was the Cold War. The Russian Revolution, which resulted in the death of the Russian royal family, started in 1917, although obviously trouble had been brewing in Russia for many years before, due to the terrible conditions under which people were forced to live. Put briefly, the Russian royal family was killed and Russia withdrew from the First World War in 1917. Luckily for us, the USA entered the war in April 1917. The causes of the First World War are far outside the scope of this article, but mention must be made of my maternal Grandfather, Richard Evans. That is your father's Great Grandfather and your Great Great Grandfather. He was called up in July 1914, having already served in the last Boer War. (Also called the Second Boer war or Second South African war which lasted from October 1899 to May 1902). Happily, he survived, despite being gassed in 1917 and returned home in 1918 at the end of the war. He returned to the coal mining industry and was crippled by a coal truck crushing his foot.

That did not stop him becoming a first class bookie's runner. (Ask your Dad!) The casualty list of all the nations involved ran into millions of dead. One source gives the dead of all nations as 10 million soldiers of all nations' killed. 10 million civilians, again of all nations involved, died from disease and starvation, which was a result of the war. Certainly figures to think about! It was called the war to end all wars, but obviously was not, because the Second World War broke out in September 1939. The second war was, as far as I can see, a direct result of the first. The surrender terms forced on Germany resulted in massive financial collapse and unemployment in Germany. The Austro-Hungarian Empire, which had consisted of many small nations, was broken up, as was the Turkish Empire. Many political parties were struggling for power in Germany during the 1920s and the National Socialists, also known as Nazis, were the ones who came to power, due to the support which they gained. To make matters worse, France insisted on repayments awarded under the Armistice, and Germany borrowed heavily from USA to repay this. This made a bad situation in Germany much worse. At this time, there did not exist an organisation such as the United Nations, or UN. Instead, there was the League of Nations. I think my father described this organisation best when he called it a talking shop. They had very little legislative power. If a country did not want to participate they could simply ignore it, which many did, notably Japan. The UN, or United Nations, of today is a trifle better, but not that much. In Germany, there was political chaos. Various parties fought for power and there was massive inflation, which caused equally massive unemployment and poverty. Very prominent among these was the National Social German Worker's Party, better known as the NAZI party

Shortly put, the leader of the NAZI party, Adolf Hitler, promised the people what they wanted, which was food and work. Once nominated as chancellor, he shortly afterwards made all opposition parties illegal. He also reintroduced conscription. He delivered on his promise, but built up the armed forces, many of which had been restricted in size by law under the peace treaty which ended the First World War. Despite this being illegal under the terms of the Armistice ending WW1, no action was taken by either France or Britain. America was too far away to take action and was frankly not interested enough in European affairs to take action. Remember, at about this time, the 1920s, there was a worldwide financial depression which resulted in literally millions being unemployed in most counties of the world. Also, under the terms of the Armistice, Germany was forced to pay millions to France, Britain and other nations which had suffered in WW1, money which she did not have and was forced to borrow to repay. This in the middle of a world recession and general financial slump. Sound familiar? So, with a now booming economy, much larger Army, Navy and Air Force, Hitler began taking over countries. Here, it is worth stressing again that all his actions were in breach of the Armistice which had been signed in 1918/1919 ending World War One. Action by Britain and France would have stopped it. He was named dictator of Germany in 1933. In short order, he reoccupied the Rhineland by sending in German armed Forces to occupy what was supposed to be, under the terms of the Armistice, a non- military area of Germany (1936). It also contained the Ruhr Valley, which was and still is, the heart of Germany's steel and coal industry. Then, in 1938, he moved into Austria in what is known in German as the Anschluss, or joining together. As you know, the national language of Austria is German. So common ties there then! This was done with the consent of the Austrian government which was, by now, under the control and influence of the same Nazi party as held power in Germany. In the same year, 1938, Germany occupied the German speaking part of Czechoslovakia, known as the Sudetenland. This area had a large number of German speaking ethnic Germans living there. Again, he was allowed to get away with this. Then, in September of 1939, on Hitler's orders, German Forces invaded Poland, using a border dispute as a pretext for war. Poland had a mutual defence treaty with France and Britain, and both nations declared war on Germany that month. Italy, which had an agreement with Germany and Japan, known as the Berlin-Rome axis, later joined in on Germany's side. Italy surrendered in 1943 and joined the war on the side of the allies. In 1941, on 2nd June, Germany invaded Russia. Russia was then known as USSR. Japan attacked USA in December 1941 which brought USA into WW2 on the side of Britain and her allies. Australia, Canada and New Zealand had declared war on Germany at the same time as Britain. Thus, it was now a truly global conflict. Hence, world war! The war ended in 1945 in victory for the Allies. It was shortly afterwards that the Cold war began. (NO, your Grampy did NOT start it!) After World War 2, it did not take long for the Allied Alliance between Russia, Britain, USA and France to fall apart. This was due, probably, to the fact that the USSR (or Soviet Union) was a communist state and would not or could not agree with any nation which was not. It is also worth pointing out that ALL the members of the Warsaw Pact were also communist states. Russia had liberated most of the nations in the eastern bloc and made sure that communist governments were installed in those nations. The armed forces of the Warsaw Pact were also armed and equipped by Russia or the USSR, as it was then known. The nations of the Warsaw Pact were exclusively communist run. Communism, by its nature cannot stand opposition. In the early 1920s, an organisation called COMINTERN, short for Communists International, was formed for the express purpose of starting trouble in any non-communist nation with the intention of getting a communist government installed in that nation. No prizes for guessing that it was largely raised supported and financed by Russia/USSR.

To be continued

Gizza Job




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PoSW's Items of Interest in the Media:-

"All power to the Soviets! Peace, bread, land!"; yes, the one-hundredth anniversary of the Russian Revolution, the "October Revolution" - by the calendar in use in the Russia of 1917, commemorated - although not exactly celebrated - by several British media outlets, BBC Radio 4, for example, broadcasting some factual programming on the event, BBC Radio 3, the classical music station, featuring works by various Russian composers from the Soviet era. Even the mouthpiece of the Capitalist Reactionary Imperialist Running Dogs-more commonly known as *The Times* newspaper - had a pull-out supplement in the 24-October issue with the title, "Red October; Revolution that shaped a century", containing articles on various aspects of the Russian Revolution and its aftermath and consequences.

Not so much observed in the Russia of the present day, according to a short item in *The Times* of 7-November, written by Tom Parfitt in Moscow with the headline, "Kremlin tries to damp down 1917 revolutionary fever, which says, "Russia marks the centenary of the Bolshevik Revolution today amid Kremlin attempts to stifle the appeal of popular uprisings.

Official events are subdued, reflecting nervousness about unleashing revolutionary sentiment before elections in March when President Putin is expected to seek a fourth term.

The armed revolt began in Petrograd (St Petersburg) against the provisional government that had taken power after the abdication of Tsar Nicholas II. The Bolsheviks stormed the Winter Palace the next day and the tsar was arrested and then killed with his family in 1918.

Mr Putin said that he hoped Russians would use the centenary 'to close the dramatic events that divided our country and our nation, and that it will become a symbol of overcoming this schism'

The president has lamented how the events had 'fractured' the lives of millions, asking: 'Was it not possible to follow an evolutionary path rather than go through a revolution?'

Analysts say the anti-uprising rhetoric chimes with the Kremlin's propaganda efforts against opposition activists led by lawyer Alexei Navalny.

He plans to run against Mr Putin despite warnings he will be excluded from the ballot over a fraud charge. He has support among young people and thousands took part in protests against Mr Putin in March and June."

And, according to some, we Brits have those Russian Bolsheviks to thank for the fact that we are allowed to vote at all. At the time of the last general election I did a bit of research into the electoral process and found that the move towards "one person one vote" began in 1920 with a piece of legislation called the Representation of the People Act, subsequently amended over the years. Apparently this was put through Parliament in a sense almost of panic by the ruling elite who, having taken notice of what had been going on in Russia and terrified that something similar was going to happen here, decided to extend the franchise to the plebs, something they had always resisted but it seems that it was considered a more acceptable option than having their big mansions and country estates taken from them in a British version of the Bolshevik Revolution. No doubt they thought that the unpleasantness in Russia was just a passing phase and that soon Lenin and his pals would be dealt with and some branch of the Romanov Dynasty would be back in power, and with the role model for world revolution disposed of, things could be restored to the satisfaction of the elites in the UK.

Death of Christine Keeler:- A name from the past, her demise was reported in *The Times* of 6-December, even making the front page with a colour photograph of her in her heyday looking rather gorgeous - in contrast with photographs of her in recent years which have appeared in the press from time to time - with the caption, "Christine Keeler, the model whose relationship with cabinet minister John Profumo helped to bring down Harold Macmillan's government in the early 1960's has died, aged 75.

The obituary inside, taking over a page, includes that famous photograph of her in a state of undress sitting astride a chair the wrong way round and a general summary of what went on back in the day, the facts of which have been public knowledge for many years.

The expression, "Second hand dartsboard syndrome", that is to say, too many pricks, comes to mind. The connection with the world of espionage was because that at the same time as being involved with secretary of state for war John Profumo, she was also being serviced by a Soviet diplomat. As the obituary says with regard to the wild parties which took place at Lord Astor's home in Cliveden, Berkshire, "... Keeler came to the attention of Profumo while frolicking naked in the swimming pool. Next day he asked her for her telephone number. It was July 1961 and their affair lasted only a month, during which time Keeler shared her sexual favours with a Russian naval attaché, Captain Yevgeny Ivanov, who was also an habitué of the Cliveden parties.



Because Ivanov was under close MI5 surveillance in the hope that he might defect, this triangular liaison came quickly to official notice and the cabinet secretary, Sir Norman Brook, urged Profumo to end his involvement with Keeler. Profumo's letter to her of August 8 1961, subsequently known as the 'Darling' letter from its affectionate exordium, was effectively the end of their liaison."

Profumo's fall from grace came about because he denied in Parliament that he had been involved with Keeler, "... He had already denied having sexual relations with her to the attorney-general, the chief whip and the prime minister's private secretary. Now it was decided that he must repeat these denials in the House. There on March 22, 1963, in one of the most barefaced lies ever uttered in the Commons, he stated that there had been 'no impropriety whatsoever' in his relationship with Keeler".

The upshot of all this was that Profumo eventually realised the game was up, and as the obituary says, "Cutting short a holiday abroad with his wife, he returned to London in June 1963 to confess to the Tory chief whip. At the same time he wrote a letter of resignation to the prime minister. In the words of Lord Denning's report on the affair: 'The House of Commons held him to have been in contempt. His name was removed from the Privy Council. His disgrace was complete'."

"Christine Keeler, model and showgirl was born on February 22 1942. She died from chronic obstructive pulmonary disease on December 4, 2017, aged 75." [Image from www.express.co.uk]

"A well regulated militia being necessary to the security of a free State, the right of the people to keep and bear arms, shall not be infringed"; our American Cousins will recognise this as being the Second Amendment to the Constitution of the United States. Not so in the increasingly dysfunctional cesspit known as the United Kingdom. Possession of a firearm can get you five years in prison. Especially if you are a white middle-class male, the section of the population which the Political Class hates the most. The only individuals who are permitted to run around with guns, pretty much as they please, are inner-city black youths; not an actual law which has been passed by Parliament, but a *de facto* situation following on from the London riots of a few years ago which took place when, following a tip-off that a ne'er do well of that particular classification with a long record of drug-dealing and firearms offences was on his way, "tooled up", as the current vernacular has it, - displaying all the attitude and body language of the American "Gangsta" culture which these people seek to emulate - to settle scores with a rival engaged in the same kind of enterprise, and upon being challenged by an armed response unit of the Metropolitan Police - acting upon "information received" - as he stepped out of a cab, and failing to comply with the said officers instruction, was instantly subjected to a case of "terminal lead poisoning", probably of the nine millimetre variety. After which all hell broke loose in several parts of the Capital City of my country. Burning and looting for several days, as I recall, designer clothing stores, computer stores and stores selling alcoholic beverages were particular targets, and a furniture store in the London borough of Croydon, a family business since Queen Victoria was a gal, was burned to the ground. It was reported at the time that one business which survived completely undamaged and unscathed was a large book store; seemingly, the miscreants involved didn't go much in for reading.

