

ENIGMA 2000 NEWSLETTER

Articles, news reports and Items of interest:

<http://reachus.at/enigma>e2k_news@hotmail.com

Jan 01

Issue2

Welcome to issue 2 of the ENIGMA 2000 Newsletter.

Time flies, it only seems like a few days ago that I was typing the intro to our first issue.

We start with a great big "Thank You" to the response from Issue 1; the number of messages of congratulation and support took the team completely by surprise, as did the offers for assisting with our monitoring. Many of you will have now received a note listing our monitoring requirements but if we have not yet replied please be patient, we will contact you.

The input to our News/Articles address has also been quite busy so there is a very interesting line-up of features for future issues, keep them coming folks.

The operators of Station **S6** would appear to have a sense of humour (SWM Dec, Attention -123!) when a short, test?, message SN 123 was sent on higher than usual frequencies. It crossed our minds that maybe they were "having a go" at the 123 series of articles and whether the TX would be noticed.

Sorry to say **S6'ers** you did not get away with it, the number monitors nailed you!!

The ENIGMA 2000 website has undergone a complete overhaul, with additional material, extra links and ease of use features added, various comments from our site visitors were taken into account, and the hit rate has increased considerably. A big thank-you to Martyn for his help with the web site. Thanks also to those whose efforts make the E2k newsletter something to be looked forward to.

The Morse station notes that we publish are the best available, but will not continue if the traffic is one-way. Please send your Morse input, frequencies and loggings to ENIGMA 2000. [Use either email address].

That's it for this issue, the publication editor told me "keep it short, running out of space."

Contact info 0762 627 6417

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* Please note that News/Articles submissions should be sent as ".txt, .doc, or .rtf"

MORSE STATION NOTES

Enigma 2000 is still **seeking help in monitoring the morse stations**. If you are able just to monitor one group it would be a great help. We can supply more information on any group you are interested in.

Any logs or requests for information will be answered. Send to either **enigma.box@centrenet.co.uk** or **e2k_news@hotmail.com**

Starting off this time is a profile of M1. This station has been on the air for many years. Noteable that it is the only station that still only uses hand sent morse. Operators must be very good as it is high quality with very few mistakes.

M1 is hand sent, using short zero, and the messages have a usual group count of 40 groups. Although just recently group counts have been varying between 30 and 48. The lowest group count of 28 was logged in October 2000.

The last group is now always the date the message was compiled and the group count minus one.

For example a message of 40 groups compiled on the

10th of the month, the last group would be 10039. This also applies to the M1 B network.

Type of transmission is MCW using low modulation of 2 audio tones. Sent at about 17 WPM although this can vary depending on the operator

Reference	Call	Preamble	Message	Ending
M1	197 R4	381 381 40 40 ==	40x5F ==	381 381 40 40 000

The IDs for this group remain the same for the following months.

197 November December January February

463 March April September October

025 May June July August

Transmission times are, and remain at the same time throughout the year.

Sunday 0700 Tues 1800 2000 Thur 1800 2000 Saturday 1500

Frequencies

197	5464	5320 4490	5320 4490	5810
463	6508	5474 5017	5474 5017	6261
025	6780	5280 4905	5280 4905	6434

Since September 1999 the signal has become very weak.

Variants of M1

M1A End of Month transmissions, the last Thursday and Saturday of each Month

These transmissions are an entirely different format to the normal M1 but they can vary each time. Suggest listening to them to hear the format. Some of these have been logged at times other than the EOM and at the same time as M1 was transmitting. Sending was not the usual high quality of M1. (possible operator practise sessions?)

M1 B Network. Hand sent. These are sent to individual IDs and the frequencies are changed at

intervals so cannot all be listed. I can supply some current frequencies if required. These messages are repeated and can be the same for four weeks or more. Parallel frequencies are used, group counts vary between the low twenties and as high as seventy five.

I have listed some of the present skeds. They do change frequency depending on the time of the year, as it gets toward Summer they move higher. Also transmit 1 hour earlier when the clocks change to summertime.