It has been reported that the police officer who fired the fatal shot has repeatedly been subjected to investigation after investigation ever since the event as those set in authority over him seek to find some way of bringing some charge against him for daring to open fire on member of an ethnic

minority and thus endangering "community cohesion", so much so that since then, the officers of The Met are somewhat disinclined to enforce the law against such individuals. It has been said that your average London copper would much rather arrest a fifty-something white man for being in possession of a Swiss Army penknife than a Jamaican "Yardie" gangster with an automatic pistol and two spare loaded magazines on his person, which is probably something of an exaggeration, but not too far from the truth; white males do not have an army of "Social Justice Warriors" agitating on their behalf in the same way that every ethnic minority in this country has. Just saying. All this came to mind with the story that has been running in my local press throughout the month of November with regard to the firearms amnesty which the police in the county of Essex have been holding. From the *Saffron Walden Reporter*, one of our local papers of 23-November:- "More than 100 firearms were handed in to Essex Police in the first week of a crackdown on illegal weapons. People are still urged to hand in unwanted or unlicensed firearms. The appeal ends on Sunday November 26.

A total of 122 firearms were handed in during week one: 63 real firearms, 58 imitation or air weapons and a stun gun.

A total of 129 firearms were collected in last year's appeal.

An Essex Police spokesman said: 'We are asking you to hand in to us any unwanted or unlicensed firearms you have to stop them falling into the wrong hands.' People can hand in firearms to the following police stations around the county between 9am and 4:30pm: Basildon, Braintree, Chelmsford, Greys, Harlow and Southend."

Not Saffron Walden police station, then; oh no, I've just remembered, they closed that down two years ago, a historic building dating from the mid-nineteenth century, now due to be re-developed for private housing. If I were a betting man I would lay money that the weapons handed in here are are mostly the likes of old war souvenirs, that Broom-handle Mauser Grandpa brought back from the Somme, the shiny nickel-plated Italian automatic Uncle Charlie brought back on his leave following the North African campaign. The criminal classes, with their modern handguns of which there is reportedly a steady illegal flow of imports from Eastern Europe, are no doubt laughing themselves silly over this. To illustrate the point, a photograph accompanying the article in the *Reporter* shows five items which have been handed in; two of them appear to be flintlock pistols, circa early 1800's, there is what seems to be a rifle or shotgun of similar vintage and two items which look as if they are out a John Wayne film, a revolver and a rifle, both of which have the look of the 1870's about them.

And there is a distinct connection with the October Revolution with all this; until the aftermath of World War 1 the availability of firearms was not so tightly controlled in the UK. Hand guns were fairly easy to acquire legally, but criminals knew full well that using a gun in their activities carried severe penalties, in particular if an act of armed robbery resulted in the death of the victim there was a mandatory death sentence waiting for the perpetrators which tended to make them think twice about using a gun. It was at about the same time as the Representation of the People Act was being debated that the Political Class, fearful that firearms in the possession of the hoi polloi might be used to challenge the Established Order - Chairman Mao knew what he was talking about when he said, "Political power grows out of the barrel of a gun" - brought in the first of many laws restricting the ownership of guns.

Point to ponder:- "If voting changed anything, they'd abolish it" - Ken Livingstone, Mayor of London 2000 – 2008.

[Thanks Peter]

In keeping with Peter's mention of the demise of Christine Keeler:

Interesting piece for those of a 'certain age' from PLdn who, at the age of 13 enjoyed reading the ongoing story in his father's discarded 'News of the World'.

The News of the World fell foul of its own scandals and is now discontinued. PLdn noted at the time that reporters always 'made their excuses and left ' and that the paper was referred to as 'News of the Screws' or 'Screws of the World.' Doubtless due to the fact a good proportion [or it seemed that way to a 13 yo testosterone loaded schoolboy] of content seemed to involve divorce proceedings where photographs had been produced to prove infidelity or where the reporter had either been approached with sexual services or acted as a lecher to gain such.

Christine Keeler: former showgirl at the heart of the Profumo affair dies aged 75

Chloe Chaplain

Evening Standard 5 December 2017

<https://www.standard.co.uk/news/uk/christine-keeler-former-showgirl-at-the-heart-of-the-profumo-affair-dies-aged-7-a3711371.html>

Christine Keeler, the former showgirl at the heart of the Profumo scandal of the 1960s, has died aged 75.

Her son, Seymour Platt, told the Guardian she died on Monday at the Princess Royal University Hospital, near Farnborough.

"My mother passed away last night at about 11.30pm," he told the paper.

He said Keeler, who was embroiled in the scandalous affair in the midst of the Cold War, had been suffering for a long time with lung disease.

A hospital spokesman confirmed Ms Keeler had died, having been a patient at the Princess Royal.

Mr Platt paid tribute to his mother in a Facebook post on Tuesday evening.

He wrote: "My mother, the grandmother to my beautiful little girl, passed away late last night.

"She suffered in the last few years with Chronic Obstructive Pulmonary Disease but lost the fight.

"As many of you know my mother, Christine Keeler, fought many fights in her eventful life, some fights she lost but some she won.

"She earned her place in British history but at a huge personal price.

"We are all very proud of who she was."

Keeler became a household name in the UK after emerging at the heart of the infamous Profumo scandal in 1963, which rocked British politics and ultimately contributed to the downfall of the beleaguered Tory Government the following year.

When she was just a teenager, she had an affair with cabinet minister John Profumo and a Russian diplomat at the same time.

The affair led to the shaming of John Profumo, who was forced to quit his job as War Secretary, and to leave Parliament altogether after it was revealed he had lied about his personal life.

The scandal linked together politicians and diplomats with prostitutes and sex parties in a lurid drama that rocked the establishment.

Christine Margaret Keeler, born in 1942, left home at the age of 15 and worked as an office junior, a showroom assistant and a barmaid.

Before she was 16 she was working as a showgirl in a club in Greek Street, in the heart of London's red-light Soho district.

During this period, she met high-society osteopath Dr Stephen Ward, variously described as an artist and a procurer of women, as well as suspected of being a double-agent.

This marked the beginning of the biggest political sex scandal of the 20th century.

The stunning red-head began moving in Mayfair's smartest but not necessarily the most savoury circles.

Dr Ward, who lived in a Thames-side summer house on Viscount Astor's famed estate at Cliveden, introduced her, fatefully, to Mr Ivanov and Mr Profumo.

Miss Keeler also had a West Indian lover, John Edgecombe, a petty criminal and film extra, whose actions, ironically sparked off the whole Profumo scandal.

Mr Edgecombe was involved in a shooting incident outside a flat - Stephen Ward's - in Wimpole Mews, Marylebone. It was alleged that he fired shots at her, but was acquitted on charges of shooting at her with intent to murder her or cause grievous bodily harm and was instead convicted of having a firearm with intent to endanger life.

However, Ms Keeler, who was due to give evidence at his trial, had gone missing.

By now, March 1963, Westminster, and indeed the whole country, was teeming with rumours about Mr Profumo's presence at wild parties at Cliveden and his association with Ms Keeler.

Questions were asked in the house about the suspicious and intriguing circumstances surrounding the "missing witness", who had fled to Madrid, where she was actually tracked down by reporters.

Meanwhile, Mr Profumo was forced to make a statement to the Commons in March that year, in which he fiercely denied any impropriety whatever in his relationship with Ms Keeler and threatened libel writs on anybody who suggested otherwise.

His assertion of a platonic friendship with Ms Keeler, which he said had ended in 1961, was accepted by the Cabinet.

But MPs and newspapers remained sceptical and there were suggestions she had been packed to avoid an embarrassing cross-examination at the trial, so as to protect those in high places.

Finally, on June 4 1963, Mr Profumo resigned after confessing that he had lied to the House.

It was at the time when Dr Ward was arrested and charged with living on immoral earnings. Dr Ward committed suicide after being found guilty of some, but not all, the charges.

In 2001, Ms Keeler wrote a book in which she claimed that Dr Ward ordered her to sleep with Mr Ivanov and Mr Profumo in the hope she would pass on secrets.

<https://www.standard.co.uk/news/uk/christine-keeler-former-showgirl-at-the-heart-of-the-profumo-affair-dies-aged-7-a3711371.html>

By today's standards what Christine Keeler and the rest of the players did was not as scandalous as it has been painted. What is prominent is that the then Minister for War, John Profumo, who lied to the Attorney General then acted honourably and stepped down after repeating the same lie to the House and being caught out. Even his actions with Miss Keeler pale to insignificance with what we see alleged against MPs and beyond today; who squirm, sweat and wriggle until they are slung out of their seats. Oh for the manners and honour of the sixties and the banishing of the politically driven bullshit, excuses and lies continuously made by those who run the country and who treat the electorate like idiots and plebs 'My name's Jim and I sell washing machines' <http://www.dailymail.co.uk/news/article-3773140/I-m-washing-machine-salesman-called-Jim-J-M-MP-Keith-Vaz-hid-identity-two-Eastern-European-rent-boys.html>



'You stay here. I don't want you being chatted up by any washing machine salesman!'

Courtesy Daily Mail <http://www.dailymail.co.uk/news/article-3775268/MAC-Washing-machine-salesmen.html>

The Spectre's News articles

The Yorkshire Post 03/11/2017

<https://www.yorkshirepost.co.uk/news/opinion/do-you-have-what-it-takes-to-join-gchq-a-yorkshire-expert-reveals-what-you-need-1-8838603>

Do you have what it takes to join GCHQ? A Yorkshire expert reveals what you need

GCHQ – Britain’s intelligence and cyber security agency – is looking for recruits. Here Ross, a Higher Technical Apprentice from Bradford, explains the opportunities – his full name can’t be given due to security protocol. PICTURE this, it’s year 13, you’re coming off the back of some strong A-levels and everyone can’t stop talking about what university they’re going to apply for. The only questions in your head is ‘is university the right thing for me?’ and ‘will it mean I get the job I want afterwards?’ That’s me two years ago.

My name’s Ross, I’m 19, and I’m from Bradford – West Yorkshire. I’m a Higher Technical Apprentice for GCHQ. I studied electronics, maths and physics at A-level, and got the grades to study robotics and artificial intelligence at Leeds University, but instead, I moved 170 miles away to Cheltenham to start my career at GCHQ. But why move all that way for a job that’s hiring straight out of college? Let me explain two things. The first, what is GCHQ? GCHQ is an intelligence and cyber security agency. We use world-class skills, technology and tradecraft against threats to the UK and her allies. We work 24/7 to protect the UK from these threats that come from criminals, nation states, terrorists and hackers. We’ve been doing this work since 1919, and, as we say in God’s own county, we’re reet good at it. The second thing is my scheme. It’s designed by GCHQ to fast-track the next generation of staff. You can relax knowing your tuition is covered and you have no student loan to worry about. You also get a pay cheque stacked on top of it all for a full working month. No more worries about the type of ramen you’re going to live off after Freshers.

To start with, the degree you’ll be working towards is a BSc in cyber security. Modules such as Java or C programming, cyber security and penetration testing, amongst others, are covered. These will leave you with all the tools necessary to join the workforce. Speaking of which, you’ll be joining the workforce a little earlier than you expect, with placements throughout your apprenticeship within GCHQ – you will also get the opportunity to apply for placements at MI5 or MI6. I didn’t actually know who or what GCHQ was until 12 hours before the application deadline. I applied as a joke thinking there’s no way I would get a job at an intelligence agency, and here I am two years later, 12 months into my employment, and no sign of looking back. At common misconception about life in an intelligence agency is that everyone’s suited and booted. There is no specific dress code. GCHQ understands the immense strain that people can come under, they know that the less you have to worry about, the better. One thing a lot of people are worried about when they get a job in a large organisation is that they will be stuck in one department. At GCHQ, anyone can retrain if they find a career they think they’d prefer. It’s actually encouraged, since that way different ways of looking at things reach all departments. And there’s always something for everyone, a career for anyone willing to put the effort in. Our reach is widespread globally and across the UK. From the main office in Cheltenham, to Bude, Scarborough and Greater Manchester, or one of the sister agencies in London. The work carried out here is world-leading and ground-breaking and you can be a part of it. So why are we reaching out to the North? Well let’s face it, Northerners are some of the hardest, smartest and most ingenious people. Yorkshire is the home of cats-eyes, chronometers and kilner jars, and who else can brave the harsh Scarborough winter weather or the bustling city life of Manchester? We need people that can bridge the North-South language barrier and who want to be part of our mission, keeping the UK safe. As our director said recently: as the threat diversifies so must the workforce that tackles it. You could kickstart your analysis career, sorting through reams of information and reporting on your findings. Maybe working in the cyber or research fields is where you see yourself, or perhaps dealing with the terrestrial signals that flood the earth. Or if you’re not into that, or fancy a change, you could maintain everything that allows the staff at GCHQ to keep on top of the ever-changing dynamics around the world. But to even start considering any of that, you need to ask yourself what qualities do you have? Are you willing and driven to learn? Do you have the collaborative mindset that suits the GCHQ workplace, where without teamwork, the entire system would struggle? The ability to bounce ideas off colleagues to work out an issue like a true problem-solver, rather than just giving up because “it’s too hard”. You need to be honest and trustworthy, with a strong sense of integrity. If your job is literally protecting the UK, then being dishonest could affect the lives of even one person, which is one too many. One of the biggest issues holding back applicants is people not thinking they’re smart enough. The level of knowledge needed to get started is much easier to learn and catch up on than having to change your entire outlook on life, and GCHQ recruitment recognise that. However, all the above is worthless if you aren’t proactive enough to head over to www.gchq-careers.co.uk and start the recruitment process today.

The Guardian 11/11/2017

<https://www.theguardian.com/world/2017/nov/11/george-blake-russian-spies-must-save-world-from-nuclear-hell>

George Blake: Russian spies must save world from nuclear hell

On the eve of his 95th birthday, former KGB double agent says SVR officers are heroes of modern battle between good and evil

The KGB cold war double agent George Blake has hailed Russia’s modern spies as the heroes of “a true battle between good and evil” and said they must save mankind from nuclear destruction.

In an unexpected and slightly melodramatic statement on the eve of his 95th birthday, Blake said that officers of the Russian foreign intelligence service, the SVR, now have “the difficult and critical mission” of saving the world.

“I believe that you will serve our common cause selflessly and courageously,” he said. “I believe in the final victory over the treacherous enemy. This belief has given me strength.”

The men and women of the SVR must “save the world in a situation when the danger of nuclear war and the resulting self-destruction of humankind again have been put on the agenda by irresponsible politicians”, he added.

The statement, which was released by the SVR and carried by a number of Russian news agencies, also quoted Blake as saying that terrorism has “left bloody traces in many corners of the world”.

Born in the Netherlands and raised in Egypt, Blake first arrived in Britain as an escaping member of the wartime Dutch resistance. After joining the Royal Navy he was recruited by the UK’s foreign intelligence service, MI6, in 1944.

He was serving in Seoul when the Korean war broke out in June 1950, and was quickly captured by North Korean forces. He later said that he became committed to the communist cause after witnessing relentless US air force bombing of North Korean towns and villages. His first contact with the KGB was arranged while he was still imprisoned by North Korea.

In Friday’s statement Blake said that after seeing civilians killed by “the American military machine” he decided to become a double agent.

“I realised back then that such conflicts are deadly dangerous for the entire humankind and made the most important decision in my life to cooperate with the Soviet intelligence voluntarily and for free to help protect peace in the world.”

On his release from North Korean captivity, Blake was posted by MI6 to Berlin, where he betrayed a number of intelligence operations, including the construction of a tunnel from west to east, dug in order to tap telephone lines in east Berlin.

He fell under suspicion in 1961 following disclosures made by a Polish defector, and was arrested and charged under the Official Secrets Act. After being prosecuted at the Old Bailey in secret, he was jailed for 42 years, at that point the longest sentence handed down by a British court.

In 1966 he escaped from Wormwood Scrubs prison in London with the assistance of an Irish criminal and two men who were serving sentences for their roles in organising anti-nuclear demonstrations at a US airfield in the east of England.

On reaching France he made his way to Berlin, where he crossed from west to east inside a wooden box attached to the undercarriage of a car.

He was then taken to Russia, where he has lived ever since, most recently in a country house outside Moscow. His wife, a former MI6 secretary, with whom he had had three children, divorced him.

Russia, he said in his statement, had become his "second motherland", adding that he wanted to thank SVR officers for their friendship and understanding.

Also on Friday, SVR chief Sergei Naryshkin congratulated Blake on his birthday, describing him as "a reliable comrade, a man of great wisdom ... and a skilful teacher" who had been a role model for the agency's officers.

In his last interview with a Russian newspaper, in 2012, Blake said that he had adapted well to life in the country. He was, he joked, akin to a "foreign-made car that adapted well to Russian roads".

BBC News 20/11/2017

<http://www.bbc.co.uk/news/world-middle-east-42012380>

MI6's secret 'multi-million pound' Cold War slush fund

In the late 1940s, a man in late middle age - military bearing, neat moustache, hair balding under his bowler hat - would walk down Whitehall in London to number 22.

Back then it was a bank: a discreet, exclusive establishment for members of the military. The bank's name, Holt's, is still carved in stone above the door, although the building now houses part of the Cabinet Office. The man would give his name as Captain Theo Spencer and withdraw money from one of his accounts. He would then walk back down Whitehall and head to his office at 54 Broadway. The destination is a clue that his name was not really Captain Theo Spencer. His office was the headquarters of the Secret Intelligence Service, best known as MI6. The man was Sir Stewart Menzies, the service's chief, often known simply by a single letter: C.

And the newly revealed story of his bank account throws new light on how MI6 worked and also Britain's role in the Middle East.

In a meeting in 1952 with the two most senior officials from the Treasury and the Foreign Office, Menzies offered a confession.

The record of this meeting lies in a remarkable document unearthed in the National Archives by Dr Rory Cormac of the University of Nottingham, and forms the basis for an investigation by BBC Radio 4's investigative history programme, Document.

MI6 archives are closed but the document appears in a file that was declassified as part of a recent release from the cabinet secretary's secret and personal archive.

"He drops a bombshell of an inheritance," Dr Cormac says of the meeting. Since Sir Stewart was about to hand over the reins of MI6 to his successor, there was something he thought officials should know.

For close to a decade he had an account that would become known as the "unofficial reserve", in practice his own, secret slush fund.

Even by the standards of a secret service, the account was remarkably clandestine. No-one knew about it. "Not the Treasury or the Foreign Office. Certainly not ministers. And not even MI6's own finance director," explains Dr Cormac.

At the meeting, the permanent secretary to the Treasury, Sir Edward Bridges, asked Sir Stewart how much money he had in the account and across his reserves, explaining that if it was a substantial sum, that might raise questions of accountability.

MI6 was supposed to be funded by a secret vote of Parliament and under the political control of the foreign secretary.

"The use of such unofficial reserves by 'C' without the prior consent of the Foreign Office, could enable him to carry out policies other than those approved by the Foreign Office and without their knowledge. Clearly this was unlikely to happen, but it would be wrong not to preserve against it," the document records.

Menzies explains that the "unofficial reserve ran to £800,000 but it later emerges this was an underestimate. The actual sum was nearly double, £1.4m, more than £39m in today's money by one estimate.

What was it for? C's answer in 1952 is revealing. "He thought it right to have a large sum to meet such contingencies as (a) a very large inducement to some person in an absolutely key position, or (b) the Vote for the Service being drastically cut in some political emergency in a way which would make it impossible to carry on the Service in the way it was necessary."

Option (a) means an incredibly large bribe for some foreign official, and Option (b) seems to refer to the possibility that politicians might cut MI6's budget, as they did at the end of World War One.

"MI6 were pretty worried lest they might lose their money," explains Gill Bennett, former chief historian at the Foreign Office. "So if they had money from whatever source, in one pocket or another, they really wanted to hang on to it."

The fund seems to be largely the result of an influx of money at the end of World War Two (although the account may date back to MI6's first chief, Sir Mansfield Cumming). The mystery though is where the money came from.

The document records that it was the result of donations from what are called "well-wishers" of the service "including a particularly large sum from an American". Given the emergence of the Cold War and the fact that the future of America's own intelligence community looked uncertain in 1945, Dr Cormac believes it's possible a well-connected individual could have looked to Britain.

"Maybe this could come from an American who was concerned about future threats and wanted to make sure MI6 were adequately funded in case of emergency." The revelations from the document do not end there. The files show that in the six years after the civil servants found out about the "unofficial reserve" only a few thousand pounds was being withdrawn each year and it was eventually combined with (smaller) "official" reserves.

But the papers also say these reserves were vital in allowing MI6 to carry out a number of operations: it gave the service the latitude to do certain things knowing that it would not run out of money because it knew they had this extra cash in its back pocket.

One of the files contains a list of secret operations by codename. Scant, Scream, Sawdust, and Straggle are just four of them, all covert actions in the Middle East. Alongside is the amount spent on each in one year, for instance £200,000 on Sawdust (thought to be operations against President Nasser in Egypt).

Some of these codenames were known about in the past but others are unknown to historians who had studied this period. Helpfully, in some cases someone has actually written in pencil what these codenames refer to.

The operations range across the region, from Sudan to Oman to Lebanon. In some cases, these were propaganda operations but in others, such as Syria, there were plans (never implemented) to assassinate senior officials to bring about regime change.

What is most striking is that many of these operations were running in 1957, a year after Britain's botched invasion of Egypt to try to capture the Suez Canal after it had been nationalised by President Nasser.

"If you add all these up, what you discover is a big increase in the number of special operations post-Suez," says Stephen Dorril, author of *MI6: Fifty Years of Special Operations*, who reviewed the files. "There had been an idea that Suez dealt a major blow to Britain and MI6 but actually they came back."

"We see operations to subvert Nasser before and after Suez," concurs Dr Cormac.

So do these files show a rogue agency finally being brought to heel by Whitehall? Not quite: they do show MI6 owning up to the secret money and putting it under Treasury supervision.

But they also reveal that, for a few more years after that, the appetite for aggressive covert action was if anything increasing, and with the blessing of officials and very senior ministers.

Today, MI6 says it operates under the law and under careful political and financial controls. But if you are ever in a bank and hear someone ask to make a large withdrawal in the name of a Captain Theo Spencer, then let us know.

International Business Times 27/11/2017

<http://www.ibtimes.co.uk/declassified-cold-war-files-reveal-how-soviets-sneaked-behind-enemy-submarines-without-sonar-1648945>

Declassified Cold War files reveal how the Soviets sneaked up behind enemy submarines without sonar

Russian engineers developed SOKS, or a "wake object detection system", able to follow enemy submarines without using sonar.

The Soviets back in the day did not have access to advanced electronics during the Cold War era, which was why their submarine tech was thought to be sub-par. But that only tells you half the story.

Newly-declassified files report on how crafty Russian engineers at the time were able to continue to play cat-and-mouse games deep underwater by following the trail submarines left behind. In one incident, a Russian submarine reportedly followed an American sub undetected for six days.

Sonar was the go-to method for the Americans when it came to submarine tracking technology during the Cold War, which was something that the Russians did not have.

How then did a Soviet sub manage to not only detect an American one, but also stay undetected and follow it for six days? "System Obnaruzhenia Kilvaternovo Sleda" (SOKS) or "wake object detection system" was a technology that was developed in place of sonar by the Russians.

It was a non-acoustic method that the West ignored because they thought it was not as effective. In fact, one of the West's intelligence reports from the 1970s, which is quoted by *Popular Mechanics* (PM), says, "It is unlikely any of these methods will enable detection of submarines at long ranges."

SOKS, however, was successful because it reportedly tracked the wake, or disturbance, in the water that submarines left behind instead of trying to 'listen' to propellers or engines. They are easily noticeable as spikes and cup-like protrusions on the leading edge of Russian submarine fins, according to PM.

While the Russians had always claimed to be able to follow US submarines, it was usually dismissed as Russian propaganda, notes the report. Since research on this tech was classified by the US, even scientists were not aware of it.

Rumours were also inconsistent at the time. Without knowing how it worked, and if it worked at all, and what SOKS was looking for in the water, the Americans had no real way to counter it. It was believed that SOKS was used to read changes in water density, or detect radiation, or even used a laser sensor, but no one knew for sure.

The SOKS system was not one device. It was a mix of several instruments working together, at least that is what the declassified files say, reports PM. SOKS had one sensor to identify "activation radionuclides", a faint trail of radiation that nuclear plants inside subs left behind. The "gamma ray spectrometer" was another instrument that read trace amounts of radioactive elements in seawater. "The Soviets had reportedly had success detecting their own nuclear submarines [several words redacted] with such a system," the document says.

Apart from radioactive trails, chemical trails were also left behind by submarines, notes the PM report. Sacrificial anodes – that prevent corrosion on submarines – leave a trail of zinc, oxygen generators leave behind hydrogen, and flakes of nickel get chipped off from cooling pipes in subs. All of these chemicals can be traced back to a submarine, and SOKS was looking for all of them.

Nuclear reactors and submarine engines are also incredibly hot, so there is a hot trail to follow as well. Several thousand gallons of coolant is needed to keep a nuclear sub stable and the sea water that was pumped through to cool off the reactors and engines was often at least 10 degrees hotter than the surrounding water. This can be detected through an optical interference system, notes PM.