Frequencies as of November 2000

Day	Time	Freq	ID	Time	Freq	ID	Time	Freq	ID
Mon	1818	4949	103	2110	4613	136			
Tue	0823	6018	443	1823	5807	708			
Wed	1818	4949	103						
Thurs	0823	6018	443	1603	5940	159	1823	5807	708
Thurs	2132	4990	302						
Fri	2202	4505	271						

Some of these repeat the same message to a different ID The one on Monday at 2010 Thursday at 2032 and Friday at 2102 are the same message. It is also strange how some of them start at odd times. If not heard on listed frequency, try one of list below. note that when they change frequency they sometimes change ID.

4505 4603 4613 4704 4771 4905 4950 4960 4990 5027 5048 5062 5066 5220 5234
5240 5325 5330 5350 5366 5477 5735 5750 5803 5812 6283 6298 6824

M1C A common format of these is listed. Several other formats exist. If a

message is sent it is nearly always 10 groups.
385 385 385 84297 84297 Repeated 8 times
30 Second pause
385 385 385 86652 86652 Repeated 8 times
Can be any number of these, usually machine sent, ending is hand sent.
385 385 385 000
These can be on at any time and do not use the normal M1 frequencies so are very difficult to find.
Logged on 14 July 1999 on 9143. A long transmission from 1045 to 1133, with 2 messages of 30 and 33 groups.

M1D A new variation heard on 29 September 1999 on 5730 at 0700
Also on 30 September 1999 on 5730 at 0600 0700 and 0800
Similar to M1C but all Auto sent
Call up was 331

Last group of message was random
Here is an example of the end of month transmissions. These are on the on the last Thursday and Saturday of each month. Between each line of the message there is a pause of anything from 5 to 170 Seconds. It appears that it is waiting for a reply from outstations in these pauses. None of these replies have ever been logged. The message, although there is not always one sent is unusual, in that the groups are only sent once. The call up usually uses the ID in use but has been known to start 333. If using the 333 call up, transmission usually starts 2 minutes later. The ID in use is then sent 3 times in the middle of the transmission.

463 463 463 50481 50481 (This can be repeated up to 6 times)
111 51962 51962 (This can be repeated up to 6 times)
333 51028 51028
020 18 23
111 999
558 37 = 37x5f = 558 37
111 51179 53065 (Repeat of groups 15 and 25)
111 000

M3. Mostly null format,

The regular M3 null transmissions on Saturday at 0800 ID 624 and Daily at 1630 ID 287 keep to a regular list of frequencies.
Saturday 0800 January February March November December 7256 April May 8187
June July August 9272
Daily 1630, same dates 4180 5830 7256

Some other IDs active, 035 0630 on Monday and Wednesday 4014. This one changes to 038 whenever a message is sent. Tuesday is another very active day. 041 0730 4780,
503 0745 10720, This is another ID that has been sending null messages for many years. (Not heard since 31/10/00) 211 0815 5120, 552 0930 6330.
Wednesday 035 0630 4014 186 1100 9272. Thursday 017 0800 5870, 742 1100 6430. Friday 508 1100 7990. There is a long list of frequencies in the Morse Station Profile list, that M3 has used, but many of them have not been used for some time.
Logged on Wednesday 25 October 211 0900 7256, sending one of the strange messages 34 groups, first and last 2 groups 77777 77777.

M3A Very rare now, not logged since May 2000.

M4. Last log September 14 2000. Still looking to see if still active. Has not been heard since then. Possibly another one ended. See new skeds for E23.

M7. Not easy to find, as can transmit on any 10 minute slot during the

hour. It does use the same frequencies as M10. Has been thought to be for activating a remote recording device. Recent logs have been the same message sent by M10 to ID 434. Same message has been sent many times, so must be important.

M8. Still very active, best times for UK are 0700 to 1200 Unless you are an insomniac, then it can be heard from. Some frequencies in use at present are. 7582 8010 8079 8097 8137 8187 9064 9112 9154 9238 9333 10127 10236 10447 10874 11433. Skeds are not always the same, so it is worth listening on any of those frequencies on the hour. In the early part of the year it was quite usual to hear 2 messages being sent at the same time, but that does not happen at present. Having written that, M8 has started to send on 2 frequencies at the same time. So it is worth having a listen to other frequencies.