"A localisation system based on this technique, capable of detecting wakes up to several hours after the passage of a submarine, could theoretically be built now," says the declassified report, but how much of this tech the Russians had at the time has not been revealed.

SOKS was first introduced in 1969 and it is still found on Russian attack submarines like the Akula and Yasen class subs.

While sonar is the go-to in submarine detection tech, there are a host of different methods that militaries around the world are taking up. With updates in detection tech over the years, it can be said that complete stealth might not really be possible anymore.

Chinese scientists in June this year, made a breakthrough in quantum magnetometers. The strange thing about the whole situation was that the scientific publication was taken down after a few days and put away after a journalist pointed out the tech's possible military applications. Using this tech, it could be possible for the Chinese to completely lock down the South China Sea, says *New Scientist* (NS).

The device apparently worked like a magnetometer that looks for anomalies in the Earth's magnetic field in the ocean. A submarine is essentially a large piece of metal that interacts with the magnetic field and so they can be detected underwater. The drawback is that it has a limited range, so they are only used when an enemy has already been caught on sonar.

What the Chinese had stumbled upon is based on a superconducting quantum interference device (SQUID), which can widen and lengthen the reach of a basic magnetometer notes the NS report. Till now, SQUID devices were only useable in lab conditions and are overly sensitive, says the report. They were known to get affected by even solar activity, so they are not known to be able to shut out background noise. It is not clear if the Chinese team actually overcame this obstacle and after the study was taken offline, it might not ever be released to the world again.

Russia Today 28/11/2017

<https://www.rt.com/news/411164-russia-fighter-jet-us-spy-plane/>

Moscow scrambles fighter jet after detecting US spy plane approaching Russian border

Russia has scrambled a Su-30 fighter jet after detecting an American Poseidon reconnaissance aircraft over the Black Sea, according to a Defense Ministry statement. The US spy plane was approaching at high speed to the Russian border, it said.

The Russian fighter jet buzzed the US Navy reconnaissance plane at around 1pm local time (10:00 GMT) as it was flying over the neutral waters of the Black Sea, the ministry said.

"After moving closer, the Russian [Su-30] fighter jet flew over the object and visually identified it as an American reconnaissance aircraft Poseidon," the statement reads.

After the spy plane was intercepted by the Russian Air Force, the US aircraft changed course and flew away.

In October, the commander in charge of Russia's Air Force in the Southern Military District, General Viktor Sevostyanov, revealed that US military drones, primarily Global Hawks, conducted over 100 reconnaissance missions in the Black Sea region this year. The main routes of the spy planes lie near the Crimean Peninsula and the aircraft fly only 10-15km away from the border.

It is not the first time that Russia has had to scramble its aircraft in response to foreign planes detected near its borders. In June, a Russian Su-27 jet warded off a NATO F-16 fighter jet as it closed in on a plane carrying Russian Defense Minister Sergey Shoigu en route to the western Russian province of Kaliningrad. Prior to that, a US RC-135 spy plane flying over the Baltic Sea made a "provocative turn" toward a Russian Su-27 jet, which had been scrambled for an intercept mission.

Cbc News 28/11/2017

<http://www.cbc.ca/beta/news/technology/csis-court-stingray-imsi-catchers-1.4423871>

Spies more free to use cellphone surveillance tech without warrant, under court ruling

CSIS technique deemed 'narrowly targeted, highly accurate and minimally intrusive'

A federal court judge has ruled that Canada's domestic spy agency can continue to use contentious cellphone surveillance devices without a warrant, in some cases.

For several years, the Canadian Security Intelligence Service (CSIS) has used a device it calls a Cell Site Simulator (CSS) to collect information about cellphones and other cellular-capable devices — such as some laptops or tablets — during its national security investigations.

The devices are perhaps better known as IMSI Catchers or Stingrays, and pretend to be legitimate cellphone towers in order to collect information. Privacy advocates have long criticized the technology for how it indiscriminately gathers data, not merely on the subject of an investigation, but on all of the cellular devices in its operating radius.

According to CSIS, the technology is used for two reasons: to link a cellular device with the subject of an investigation whose identity is often — but not always — already known; and to pinpoint a subject's location. It is not used to capture communications.

But after mounting questions from federal court judges, who only learned the devices were being used by CSIS last year, a recent top-secret warrant application was used to weigh in on the lawfulness of the technique's use. CSIS said previously it sometimes applies for warrants to use such devices and sometimes, for reasons that remain unclear, it has not.

When does CSIS need a warrant?

In his decision, made public on Tuesday, Chief Justice Paul S. Crampton concluded that:

CSIS does not need a warrant to use the technology to link a cellular device with the subject of an investigation — in other words, by collecting the unique subscriber number (IMSI) and device number (IMEI).

CSIS does need a warrant if it wants to use the technology to determine the location of a device.

Use of the cellular surveillance technology was suspended in January while CSIS awaited the outcome of the case, but has since resumed, the agency said.

"For operational security reasons, CSIS is not in a position to further discuss how we use this technology," wrote CSIS spokesperson Tahera Mufti in an email, declining to answer how many times the technique has been used.

CSIS confirmed its use of the technology for the first time in May this year, after the RCMP publicly admitted that it had long used the technology, too.

Under Section 12 of the CSIS Act, the agency is allowed to collect, analyze and retain information without a warrant, as long as it is "strictly necessary" to defend against suspected threats to Canada.

However, Tamir Israel, a staff lawyer at the Canadian Internet Policy and Public Interest Clinic (CIPPIC) believes that, given the type of information CSIS is collecting and how the devices operate, a warrant should be required.

"The impact on non-direct targets can actually be, I think, much more serious than is presented here," said Israel, who co-authored a report on the use of IMSI catchers in Canada. He called the devices "inherently intrusive."

'Minimally intrusive,' court rules

For the case in question, CSIS was investigating the activities of a suspect in connection with what the court described as "Islamist terrorism."

At issue was whether CSIS' use of an IMSI catcher could be considered an unreasonable search, which is a violation of the Charter of Rights and Freedoms.

Crampton ruled that while the technology technically performs a search — collecting sensitive biographical information that could be used to infer the subject's habits — its use was "narrowly targeted, highly accurate and minimally intrusive."

He deemed the search reasonable, and therefore lawful, noting that any information collected incidentally — not relevant to the investigation — must be "quickly destroyed and not subject to any analysis whatsoever," within a period of days or weeks.

<http://www.financespotlight.com/u-s-charges-three-chinese-spies-with-espionage/>

U.S. Charges Three Chinese Spies with Espionage

A federal grand jury in Pittsburgh has indicted three Chinese citizens spying for China's Ministry of State Security (the intelligence and security agency responsible for counter-intelligence, foreign intelligence and political security) for allegedly stealing data from corporate networks in the United States.

The three Chinese spies — Wu Yingzhuo, Dong Hao and Xia Lei — work for a cyber security firm named Guangzhou Bo Yu Information Technology Company Ltd (Boyusec) based in Guangzhou, China.

U.S. intelligence sources said this firm is a front operation for the Ministry of State Security and the indicted individuals are intelligence agents or spies. Boyusec is also suspected as having ties to Chinese military hackers working for PLA (People's Liberation Army) Unit 61398.

PLA Unit 61398 is the Military Unit Cover Designator (MUCD) of a PLA advanced persistent threat unit responsible for Chinese computer hacking attacks against the West. It's based in Pudong, Shanghai.

The U.S. Department of Justice (DOJ) said the alleged hacking began in 2011 and continued until May 2017.

The attacks hit three companies: Moody's Analytics (a major economic analysis firm based in New York); German manufacturing and electronics conglomerate Siemens AG, and Trimble, Inc., a California-based firm that develops specialized GPS technology.

The Chinese spies specifically targeted economist Mark Zandi, who worked for Moody's Analytics. They gained access to Zandi's account in 2011 and began forwarding all of Zandi's emails to an account they controlled.

The hackers are also accused of stealing 407 gigabytes of data from Siemens' network in 2015. They also stole information on Trimble products designed to improve the location-tracking abilities of mobile devices "in a cost-effective way."

The indictment said Wu, Dong and Xia stole commercial secrets and sensitive employee data by sending spearphishing e-mails to employees with malicious attachments or links to malware that facilitated access to the recipient's computer.

The Chinese spies then installed other tools on the victims' computers, sometimes using intermediary servers known as "hop points."

DOJ officials indicated the U.S. will seek the arrest of the three Chinese nationals if they ever travel outside of China's borders.

"The Justice Department is committed to pursuing the arrest and prosecution of these hackers, no matter how long it takes, and we have a long memory," said Acting Assistant Attorney General for National Security Dana Boente.

The U.S., however, has no extradition treaty with China making an arrest of these spies highly improbable.

Belarus Digest 29/11/2017

<https://belarusdigest.com/story/foreign-spies-in-belarus-reality-and-speculation/>

Foreign spies in Belarus: reality and speculation

On 27 November, the Belarusian State Security Committee, otherwise known as the KGB, officially accused Ukrainian journalist Pavel Sharoiko of espionage. The Belarusian authorities claim that Sharoiko confessed to his guilt. Ukrainian state and security officials, on the other hand, acknowledge neither the alleged confession nor the accusation of espionage.

Until now, the most notorious spy scandal in Belarus was the detention of a Catholic priest, Uladzislaŭ Lazar in 2013. Lazar spent six months in a KGB prison, but was then released due to insufficient evidence. Security services had accused Lazar of involvement in activities amounting to espionage.

Spy scandals involving foreign citizens in Belarus have happened before. This time, however, the circumstances and timing surrounding the allegations against Sharoiko's are different. Many experts see the trace of Russian influence in Belarus's actions.

A Diplomatic conflict between Belarus and Ukraine?

Diplomatic tensions rose when Ukrainian authorities were informed on 25 October 2017 that the Belarusian KGB had detained Ukrainian journalist Pavel Sharoiko. The KGB suspects Sharoiko of spying. At first, Sharoiko denied the allegations and claimed to be a staff writer at the Belarusian office for Radio Ukraine, a Ukrainian national public broadcaster. Later, however, Sharoiko allegedly confessed to espionage, but refused to reveal further details. The Ukrainian Defense Ministry refuses to recognise Sharoiko's confession. Sharoiko can face anywhere from 7 to 15 years imprisonment for espionage in Belarus.

Belarus and Ukraine have discussed Sharoiko's case at the highest levels, which has given more resonance to this "spy scandal". On 24 November, Belarusian President Alexander Lukashenka commented on the journalist's detention. President Lukashenka told BELTA, a Belarusian news agency, that he had spoken with Ukrainian President Petro Poroshenko about Sharoiko's arrest and claims of espionage.

Lukashenka said he had known the details of the case from the very beginning. He assured the journalist from BELTA that the KGB had enough reasons to continue its investigation against Sharoiko. Later, Lukashenka let slip that both parties had agreed to keep information surrounding Sharoiko's case secret, but the Ukrainian side went public.

Tensions between the two countries rose further still, because of a new arrest. On 15 November, KGB agents detained Ukrainian Aleksandr Skiba, the director for the publicly listed Weighting Plant, a company that produces industrial filler materials. Skiba had come to Belarus for a business meeting at the Minsk Tractor Plant. The KGB has not disclosed any details, but according to some witnesses, the security services suspect Skiba of bribery. Even if investigators are reluctant to issue accusations yet, the detention of yet another Ukrainian citizen, this time from the business community, has added to the tensions between the two countries.

The case of Sharoiko, though, has become the central issue surrounding a recent decline in diplomatic relations between Belarus and Ukraine. Acting on information in Sharoiko's confession, Belarusian security services issued Igor Skvortsov, a counsellor for the Ukrainian Embassy in Belarus, with persona non grata status. In response, Ukraine expelled a Belarusian diplomat. Additionally, Ukrainian authorities still suspect that in September the Belarusian secret services together with Russian agents organised the kidnapping from Belarus to Russia of Ukrainian citizen Pavel Grib. 19-year-old Grib is accused of terrorism in Russia,

despite never having visited the country until his recent incarceration there. Until more details on these cases come to light, it remains unclear how much relations between Belarus and Ukraine will worsen.

The detention of foreigners in Belarus

The detention of foreigners in Belarus often gain so much media attention, because of the apparent severity of the Belarus's security and legal systems. For example, on 21 September 2017, Belarusian border guards detained Frenchman Jolan Viaud, who had a single bullet in his pocket, which he received from a friend in Warsaw.

Viaud has spent two months in the Homiel detention centre instead of going to Ukraine as he had planned. According to Belarusian law, he could have faced up to 7 years in prison. But on 20 November, the court acquitted him.

In summer 2015, a Polish paraglider spent more than a week in prison in Hrodna. He accidentally violated the state border by landing in Belarus. In the end, the authorities forced him to pay a fine and he received a ban on visits to Belarus for 5 years.

Other spy scandals have taken place in Belarus before Sharoiiko. One of them related to the detention of priest Uladzislau Lazar from Poland in 2013. After six months in a KGB jail, a court dismissed the priest, because investigators were unable to prove his guilt. The very first case of espionage in post-Soviet Belarus involved the First Secretary of the US Embassy in 1997, whom the KGB accused of supporting Belarusian opposition politicians, reports Radio Liberty, a US funded news portal.

Russian influence and the Sharoiiko case

Experts suspect that the detention of Sharoiiko might have links to Russia. Former KGB officer Valery Kostka told Radio Liberty that he believes the scandal is a fabrication. Only Russia benefits from the conflict between Belarus and Ukraine, says Kostka. The Sharoiiko case stands out from other spy scandals, because at present Belarus is improving its relations with the West.

Ukrainian Foreign Affairs Minister Pavlo Klimkin agrees with this version of events. Klimkin says the Russian influence is a likely factor. Another security expert, Yuriy Drakachuk, believes that the case of Sharoiiko is closely related to the Eastern Partnership Summit that took place on 24 November—a few days before the KGB's official accusations against the journalist. According to Drakachuk, it is likely that the Sharoiiko story is fake. Its true aim is to demonstrate Belarus's allegiance to Moscow.

In the past, spy scandals involving foreigners in Belarus have happened at very specific times. The first is at times of heightened political tensions with the West. The second is on the eve of an election campaign. Both are used to demonstrate the existence of an external threat, which the Belarusian regime may use to its advantage. In both cases, it casts Western governments as meddlers in Belarus's affairs and it reminds Belarusians of the stability the incumbent regime provides.

Balancing between Russia and Ukraine

In recent weeks, the KGB has been constructing a case of a wide, Ukrainian espionage network within Belarus. The KGB claims that Sharoiiko admitted creating the network, which includes Belarusian agents receiving salaries from Ukrainian intelligence agencies. The KGB have also detained one Belarusian, whom they suspect of treason and working under Sharoiiko. Ukraine denies the KGB's claims of a network of spies. It has requested the KGB show proof of the allegations.

Despite any destabilising effects a deep-cover Ukrainian spy network might bring, the Belarusian authorities appear to be keeping the country relatively stable. Relations with the West are also improving. Therefore, many Belarusian and Ukrainian experts explain the detention of the Ukrainian journalist Sharoiiko in terms of an attempt by Russia to spoil Belarusian-Ukrainian relations.

So far, Belarus has worked to position itself as a neutral country, able to have good relations with both Russia and Ukraine, and to even serve as a kind of mediator in the settlement of the military conflict between the two countries. Now, the challenge for the Belarusian regime will be to avoid souring ties with Ukraine, which might restrict Belarus's access to the Ukrainian market, and to show Putin continued loyalty, while at the same time not affecting the warming of relations with the West.

Defence One 05-12-2017

<http://www.defenseone.com/technology/2017/12/defense-contractor-northrop-grumman-testing-drones-deploy-bomb-shell/144330/>

Northrop Tests Spy Drones That Deploy in a Fake Bomb

The disposable Remedy is intended to drop from a fighter jet and fly slow enough to avoid radar.

The future of aerial drones behind enemy lines won't necessarily be big unmanned aircraft like the Reaper taking off from runways and flying hundreds of miles into the teeth of enemy air defenses. Instead, defense contractor Northrop Grumman has developed a small, disposable drone that fits inside a shell that looks like a cluster bomb. The idea: When an F/A-18 drops the fake munition, the drone would pop out, unfold its wings and fly into enemy territory, undetected, to collect data on enemy positions.

Northrop conducted a flight test of the new drone, dubbed Remedy, on Oct. 26. The demonstration showed that the unmanned plane could share sensor and intelligence data with manned aircraft. The next step will be making sure it can unfold in the air and take flight. Engineers anticipate completing the research and development in 2019. The Office of Naval Research is a partner on the program, as is a small engineering outfit called VX Aerospace.

"The issue with unmanned airframes is, for all their advantages, how do you get something this small 400, 700 miles away from an aircraft carrier?" John "JJ" Thompson, the campaign director for Northrop's airborne C4ISR division, told reporters at one of the company's research and construction facilities near Baltimore.

Once the capsule is released, the drone would be pulled out by a parachute, unfold its 12-foot wings, and power up a small, wooden propeller. Remedy has a 10-hour flight time, at 69 knots.

That size is rather small and that pace incredibly slow for military aircraft, which is part of the point, said Thompson. The plane's slowness makes it look like a bird to many types of military radar. "When you think about how military [radar] systems are designed, they are designed to shoot down tactical jets. You build into radars gates that take away things like birds," he said. Case in point, the lawnmower engine-powered gyrocopter that Douglas Hughes, a Florida man used in 2015 to fly from Pennsylvania to Capitol Hill, all while evading detection by a sophisticated, expensive military blimp — technically, an aerostat — outfitted with radars to detect missiles and enemy aircraft. The Northrop drone is supposed to fly high enough to avoid enemies with small weapons, but low and slow enough to evade radar.

The research program has much in common with the Gremlins project, a DARPA effort to build small drones that can be launched and retrieved in mid-air. It's all part of the military's push for more human-machine teaming touted by both former Defense Secretary Ash Carter and his successor, James Mattis. The concept emphasizes the use of robotics and artificial intelligence, mostly in support of manned jets and human operators.

In theory, a Remedy could be outfitted with weapons and turned into a slow but highly maneuverable missile. But the military's interest right now is in equipping it with sensors and cameras for intelligence and reconnaissance, said Thompson.

"We'll send in these as a swarm. They'll begin to do search patterns for where we believe — in this general area is — this object that we are searching for. Could be [searching for] theater ballistic missile, long-range engagement radar, short-range engagement radar," he said.

The Telegraph 10/12/2017

<http://www.telegraph.co.uk/news/2017/12/10/germany-accuses-china-setting-fake-social-media-accounts-lure/>

Germany accuses China of setting up fake social media accounts to lure top officials

Germany's intelligence service warned on Sunday that China is using fake profiles on social networks to gather personal information from politicians and other high ranking officials.

More than 10,000 Germans were contacted by fake profiles on the social networking site LinkedIn during a nine months investigation into the large-scale security breach, Germany's domestic intelligence agency, known as BfV, said.

The fake profiles were disguised as headhunters, consultants, or scholars with names "Rachel Li" and "Alex Li", and attempted to trick people into "connecting" with them in order to extract information on people's habits, hobbies and political interests, according to the intelligence agency.

"Chinese intelligence services are active on networks like LinkedIn and have been trying for a while to extract information and find intelligence sources in this way," a spokesperson said.

Many of the profiles deliberately used photos of stylish and attractive men and women in order to encourage people to befriend them. One photo was even allegedly taken straight out of an online fashion catalogue, Reuters reported.

The fake profiles also falsely claimed to have jobs at organisations including RiseHR, a Dutch human resources firm, and the Center for Sino-Europe Development Studies, an academic think tank.

Many of those targeted were connected to senior diplomats and politicians across Europe, according to Reuters. The BfV said a "large number" of fake profiles and targeted people may yet to be identified and called on German citizens to report suspect social media profiles.

The agency also warned German public officials to be wary about leaking valuable personal information through social media.

"This is a broad-based attempt to infiltrate in particular parliaments, ministries and government agencies," said Hans-Georg Maassen, the head of BfV.

Concerns over the covert tactics allegedly used by Chinese intelligence agents to secure protected data and personal information have grown in Western intelligence circles in recent years.

Earlier this year it was revealed that Chinese-based hackers had targeted UK firms to steal sensitive data including personal information and intellectual property.

A report authored by the National Cyber Security Centre (NCSC) and cyber units at defence group BAE systems and accountancy firm PwC found a China-based cyber gang, named APT10, used customised malware and "spear phishing" to target an "unprecedented web" of victims.

In July, the Henry Jackson Society, a think tank, warned the personal data of thousands of British citizens could be trawled through by spies in Beijing as the UK sells off sensitive high-tech industry to Chinese investors.

IEEE Spectrum 13/12/2017

<https://spectrum.ieee.org/the-human-os/biomedical/devices/acoustic-weapon-deployed-in-cuba-not-likely>

Was a Sonic Weapon Deployed in Cuba

Hearing loss, dizziness, sleep and vision problems, tinnitus, headaches, fatigue and now brain damage—these are the symptoms suffered by two dozen US and Canadian diplomats covertly attacked over the past year while serving in Cuba. US officials initially posited that the diplomats were victims of some sort of sonic weapon, but acoustics experts say that's nearly impossible.

Details of the attacks have slowly become public over the last few months through a combination of media reports and announcements from US officials. Many details are still unclear. Here, we stitch together the information available, and explain why the diplomats' health problems almost certainly couldn't have been caused by an acoustic weapon.

The attacks began in late 2016 when several people serving at the US Embassy in Havana began suffering unexplained health problems, according to the AP, which first reported the story in August this year. US officials spoke to the AP on the condition of anonymity and attributed the symptoms to a covert sonic weapon. Several Canadian diplomats also experienced symptoms.

The US Department of State in September publicly confirmed the attacks, but federal spokespeople avoided speculation about who or what caused them. The diplomats' symptoms began while they were in their residences or in hotels, the feds confirmed. Onset of the symptoms in some cases were accompanied by audible, agonizing sounds, and in other cases by no sound, according to media reports.

Health problems for the victims then ensued, and included hearing loss, dizziness, balance problems, difficulty sleeping, ear-ringing (tinnitus), headaches, fatigue, and "cognitive issues," according to the State Department. The American Foreign Service Association, after meeting with some of the victims, added to that list: cognitive disruption, mild traumatic brain injury, and brain swelling.

US officials have called the attacks "ongoing" and in October said that two more US government personnel had experienced symptoms, bringing the total number of victims to 24. The State Department has since reduced its personnel in Cuba and warned US citizens not to travel there. Cuba has denied involvement in the attacks, and put forward its own theories.

Then last week, the AP reported that “medical testing” revealed that the embassy workers had “developed changes to the white matter tracts” of their brains. The organization said it obtained the information from US officials who asked to remain anonymous.

White matter tracts are a type of tissue in the brain that coordinates communication and serves as connections between brain cells, or grey matter. The AP story did not describe what kind of testing or brain scans were performed, nor how the doctors know that the white matter changes were caused by the attacks.

Regardless, it is highly unlikely that a covert sonic weapon could cause the range of health problems experienced by the diplomats, say acoustic experts contacted by IEEE Spectrum. “It’s not that easy to damage the brain with acoustics,” says Elisa Konofagou, a bioengineer at Columbia University in New York who has studied the effects of ultrasound on mouse and monkey brains, and was not involved in the Cuba investigation.

An ultrasonic device, which propagates acoustic waves in frequencies above the audible range for humans, would have to be in close contact with the body in order to deliver waves below the skin’s surface. “If you take an [ultrasound] transducer and shoot it through the air, virtually nothing will propagate,” no matter how powerful the transducer is, says Konofagou.

And even if someone somehow put an ultrasound device in contact with the victims’ heads without them knowing it, it’s hard to believe that such a device would target only white matter tracts, she says. “Why is the rest of the brain intact? Why would [the weapon] be so selective? That doesn’t make sense to me,” she says.

Konofagou and her team have been researching ways to deliver drugs to the brain using gas bubbles activated by ultrasound. Through that work, they have identified a range of intensities that are safe on mouse and monkey brains and then studied what happens when they use intensities outside that range. They have found that if there’s damage, it’s usually to grey matter, and rarely if ever to white matter, she says.

On the other side, acoustic waves from an infrasonic device, which would have frequencies below the audible range for humans, can travel long distances. Such devices don’t have to be in direct contact with the body. But “the wavelengths are huge, so it would be extremely difficult to focus it on the brain only,” or even on one particular person from a long distance, Konofagou says.

And besides, in order to generate a lot of power, or decibels, an infrasonic device would have to be unrealistically large, according to F. Joseph Pompei, founder of directional sound company Holosonics, who spoke with the AP and Snopes.com on the matter. Covertly deploying such a hunk of machinery would be tough. Plus, it’s unlikely that it could have any significant health effect on the human body, says Jürgen Altmann, a physicist at Technische Universität Dortmund, in Germany, who has studied the history [PDF] and the potential for such devices, and surveyed the literature on health effects.