M10. Another station that uses a set list of frequencies, although as M3, some of them have not been used for some time.

A regular sked is at 2100 on Monday and Wednesday on 4782 and 5027 at present. Normal IDs are 619 and 071, although 249 is sometimes used in place of 619. This does not happen very often, 249 was last logged in May 2000, the next log was Monday 23 October, with an unusually long message of 133 groups.

This sked was interesting during the Kosovo crisis in 1998, it transmitted daily from 29 April until 21 June. First ID shared between 249 and 619, second ID always 071.

Another regular transmission is at 1630 on Saturday Sunday Monday and Wednesday, to 4 IDs 571 275 049 435. The second ID sometimes changes to 532, but not so often now. At present on 5946 // 6782. Other skeds Sunday 1800 5190 1920 9454 Tuesday 1500 10125. Thursday 1900 5474 // 4782, Friday 1720 10922 // ????

M10E Only sked known now is the 28 day one. Sent from Thursday to the following Tuesday, daily Always sent to 4 IDs with messages of 15 to 25 groups. Dates for next transmission, January 11, February 8, March 8. There may possibly be other skeds on as there is a log of 6 December at 0800 on 5250, ID 67794 15 groups. It is worth tuning round to see if any others can be found. Previous skeds were 0700 & 1400 Monday Wednesday and Friday. 1655 & 2100 Daily.

M12

The regular M12 on daily ID 749, 1600 6782, 1620 7657, 1640 8173, used to send a message on Monday Tuesday and Wednesday. The rest of the week was a null message. It now sends a message again Monday Tuesday and Wednesday, no transmission on Thursday. Then another message on Friday and nulls over the weekend. There used to be many repeats of the same message. Monday to 135 963. Wednesday 658 135 257 583. Friday and Saturday 658. All these have now ceased. There are still other M12s on. Wednesday 1930 13389, 1950 12240, 2010 10973 ID 628. Sunday & Friday 1840 10214, 1910 10841, 1930 9958 ID 289. Highest GC of this one so far is 357. Tuesday and Thursday at 0800, October frequency not found. There are probably also others, but as the call up time is only 2 minutes it is not easy to find them. Of course another problem is, apart from 749 all the others change frequency each month.

M13 Still very active. Although not easy to find to start with, once found the same frequencies repeat from year to year. Transmissions are always on the same days of the month. Can be on any frequency from 3600 to 13500.

Single IDs active at present are 253, 254, 261 or 590, (Depends on length

of message) 272, 284, 346, 378, 411, 417, 517, 714, 753, 757, 823 975.
Some of these have been logged at 0530 and 0600. This may possibly be a repeat of the previous week's message sent in the evening. M13B moved to a new lowest frequency for M13, in November it was on 3246. Might be possibly lower in December. There are another 48 IDs in use but only by 4 groups as they change ID each month.

The first transmits at an unusual time 1600 and 1800.

The next M13A uses a different form of call, the ID is sent 3 times followed by 3 zeros. Transmits on the second and fourth Monday Tuesday of each month at 2100.

M13B Transmits on the second and fourth Saturday and Sunday in each month 2200. It can use the type A call, although this does not always follow from 1 year to the next.

July 1999 was 175 and July 2000 was 175 175 175 000. It also may transmit 2 different messages in the month, these may also be longer than the usual M13 message, up to 70 groups.

M13C May transmit on first and third Wednesday and Thursday of each month, at 2200 although it is possible that these days and times may change. Only a few logs from January 1998.

Another one that is useful for those learning morse as it sends slowly.

Some predictions for January. ID, dates, frequency, and time

517 1/2 15/16 6378 2000 2100 253 4/5 18/19 6574 2100

284 5/6 19/20 3824 2100 411 6/7 20/21 4470 2130

261/590 7/8 21/22 6378/5460 2000 2100 417 7/8 21/22 4365 2000

714 11/12 25/26 6382 2000 915 11/12 25/26 7576 1600 1800

M13A

735A 8/9 22/23 5725 2100

February

253 1/2 15/16 8107 2100 284 2/3 16/17 5246 2100

411 3/4 17/18 4927 2130 261/590 4/5 18/19 5735 2000 2100

517 5/6 19/20 7566 2000 2100 254 7/8 21/22 6350 2200

714 8/9 22/23 7926 2100 757 8/9 22/23 7857 2245

228 8/9 22/23 8079 1600 1800

M14 Not much activity, only recent log Wednesday 6 September 2000 4452

M14A Still has the regular Friday transmission at 1900, frequency varies from 4600 to 4650.

M16 The same regular transmissions every hour. Does not seem to use the Q & Z signals so much.

M23. Old faithful, the regular sked at 0800 and 1400 on 8307 // 9285, still continues to send 579 daily. First logged February 1997.

Other transmissions are 0928 and 1458 on 7795. 0928 on 7800. These are usually Monday to Friday. Can anyone suggest why they should keep on repeating messages for so long. One message was first sent on 29 September 1999 and has been repeated 30 times. There are many other messages like this, but the repeats do not follow any other pattern. Apart from these regular transmissions, can come up at any time, anywhere from 4 to 8 Mhz. Some IDs in use on 7795 plus the date that the message was first sent. 002 15/5/00, 024 13/10/99, 062 6/10/99, 080 20/10/99, 448 21/10/99, 482 29/9/99, 606 18/10/99, 666 16/11/00, 624 9/10/99, 882 27/9/99, Note that they are all even numbers. Many of these messages have been repeated over 30 times. On 7800 the IDs are 00000 or 11111. The sked on 7800 at 1100 started to send to ID 22222 on 13 November.

Several different messages were sent during the week.

The usual for IDs 00000 and 11111 is to keep onrepeating the messages. Another interesting thing about the ID 22222 messages, is that the signal is a lot stronger than usual. Possibly intended for the UK. Activity on this frequency has become frantic, with new messages every day. IDs 22222 33333 44444.

M24 Much more activity than M14, but do not keep to any skeds so can be on at any time. Many of them heard well in the USA. 1 Sked reported is on Saturday and Sunday at 2100 on 18562.

M24A As M14, still 2 regular transmissions, Monday 1900 4450 to 4500 ID 263, and Wednesday 1900 4800 to 5000 ID 362. All these send 2 messages, the group counts of which add up to around 144 groups.

M29 An interesting station, many more transmissions than its Sister voice station G4. At present has skeds on Sunday 2100 2130, Monday Tuesday and Friday 1800 2000, Monday 0700 0730, Tuesday 0700 0730, Wednesday 2100 2130. Frequencies for the Monday Tuesday and Friday transmission remain the same each month, the others change each month. The current frequencies can be obtained from Enigma 2000

Frequencies for the Tuesday Friday and Saturday Transmission.

January	4580 4420
February	5340 5130
March	5750 5460

1700 1900

April	6590 5710
May	6640 6420
June	6530 6470
July	6660 6510
August	6750 6570
September	6810 6720

1800 2000

October	5810 5390
November	4540 4460
December	4610 4430

December Skeds Sunday & Wednesday 2100 4350 2130 4450
Monday & Tuesday 0700 5210 0730 5220 1300 5210 1330 5220

It is possible that there are 2 transmitters, the morning transmissions are sent faster than the others.

There was a fault with the transmission on Sunday 3 December. Most of the transmission was a continuous carrier with only short bursts of morse.

M40. Is not regular but does stay on the same frequencies. Only 2 audible in the UK are 515 and 747. 515 is on at 1700 on 8860 and 1730 on 12300. 747 is on 0900 and 2000 on 10620. Messages are repeated on the next day.

M45. This is very useful for those learning morse, as it sends very slowly, each group is repeated and the same message is sent each month. A copy of the current message is available on request.

Hand sent, usually very well with very few errors.