Not that militaries globally haven’t tried to build such weapons. “Development and testing [of acoustic weapons] has gone on in several directions, but to my knowledge have not resulted in actual devices deployed,” says Altmann.

Konofagou hypothesizes that whatever did happen to the Cuba victims, it started with the white matter, and that affected the victims in different ways due to their varying physiology, thus producing the wide range of symptoms. “The fact that it was so highly targeted, it has to be something more specific to the anatomy and the chemistry,” of the brain, she says.

The Guardian 21/12/2017

<https://www.theguardian.com/world/2017/dec/21/ukrainian-interpreter-who-visited-theresa-may-arrested-russian-spying-charges>

Ukrainian interpreter who visited May arrested on Russian spying charges

Stanislav Yezhov had regular access to insider information and travelled on high-profile trips to London and Washington

An interpreter for Ukraine’s prime minister who was photographed with Theresa May inside Downing Street has been arrested on suspicion of working as a Russian spy.

Ukraine’s SBU security service arrested Stanislav Yezhov on Wednesday evening in the capital, Kiev. Video showed two officers leading him away. Yezhov had worked “for the enemy state [Russia] for a long time,” the prime minister, Volodymyr Groysman, declared on his Facebook page.

The arrest is embarrassing for the Ukrainian authorities. Yezhov was based inside the cabinet of ministers and had regular high-level access to sensitive information. He travelled on high-profile trips to the west, including to London and Washington.

The alleged Russian spy visited Downing Street in July when Groysman held talks with the prime minister.

In June 2016 he visited the White House and interpreted for Groysman during a meeting with the then US vice-president, Joe Biden.

The SBU said in a statement that Russian intelligence had recruited Yezhov during a “long-term foreign mission”. It supplied him with “special equipment” which was used to collect information about the “activities of [Ukrainian] government structures”.

Yezhov allegedly sent data back to his Moscow handles via electronic communication channels. It was unclear how long this lasted or how exactly the channels functioned.

Tensions between Kiev and Moscow remain high more than three years after the Russian president, Vladimir Putin, seized Crimea and stirred up a conflict in eastern Ukraine, backing and arming pro-Russia rebels.

The war put a stop to cooperation between Ukrainian and Russia intelligence agencies. They had traditionally worked closely together, with strong personal ties between senior officers from both countries who had during Soviet times typically attended KGB training academies together.

Yezhov was in custody on Thursday. His workplace and home were being searched, the SBU said, and he was likely to face charges of state treason.

The South China Morning Post 12/03/2015 (Not A New Article But One Of Interest.)

<http://www.scmp.com/lifestyle/article/1735143/dead-drop-usb-drives-new-trend-art-spying>

The dead drop: USB drives a new trend in the art of spying

SCMP’s espionage and covert ops expert Charley Lanyon risks it all to uncover the truth

There was a time when Hong Kong was a hotbed of spies: during the Cold War undercover agents from America, China, Britain and Russia were active here. Those days are over, but for Hong Kong’s espionage enthusiasts there is a new reason for some old-school spycraft: art.

Over the past five years, Berlin-based artist Aram Bartholl has reinvented the dead drop, for an ongoing global art project.

On his website, Bartholl describes the project as an “anonymous, offline, peer to peer file-sharing network in public space,” and explains that he started it when he was artist in residence at the art and technology centre Eyebeam in Brooklyn, New York in 2010. He hid five USB thumb drives around New York City, often embedded in concrete walls or curbs with just the tip sticking out. The idea was for people to plug the bit of the USB sticking out of the wall into their laptops and find... well, just about anything. Each drive started out with just an explanation about the project, encouraging people to take or leave whatever files they chose. He also posted instructions on how to install their own dead drops on his website. The rest was up to the public, and they took to it avidly.

During the golden age of spying, the dead drop was an invaluable tool: a letter, picture or microfilm would be deposited in a secret hiding place — often a hollow rock, or false bit of brick — for another spy to pick up. That way information could be passed between agents without them ever having to meet in person and endanger their secret identities. In the era of email encryption, and satellite communication, it is doubtful that a dead drop is still a part of a modern spy’s repertoire, but thanks to Bartholl today, there are more than 1,500 active drops across the globe, on every continent save Antarctica.

Each drop is catalogued in an online database, giving its date of installation, size and location coordinates. Imagine our excitement when we saw, ninth on the list and installed on March 6, Hong Kong’s very own dead drop, located on the first floor of the Ho Sin Hang Engineering Building at the Chinese University in Sha Tin. We went searching for it and were able to find it without too much trouble.

The Sha Tin drop is a bit different from the typical USB stick drops. It is an online dead drop: once you get in range you are able to join a small wi-fi network and get access to the drop. The site you see is pirate themed, with an explanation about how the project works, a chat area, an online forum and a place to upload and download files.

The project has courted controversy after instructions for how to manufacture methamphetamines, and schematics for making a bomb were found on drops in Europe. We were excited to see what kind of forbidden information Hongkongers were keen to share and, while there were certainly no bomb instructions, the contents were politically provocative: a photograph of the Lennon wall at the height of the Occupy Central protests, and a full length digital copy of Under the Dome, former TV presenter Chai Jing’s documentary about pollution in China, which was recently removed from Chinese video sites.

We uploaded a few surprises ourselves but to reveal them here would hardly be good spying.

An interesting obituary sent in by MaleAnon. Note mention of ducting as an example of hearing Chicago’s taxis.

From The Daily Telegraph 6 November.

Anne Glyn-Jones, who has died aged 94, was a Wren telegraphist in the highly secretive Y-service, which listened to enemy wireless transmissions from ships and submarines in order to triangulate their bearings and thus locate them, as well as transcribing German Morse messages which were the raw material upon which the decoders at Bletchley Park depended.

Born on February 25 1923, Anne Glyn-Jones was the eldest of the three daughters of a judge of the High Court, Sir Hildreth Glyn-Jones.

Aged seven she had run away to sea, but, having eaten all the cakes she had taken for the journey, she realised that she did not know where the sea was, and, on hearing the noise of children leaving school to go home for their teas, became homesick. Once home she was disappointed that nobody even asked her where she had been.

Her bedtime reading was of nautical adventurers and Captain Scott was her hero. When war broke out she determined to join the Wrens, but being under-age needed parental approval, which her father gave on condition that she stayed at school until she passed the Oxbridge entrance exams.

She did so and received an offer from Lady Margaret Hall, Oxford, but still chose to enlist and joined the WRNS in January 1942, just two weeks after leaving school.

Anne Glyn-Jones was shocked when she realised the significance of her job. “When I applied to be a telegraphist, I saw myself as a sort of 999 telephone operator,” she would later write, “taking pleas for help and sending ships to the rescue. Instead, I was to listen to some German sailor then do my best to get him killed. I felt no animosity whatever toward German sailors with their blue eyes and caps with ribbons hanging down the back. I felt as if I had been appointed a member of an execution squad.”

However, she changed her mind after reading in The Daily Telegraph of June 25 1942 the first report of the Nazi regime’s systematic extermination of the Jews: “It had to be stopped, no matter what.”

The story of her chaotic initial training at HMS Drake in Plymouth and her hugger-mugger recruitment into the Y-service at HMS Flowerdown near Winchester is wittily and perceptively told in her memoir Morse Code Wrens of Station X (2017).

Anne Glyn-Jones worked for several months at a Y-service listening post at Scarborough before being sent to Gibraltar. Arriving in 1943, she excitedly thought that the chances of finding romance, where there were 200 servicemen to each Wren, were promising, but she soon found herself exhausted from the effort of boosting garrison morale and nursing bruised feet from too many dances.

British servicemen treated the women with respect, but the Americans “assumed our work at code books and wireless sets was a blind for our main usefulness”. Soon, she and her girlfriends decided that “on the whole we hated men. We should like to go out for the evening for a quiet, relaxed, uncomplicated visit to the cinema with a girlfriend.”

From a hut high on the Rock, Anne Glyn-Jones and her fellow Wrens kept continuous watch, searching the air waves and straining for strands of Morse code amid a cacophony of noise, which could include the frantic sounds of sinking ships or the freak reception of the calls of Chicago taxis.

They learnt to recognise German operators’ “chat” [preliminary calls], and when they heard this they were often prepared to jot down messages from German U-boat headquarters before the intended recipients had acknowledged that they were ready to receive. The results were sent to a place known to the Wrens only as Station X, and they were unaware that this was at Bletchley Park.

The girls were highly trained and Anne Glyn-Jones’ book, written when she was in her nineties, is sharp on the technical aspects of her job, as well as on period detail such as the spread made from Marmite, parsley and white sauce to relieve the monotony of beetroot sandwiches made with slices of grey National Loaf.

Clever young women like Anne Glyn-Jones and her colleagues played a vital though unsung role in the war, and she was unimpressed by the certificate the British government eventually sent her in 2009 in thanks for her service: “For 30p I found a suitable frame in a local charity shop and hung it in the downstairs loo.”

<http://www.telegraph.co.uk/obituaries/2017/11/05/anne-glyn-jones-wren-telegraphist-turned-writer-obituary/>

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January 2018

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Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...
		x	x				0315		E11	03	5779 25#	5779 25#
x	x	x	x	x	x	x	0400		V13	0	15388	15388
x	x	x	x	x			0400		S06	01A	15721 480	15721 480
x	x	x	x	x	x	x	0440 (var)		HM02	01C	7351	
x							0450		E11	03	4909 41#	4909 41#
	x			x			0455		S11A	03	4828 32#	4828 32#
x	x	x	x	x	x	x	0500		V13	0	11430	11430
x		x		x		x	0500		HM01	18	5855	5855
	x		x		x		0500		HM01	18	11462	11462
x	x	x	x	x			0500		M14	01A	18041 952	18041 952
x			x				0530		E11	03	6849 64#	6849 64#
			x				0530/0550/0610		E07A	01B	5111/ 5811/ 6911 189	5111/ 5811/ 6911 189
x	x	x	x	x	x	x	0540 (var)		HM02	01C	4761	4761
x	x	x	x	x	x	x	0600		V13	0	11430	11430
x				x			0600		E11	03	9200 18#	9200 18#
x		x		x		x	0600		HM01	18	10345	10345
	x		x		x		0600		HM01	18	14375	14375
	x						0600/0610		S06S	01A	16145/14240 438	16145/14240 438
					x		0600/0620/0640		M12	01B	5839/ 7439/ 9239 842	7637/ 9137/10237 612
x		x					0600/0620/0640		XPAC	01B		
						x	0600/0700		M14	01A	5947/ 6767 382	5947/ 6767 382
			x	x			0600/0700	1/3	E06	01B	13960/16350 139	17470/20085 702
						x	0630/0640		S06S	01A	13470/16515 524	13470/16515 524
x		x					0640		E11	03	11450 94#	11450 94#
	x		x				0645		E11	03	7840 51#	7840 51#
x		x		x		x	0657		HM01	18	9330	9330
	x		x		x		0657		HM01	18	13435	13435
x	x	x	x	x	x	x	0700		V13	0	15250	15250
						x	0700		M01	01B	5465 197	5465 197
	x						0700/0710 (15)		S06S	01A	5250/ 6320 374	5250/ 6320 374
					x	x	0700/0720/0740		E07	01B	8123/ 9323/10423 134	10112/11112/12112 111
x		x					0700/0720/0740		XPAC	01B	9108/10908/12208	11409/13509/14609
x		x					0700/0720/0740		XPA2	01B		
	x			x			0700/0720/0740		XPA2t	01B	13472/14772/16272	14558/15958/17458
	x			x			0710		E11	03	9130 63#	9130 63#