One interesting error on Thursday 26 October, startred calling 54, after a

minute stopped and then called 454, which is the ID for S21. After a further minute he must have been told, and started using the correct ID 555.

Frequencies and IDs for 2001

January February	3525	// 4025	525	1802
March April	4555	// 4955	555	1802
May to August	5074	// 5474	074	1702
September October	4555	// 4955	555	1802
November December	3525	// 4025	525	1802

M63. First log of this one on at 1903 on 5807. Short call up transmission.

M76. Back on again at 0500 and 1750 on 3819. The 0500 transmission is far stronger. In the second week of November the transmission developed a bad chirp. This is still there at the time of writing. It does at least make it easy to identify.

The format is still the same, changes callsigns daily, although the 1750 and 0500 the next day have the same callsigns. The preamble still starts with 26310, as it is always the same we wonder why they bother to send it. The same goes for the messages, they always start with, 40545 and end with 437.

MX Single letters.

Some active at present.

Letter R on 5466.

Letter L on 3338 still with chirp.

Letter L also on 8190 at 1600 on Tuesday 5 December.

Letter S on 5155 at 1920 on 5 December.

There are still some clusters active, but they are not on very often.

If anyone is interested in logging one of the groups there is much more information available on request.

Additional Info on M12 from ENIGMA].

M12- 082, 135#, 147, 169, 242, 257#, 258, 269, 275, 289, (279 groups on 1st October, 331 17th October), 302, 326, 351, (311 groups on 3rd September), 363, 416, 418, 419, (373 groups 5th November) 446, 521, 541, 555 (Yes! Freq-related 14521-13521-12521), 557, 658*, 578, 691, 749*, 750, 791, 840, (GC 227 22nd October), 886, 941 (GC 333 3rd September, 229 17th September, 301 24th September), 949, 957. 963#

*special and linked, #linked with *

January – July:

042 082 084 134 135 162 208 248 (MCW) 257 357 398 416 446 462 494 505 507 583 658 749 791 853 (A MCW) 875 876 945 954 963

After many years the regular special SN 658 [associated with 749] has disappeared.

Longest message this period: 347 groups [SN398 on primary 16326]. SN042 also carried 339 groups on 26th May [on primary 19033 – a very high frequency]. Daily 749 is still running around at 1600 and messages are still only sent on Monday, Tuesday and Wednesday.

[Info on M12 from ENIGMA].

SELECTED VOICE STATIONS

**We draw your attention to the ‘recent’ news report [featured in News Items] and ask for any unusual traffic

via E10 to be reported via e2k_news@hotmail.com **

Whilst getting a feel for a new receiver a quick spin through just 480kHz in the 5MHz range resulted in five number stations being heard in 30 minutes which proves exactly how active these stations are. [It's not even the Cold War anymore]!

E10 KPA2 S5 at 1916Z on 5230kHz
E10 SYN2 S5 at 1949Z on 5340kHz
E05 TCS S7 at 1914Z on 5374kHz
E03 LP S4 at 1945Z on 5422kHz
E10 CIO2 at 1949Z on 5710kHz

E03 Non standard freq line up, 12603//9251//6951 kHz heard at 1700Z 04/12.
Freq line up changed to : 11545//8464//6959kHz by 1713Z 04/12

E03a New freqs 18864//21866 confirmed as being used at 1300Z, 2300Z and 0000Z, with 18864 used at 1100Z, 1200Z [22/11 & 23/11].

1000Z nnnnn//nnnnn
1100Z 18864//nnnnn
1200Z 18864//23461
1300Z 18864//21866
2200Z 18864//24644
2300Z 18864//21866
0000Z 18864//21866
0100Z nnnnn//21866

1300Z 18864//21866 heard in UK. 21866 very weak, not heard on 1100Z or 1200Z transmissions, 23/11
2200Z to 0100Z freqs heard by JM in US
What freqs replaced the 1000Z freqs [20474//23641], Is there still a 1000Z transmission?
Previously scheduled freqs of 17499, 19884, 20474, 22108 & 23461kHz apparently silent.
Nil required heard on any E03a freqs 1000 to 1343Z 29/11.
Some chirpsounder activity on both 18864 and 21866 noted.