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...
					x	x	0710		E11	03	4505 49#	4505 49#
	x						0730/0740		S06S	01A	7410/11532 427	7410/11532 427
x							0745		E11	03	10213 26#	10213 26#
		x		x			0745		E11	03	17378 34#	17378 34#
x		x		x		x	0757		HM01	18	9065	9065
	x		x		x		0757		HM01	18	11365	11365
x	x	x	x	x	x	x	0800		V13	0	15250	15250
x							0800	1/3	G06	01A	5320 329	5320 329
			x				0800/0810		E17Z	01A	11170, 9820 674	11170, 9820 674
	x						0800/0810		S06S	01A	11945/13195 352	11945/13195 352
					x		0800/0810	1	S06S	01A	8680/ 8260 254	8680/ 8260 254
x		x					0800/0820/0840		XPA2	01B	search	search
					x		0800/0900		M14	01A	5430/ 5561 171	5430/ 5561 171
					x	x	0805		E11	03	7377 31#	7377 31#
x			x				0820		E11	03	7984 43#	7984 43#
	x	x					0820		E11	03	12202 13#	12202 13#
		x					0820/0830		S06S	01A	8417/ 9262 471	8417/ 9262 471
x							0830/0840		S06S	01A	8057/ 8530 371	8057/ 8530 371
		x					0830/0840		S06S	01A	7062/10532 464	7062/10532 464
		x					0830/0840		S06S	01A	11535/11830 745	11535/11830 745
				x			0830/0840		S06S	01A	x11945/13195 352, search	x11945/13195 352, search
			x	x			0830/0930		S06	01A	16243/13469 842	17440/15614 842
	x		x				0845		E11	03	11104 15#	11104 15#
x		x		x		x	0857		HM01	18	9240	9240
	x		x		x		0857		HM01	18	11462	11462
x		x					0900		E11	03	9446 53#	9446 53#
x							0900/0910		S06S	01A	14675/12830 872	14675/12830 872
				x			0900/0910		S06S	01A	5765/ 6315 624	5765/ 6315 624
					x		0900/0920/0940		E07A	01B	11123/12123/13423 114	11053/12153/13553 015

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...
	x			x			0915		S11A	03	7504 48#	7504 48#
x	x	x	x	x	x	x	0930		M14	01A	17458 617, only 10.,	17458 617, only 10.,
		x	x				0930		E11	03	8180 27#	8180 27#
			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		x		x		x	0957		HM01	18	5855/ 9155	5855/ 9155
	x		x		x		0957		HM01	18	12180	12180
	x			x			1000		E11	03	8800 30#	8800 30#
	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	11559 47#	11559 47#
	x			x			1020		S11A	03	7840 42#	7840 42#
	x						1045		E11	03	12153 57#	12153 57#
	x						1100/1110		S06S	01A	5035/5975 754	5035/5975 754
	x			x			1100/1120/1140		E07	01B	13523/12123/10623 516	16161/14661/13361 163
x	x	x	x	x	x	x	1200		V13	0	9276	9276
		x					1200/1300	?	G06	01A	4570/ 4010 563, check	4570/ 4010 563
			x				1200/1210		S06S	01A	12155/10920 425	12155/10920 425
	x	x					1205		E11	03	7317 46#	7317 46#
x				x			1225		E11	03	20167 52#	20167 52#
x	x	x	x	x	x	x	1300		V13	0	9276	9276
			x				1300	1/3	G06	01A	4460 329	4460 329
			x		x		1300		E11	03	8680 58#	8680 58#
x							1300/1310		S06S	01A	8420/10635 831	8420/10635 831
	x					x	1300/1320/1340		XPA2m	01B	16138/14438/13438	
			x		x		1310/1330/1350		M12	01B	7692/ 6792/ 678, search	9162/ 8062/ 7462 104
	x				x		1345		E11	03	14666 91#	14666 91#
x	x	x	x	x	x	x	1400		M08A	18	8096	8096
x		x					1400/1420/1440		M12	01B	10547/ 9047/ 7547 505	13362/11562/10362 353
				x	x		1400/1420/1440		XPA2r	01B	16167/14664/13924	18667/17419/16212

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...
					x		1500		M01	14	5810 197	5810 197
	x						1500/1510		S06S	01A	6845/ 9170 537	6845/ 9170 537
	x					x	1500/1520/1540		XPA2m	01B		16338/14538/13538
			x				1530		E11	03	5409 26#	5409 26#
		x			x		1540		S11A	03	10728 56#	10728 56#
x	x	x	x	x	x	x	1557		HM01	18	11435	11435
	x	x					1600	1/3	M14		4030 273, check	4030 273
	x					x	1605		E11	03	4505 23#	4505 23#
				x			1610/1630/1650		E07A	01B	7632/ 6832/ 5832 688	9347/ 8147/ 6847 318
		x				x	1625		E11	03	10448 97#	10448 97#
	x		x				1645		E11	03	11493 33#	11493 33#
				x		x	1650		E11	03	16335 92#	16335 92#
x							1700/1800	1/2	G06	01A	3645/ 4559 563, check	3645/ 4559 563
x	x	x	x	x	x	x	1657		HM01	18	11530	11530
x		x					1700/1720/1740		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
			x				1700/1720/1740		M12	01B	14377/13461/12114 317	14377/13461/12114 317
				x			1700/1800	1/3	M14	01A	5374/ 4975 382	5374/ 4975 382
		x			x		1705		E11	03	9443 39#	9443 39#
		x			x		1730		E11	03	8545 40#	8545 40#
			x				1730		E11	03	5779 41#	5779 41#
x						x	1745		E11	03	13470 24#	13470 24#
	x		x				1800		M01	14	5320 197	5320 197
x	x	x	x	x	x	x	1757		HM01	18	11635	11635
		x				x	1800/1820/1840		E07	01B	8194/ 6794/ 5294 172	10219/ 9119/ 7519 215
		x					1800/1820/1840		M12	01B	9176/ 7931/ 6904 257	9176/ 7931/ 6904 257
					x		1810/1820/1830		M42C	01A	7684/ 5387/ 4572	9153/ 7641/ 5251
	x						1820	2/4	M14	01A	4636 186	4636 186
			x				1830	2/4	G06	01A	4519 271	4519 271
		x			x		1850		S11A	03	11486 28#	11486 28#
		x					1900/1920/1940		M12	01B	8047/ 6802/ 5788 463	8047/ 6802/ 5788 463

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...
				x			1900/2000	1/3	S06	01A		7607/ 5412 514
				x		x	1910		E11	03	10487 61#	10487 61#
x							1910		M01B	14	2435, 3519 853	2435, 3519 853
		x					1920	2/4	M14	01A	4761 748	4761 748
	x		x				1925		E11	03	12067 55#	12067 55#
				x			1930	2/4	G06	01A	4792 436	4792 436
			x				1932		M01B	14	2470, 3545 910	2470, 3545 910
	x			x			1940/1950/2000	1	M42C	01A	7629/ 6783/ 4030	8156/ 6844/ 4527
		x		x			1955		S11A	03	5815 37#	5815 37#
				x			2000		E11	03	6304 57#	6304 57#
	x		x				2000		M01	14	4490 197	4490 197
x	x	x	x	x	x	x	2000		M08A/ V02A	18	7554	7554
x		x					2000/2020/2040		E07	01B	6776/ 5767/ 5067 770	8157/ 6857/ 5257 182
				x			2000/2100	1/3	S06	01A	7607/ 5412 514	
					x		2000/2100	1/3	S06	01A	4012/ 3408 913	4012/ 3408 913
				x			2002		M01B	14	2655, 3195 866	2655, 3195 866
					x	x	2005		E11	03	11107 36#	11107 36#

M01 FREQUENCY LIST

Frequencies may vary by a few kHz

JAN FEB NOV DEC

M01/1

197

DAY	TIME UTC	FREQ kHz
TUE / THU	1800	5320
TUE / THU	2000	4490
SAT	1500	5810
SUN	0700	5465

MAR APRIL SEPT OCT

M01/2

463

DAY	TIME UTC	FREQ kHz
TUE / THU	1800	5475
TUE / THU	2000	5020
SAT	1500	6260
SUN	0700	6510

MAY JUNE JULY AUG

M01/3

025

DAY	TIME UTC	FREQ kHz
TUE / THU	1800	5280
TUE / THU	2000	4905
SAT	1500	6435
SUN	0700	6780

[illegible][illegible]

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
July													
0500	0520	0540	9217	10617	12217	262						X	
1310	1330	1350	13926	12126	10926	919				X		X	
1400	1420	1440	15821	13921	12221	892	X		X				
1800	1820	1840	9176	7931	6904	257			X				
1900	1920	1940	8047	6802	5788	463			X				
2100	2120	2140	9379	7979	6879	398			X				
2110	2130	2150	14869	13569	12179	851			X			X	
Aug													
0500	0520	0540	9167	10267	11567	125						X	
1310	1330	1350	14468	13568	12178	451				X		X	
1400	1420	1440	15983	14683	13383	963	X		X				
1800	1820	1840	9176	7931	6904	257			X				
1900	1920	1940	8047	6802	5788	463			X				
2100	2120	2140	8123	6923	5823	198			X				
2110	2130	2150	13369	12179	10469	314			X			X	
Sep													
0500	0520	0540	8176	9376	- - -	134						X	
1310	1330	1350	13873	13373	11473	834				X		X	
1400	1420	1440	16348	14848	13448	384	X		X				
1800	1820	1840	9176	7931	6904	257			X				
1900	1920	1940	8047	6802	5788	463			X				
2100	2120	2140	6793	5893	4593	785			X				

Time UTC			Freq kHz			ID	M	T	W	T	F	S	S
Oct													
0500	0520	0540	6832	7932		892						X	
1310	1330	1350	12214	10814	9214	282				X		X	
1400	1420	1440	18639	17439	15839	648	X		X				
1800	1820	1840	9176	7931	6904	257			X				
1900	1920	1940	8047	6802	5788	463			X				
2100	2120	2140	5814	5214	4614	826			X				
Nov													
0600	0620	0640	7637	9137	10237	612						X	
1310	1330	1350	9162	8062	- - -	104				X		X	
1400	1420	1440	16296	14796	13396	273	X		X				
1800	1820	1840	9176	7931	6904	257			X				
1900	1920	1940	8047	6802	5788	463			X				
2200	2220	2240	5429	4629	4029	460			X				
Dec													
0600	0620	0640	5784	7584	9184	751						X	
1310	1330	1350	7741	6841	5741	787				X		X	
1400	1420	1440	13371	11571	10271	352	X		X				
1800	1820	1840	9176	7931	6904	257			X				
1900	1920	1940	8047	6802	5788	463			X				
2200	2220	2240	5312	4512	4012	350			X				

The yearly repeats were severely reduced from November 2016 by changes to many of the regular schedules. In 2017, those changes became the regular scheds & a number of new scheds appeared, or were found, over the year.

This is promising. 2016 saw the lowest activity from M12 we had seen for many years, although activity has improved considerably - but has still not reached that seen in previous years.

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...	Nov kHz, ID, ...	Dec kHz, ID, ...	Remarks
		x	x				0315		E11	03	5779 25#	5779 25#	5779 25#	5779 25#	since 01/14, last log 11/17
x							0450		E11	03	4909 41#	4909 41#	4909 41#	4909 41#	since 02/10, last log 11/17 2nd transmission Thu 1730z
	x			x			0455		S11A	03	4828 32#	4828 32#	4828 32#	4828 32#	since 09/14, last log 11/17
x			x				0530		E11	03	6849 64#	6849 64#	6849 64#	6849 64#	since 05/16, last log 10/17
x				x			0600		E11	03	9200 18#	9200 18#	9200 18#	9200 18#	since 07/15, last log 12/17
x		x					0640		E11	03	11450 94#	11450 94#	11450 94#	11450 94#	since 07/17, last log 12/17
	x		x				0645		E11	03	7840 51#	7840 51#	7840 51#	7840 51#	since 07/09, last log 11/17
	x			x			0710		E11	03	9130 63#	9130 63#	9130 63#	9130 63#	since 02/11, last log 12/17
					x	x	0710		E11	03	4505 49#	4505 49#	4505 49#	4505 49#	since 08/17, last log 12/17 07/15-04/17 Thu/Sat
x							0745		E11	03	10213 26#	10213 26#	10213 26#	10213 26#	since 03/14, last log 12/17 2nd transmission Thu 1530z
		x		x			0745		E11	03	17378 34#	17378 34#	17378 34#	17378 34#	since 06/17, last log 12/17
					x	x	0805		E11	03	7377 31#	7377 31#	7377 31#	7377 31#	since 07/14, last log 12/17
x			x				0820		E11	03	7984 43#	7984 43#	7984 43#	7984 43#	since 10/09, last log 12/17
	x	x					0820		E11	03	12202 13#	12202 13#	12202 13#	12202 13#	since 08/13, last log 12/17
	x		x				0845		E11	03	11104 15#	11104 15#	11104 15#	11104 15#	since 07/17, last log 12/17
x		x					0900		E11	03	9446 53#	9446 53#	9446 53#	9446 53#	since 10/05, last log 12/17
	x			x			0915		S11A	03	7504 48#	7504 48#	7504 48#	7504 48#	since 01/10, last log 12/17
		x	x				0930		E11	03	8180 27#	8180 27#	8180 27#	8180 27#	since 02/14, last log 12/17
	x			x			1000		E11	03	8800 30#	8800 30#	8800 30#	8800 30#	since 11/16, last log 12/17
x			x				1015		S11A	03	11559 47#	11559 47#	11559 47#	11559 47#	since 04/10, last log 12/17
	x			x			1020		S11A	03	7840 42#	7840 42#	7840 42#	7840 42#	since 02/10, last log 12/17
	x						1045		E11	03	12153 57#	12153 57#	12153 57#	12153 57#	since 01/12, last log 12/17 2nd transmission Fri 2000z
	x	x					1205		E11	03	7317 46#	7317 46#	7317 46#	7317 46#	since 03/10, last log 12/17 2nd transmission Mon 0450z
x				x			1225		E11	03	20167 52#	20167 52#	20167 52#	20167 52#	since 05/15, last log 12/17
			x		x		1300		E11	03	8680 58#	8680 58#	8680 58#	8680 58#	since 02/16, last log 12/17
	x				x		1345		E11	03	14666 91#	14666 91#	14666 91#	14666 91#	since 10/15, last log 12/17
			x				1530		E11	03	5409 26#	5409 26#	5409 26#	5409 26#	since 06/14, last log 12/17 2nd transmission Mon 0745z
		x			x		1540		S11A	03	10728 56#	10728 56#	10728 56#	10728 56#	since 03/16, last log 12/17
	x					x	1605		E11	03	4505 23#	4505 23#	4505 23#	4505 23#	since 11/15, last log 12/17
		x				x	1625		E11	03	10448 97#	10448 97#	10448 97#	10448 97#	since 02/15, last log 12/17
	x		x				1645		E11	03	11493 33#	11493 33#	11493 33#	11493 33#	since 06/17, last log 11/17
				x		x	1650		E11	03	16335 92#	16335 92#	16335 92#	16335 92#	since 05/16, last log 12/17
		x			x		1705		E11	03	9443 39#	9443 39#	9443 39#	9443 39#	since 02/14, last log 12/17
		x			x		1730		E11	03	8545 40#	8545 40#	8545 40#	8545 40#	since 06/16, last log 12/17
			x				1730		E11	03	5779 41#	5779 41#	5779 41#	5779 41#	since 03/10, last log 12/17 2nd transmission Mon 0450z
x						x	1745		E11	03	13470 24#	13470 24#	13470 24#	13470 24#	since 05/16, last log 12/17
		x			x		1850		S11A	03	11486 28#	11486 28#	11486 28#	11486 28#	since 06/17, last log 12/17
				x		x	1910		E11	03	10487 61#	10487 61#	10487 61#	10487 61#	since 04/17, last log 12/17
	x		x				1925		E11	03	12067 55#	12067 55#	12067 55#	12067 55#	since 07/15, last log 12/17
		x		x			1955		S11A	03	5815 37#	5815 37#	5815 37#	5815 37#	since 02/14, last log 12/17
				x			2000		E11	03	6304 57#	6304 57#	6304 57#	6304 57#	since 03/12, last log 11/17 2nd transmission Tue 1045z
					x	x	2005		E11	03	11107 36#	11107 36#	11107 36#	11107 36#	since 03/14, last log 12/17 2nd transmission Thu 1530z

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jan kHz, ID, ...	Feb kHz, ID, ...	Nov kHz, ID, ...	Dec kHz, ID, ...	Remarks
x							0800	1/3	G06	01A	5320 329	5320 329	5320 329	5320 329	since 07/10, last log 12/17 repeat at Thu 1300Z
	x						1200/1300	?	G06	01A	4570/ 4010 563, check	4570/ 4010 563	4570/ 4010 563	4570/ 4010 563	since 10/14, last log 12/17 yearly changing frequencies + id
		x					1300	1/3	G06	01A	4460 329	4460 329	4460 329	4460 329	since 09/11, last log 12/17 repeat from Mon 0800Z
x							1700/1800	1/2	G06	01A	3645/ 4559 563, check	3645/ 4559 563	3645/ 4559 563	3645/ 4559 563	since 04/10, last log 12/17 yearly changing frequencies + id
		x					1830	2/4	G06	01A	4519 271	4519 271	4519 271	4519 271	since 05/01, last log 12/17 repeat at Fri 1930Z
			x				1930	2/4	G06	01A	4792 436	4792 436	4792 436	4792 436	since 04/01, last log 12/17 repeat from Thu 1830Z

Current HM01 Schedules

Freq 1	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5855	0500	0500		0500		0500	
11462			0500		0500		0500
10345	0600	0600		0600		0600	
14375			0600		0600		0600
9330	0700	0700		0700		0700	
13435			0700		0700		0700
9065	0800	0800		0800		0800	
11635			0800		0800		0800
9240	0900	0900		0900		0900	
11462			0900		0900		0900
5855	1000	1000		1000		1000	
9155	1000	1000		1000		1000	
12180			1000		1000		1000
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

F06 Schedules (January 4, 2018) Yellow schedules indicate message-only repeats of other schedules, not always present.

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ID
Every	Mon - Fri	02:00	16321												60146
		03:00	14881												
New message every day, no repeats the following days. Parallels F01 at 0000/0100z, S06 at 0400z, and M14 at 0500z.															

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ID
1st, 3rd	Monday	04:00				10686	11414	12064	11049	10748	9437	9354			70059
		04:10				8184	10169	10926	9126	9139	7923	7956			
		04:20				6773	8169	9049	8137	7424	6776	6774			
		05:00	6926	7328	10249								7658	6788	
		05:10	5945	6778	8137								6778	5384	
		05:20	4816	5126	5948								5361	4454	
		Repeats messages the following Wednesday at 21:00 or 22:00 instead of the following day.													

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ID
Every	Tuesday	16:50	10383	13374	16359	18726	19214	19936	19535	17534	14828	12215	10536	9313	10053
		17:00	9046	11165	13986	16238	17419	16354	16348	15613	12214	10814	8174	7928	
		17:10	7313	9219	11523	13378	14443	13955	13588	12215	10536	9046	7318	6783	

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ID
Every	Wednes.	06:00	20154	20072	18189	16325	17420	17512	17419	16346	15930	19268	20082	20157	40122
		06:10	18304	18291	16046	14724	15673	15930	15707	14847	13503	17548	18207	18241	
		06:20	16156	16071	14459	12172	13361	13503	13446	12223	11109	15779	16141	16204	

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ID
Every	Wednes.	08:00	18334	?	18038	16064	14694	14368	13994	14976	16023	19448	19104	18039	70048
		08:10	16346	?	16344	14367	12223	12204	12058	13373	14378	17503	17428	16204	
		08:20	14418	?	14563	12208	10163	10309	10174	11168	12158	15619	15603	14363	

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ID
2nd, 4th	Wednes.	08:00				19138	17488	16330	15795	16319	18178	20018			00052
		08:10				17545	15823	14367	13428	14378	15613	18325			
		08:20				15626	13459	12141	11060	11636	13459	16248			
		09:00	20735	20916	20386								20476	20875	
		09:10	18037	18730	18215								18915	18747	
		09:20	16250	16165	16061								16328	16316	

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ID
2nd, 4th	Wednes.	09:15				17538	14638	15629	14948	17434	16146	19476			10031
		09:25				14576	12156	13376	12176	14369	13385	17458			
		09:35				11639	10164	11544	10177	11163	11434	15884			
		10:15	19433	20639	20138								20349	18046	
		10:25	16048	17539	17428								18573	16326	
		10:35	14976	15644	14983								16245	14944	

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ID
1st, 3rd	Wednes.	12:30	16329	18235	18563	18476	17430	16286	16244	17455	18517	19363	18191	17478	90073
		12:40	14826	16144	16314	16168	15814	14517	14649	15923	16309	17476	15963	15838	
		12:50	12166	14519	14723	14643	13487	12179	12206	13388	14464	15873	13436	13387	

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ID
Follows 1st, 3rd Mon,	Wednes.	21:00				10636	?	12218	?	13548	?	9948			70059
		21:10				8163	?	11164	?	11516	10161	8115			
		21:20				6854	?	9418	?	8145	8184	6826			
		22:00	6828	?	10164								?	?	
		22:10	5129	?	8076								?	?	

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Every	Monday	00:25 01:25	13452	15803	16023	15820	14941	16218	14878	16023	15672	14434	12101	10884
		00:35 01:35	11106	12195	13555	13405	12221	13949	12185	14373	13892	11439	9215	8157
Doesn't repeat the following days.														

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1st	Wednesd ay	18:40				12194	14363	14621	14829	15854	13467	11136		
		18:50				10581	12189	12206	12214	13543	11084	9074		
		19:00				8112	10346	10465	10932	11126	9052	7723		
		19:40	7629	8156	10467								8172	7684
		19:50	6783	6844	8094								6791	5326
		20:00	4034	4527	6779								4546	4029
Repeats messages the following Friday (same times and frequencies) instead of the following day.														

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Every	Friday	22:30 23:30	17411	20741	20700	?	20206	19224	18562	20823	20618	20966	20741	18169
		22:40 23:40	15956	18401	18726	19405	18031	17491	16218	18397	18048	18954	18702	15765
Doesn't repeat the following days.														

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Every	Saturday	18:10	7684	9153	12184	14517	15806	16322	16147	15931	13384	11462	9247	8131
		18:20	5387	7641	10292	12196	13512	14804	14389	13452	11441	9226	7762	6824
		18:30	4572	5251	8054	10413	11131	12207	12214	11093	9184	7829	5216	4471

F11 Schedules (January 4, 2017)

Week	Day	UTC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ID
Every	Monday Thursday	08:00 08:05	6836		6906		6480				6906		6836		0434
Every	Monday Wednes.	08:45 08:50	9370		9339		13424				9339		9370		0353
Every	Tuesday Wednes.	11:50 11:55	6807		7670		6280				7670		6807		0325

XPA Sched c and XPA2 [Sched m, r & t] Russian Intelligence Multitone Systems
[Radiogramma] Transmission Schedules

Zulu >	0600/0700 Sched c Monday/Wednesday USB 10baud			XPA2 Sched m Various times Sun/Tue H 00 H+20 H+40 1300,1500,1800,2000,2100			XPA2 Sched r Various times Fri/Sat H 00 H+20 H+40 1400, 1900, 2100			XPA2 Sched t Tuesday/Friday H 00 H+20 H+40 0700z		
Month v												
Jan	9108	10908	12208	16138	14438	13438	16167	14663	13923	13472	14772	16272
Feb	11409	13509	14609	16338	14538	13538	18667	17419	16212	14558	15958	17458
Mar	11409	13509	14609	16138	14438	13438	18667	17419	16212	13431	14631	15931
Apr	10359	11559	13559	14538	13538	12138	17462	16114	14828	16347	17447	18747
May	10868	12168	13368	14538	13538	12138	17462	16114	14828	19667	18767	17467
June	11409	13509	14609	14738	13438	12138	16167	14663	13923	19514	18214	16314
July	11409	13509	14609	14538	13538	12138	15967	13884	12217	20173	18763	17473
Aug	10868	12168	13368	14738	13438	12138	16167	14663	13923	20049	18549	17449
Sept	10359	11559	13559	14538	13538	12138	16167	14663	13923	17429	18629	20129
Oct	10868	12168	13368	16338	14538	13538	17462	16114	14828	16284	18184	19584
Nov	11409	13509	14609	18238	16238	14438	17462	16114	14828	14517	16017	17417
Dec	7756	9056	10656	14538	13538	12138	15967	13884	12217	13393	14493	16293

Notes:

XPA c 0600/0700z schedule appears to be robust with reasonably strong signals into UK. Day change, Saturday to Monday 02/08/2017

XPA2 m Repetitive frequency triplets, appears robust, generally strong into UK

XPA2 r Schedule appears robust; generally very strong signals to UK

XPA2 t Weak in UK

XPA2 p Six day variable schedule, separate document

Bespoke decoding program used to decode: 'Sepal'

Updated 17/08/2017

SPECIAL MATTERS

Thanks to all our contributors:

Ary, Edd, BR, Danix, DanAr, DoK, E, HH, HJH, JkC, Jochen, KW, Malc, MaleAnon, MDNSB, PoSW, PLdn, RNGB, tING,
Apologies to anyone missed.



Operation Jallaa: Nil Return

MESSAGES:

E: HNY and thanks for input.

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>

2017

Source: Yeltez42.com

January

Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

February

Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

March

Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

April

Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

May

Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

June

Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

July

Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

August

Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

September

Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

October

Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

November

Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

December

Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

2018

Source: Vertex42.com

January

Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

February

Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

March

Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

April

Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

May

Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

June

Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

July

Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

August

Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September

Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

October

Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

November

Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

December

Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

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