E05 6960kHz calling 808 clashes with E03 2200Z 08/11

E06 9222kHz 2023Z 27/11, 5750kHz 2120Z 28/11

E07 Heard over E03 on 6959kHz at 2100Z 20/11

E17 5420kHz 0226Z 06/12

E18 Nil required heard in November. Only transmits on the second Wednesday and Thursday of each month 2200Z and 2300Z. Last frequency 6545, try 6120

E23 has changed its schedule from September.
Week 1 now starts on the first Monday of the month. Transmissions are on Monday Wednesday and Thursday. Times in UTC.
Week 1 0957 6507, 1157 8188, 1257 5340, Mode AM
Week 2 No transmission. Formerly M4
Week 3 1157 8188 Mode AM
Week 4 Possibly 0757 on 5340, 0957 8188, 1157 7250 Mode AM.

G04 4110kHz/2105Z & 4210kHz/2135Z Sun and Thurs

G06 7912kHz calling 308 1900Z 06/11

G07 5439kHz 467 000 2210Z 06/11 [mon]
5376kHz 742 000 2110Z 04/12 [mon]
5081kHz 742 000 2130Z 04/12 [mon]

S10E puts a reasonable signal in to the UK on 10642 at 1300Z on a 28day rotation. Last started on 16th November 2000. In the transmission heard on 19th Nov sounds of things being dropped or kicked about could be clearly heard from 1314Z onwards.

S17C at 1250Z daily on 8190kHz. S9 into the London area.

9385kHz 1250Z 05/12

S31 Low frequency transmissions from Prague in the Czech Republic.

1122kHz -Two minute transmission h+10 and h+40 24 hours per day.

2136kHz – Weekdays 1745Z, weekends 0700Z

Three sets of rising tones precede a Czech female voice counting from 50 to 59.

Reports requested on this one please for both frequencies.

V02 5135kHz 0200Z to 0243Z Sat

V02a 9330kHz 0700Z Mon
9024kHz 0200Z Wed

V13 8300kHz 2210Z 21/11 Tue

XPn heard every November Tuesday. 6865kHz , 2100 and 2300Z reported so far, appears to be a regular slot.
[New freq in Dec?]

Nov freqs:

XPH 11634kHz Tues 0700Z

XPH 13434kHz Tues 0720Z

XPH 14834kHz Tues 0740Z

XPH 7426kHz Tues 2100Z

XPH 5809kHz Tues 2120Z

XPH 6781kHz Tues 2130Z

XPH 5162kHz Tues 2150Z

Dec freqs:

XPH 11024kHz 0700Z Tuesday and Friday

XPH 12224kHz 0720Z Tuesday and Friday

XPH 13924kHz 0740Z Tuesday and Friday

XPH 6848kHz 2100Z Tuesday and Friday

XPH 5776kHz 2120Z Tuesday and Friday

XPH 4637kHz 2140Z Tuesday and Friday

XPH 6934kHz 2110Z Tuesday and Friday

XPH 5927kHz 2130Z Tuesday and Friday

XPH 5359kHz 2150Z Tuesday and Friday

Thanks to all those who sent in their logs, including: Rob of Essex, Mick of Strathclyde and John of BFPO 582; thanks to VM for the XPH info.

Please send your voice logs to either enigma.box@centrenet.co.uk or e2k_news@hotmail.com

ODDITIES

We have received a valid report of an open carrier that manifests itself between the frequencies of 1900 and 3200kHz. Has anyone else heard this? Please state your area and the exact frequencies heard between.

ALARM

The frequency of the 'Alarm' station, 9364.2kHz, has its frequency marked as the 'Fixed' classification, marked only as 'fixed' in the US frequency tables but also as 'Government' in the UK tabulation. [See mention in 'Slot Machine'].

ENIGMA 2000 would be grateful to receive further details of the 'Alarm' or readers thoughts.

FADERS (XF)

Faders are so called because of the way in which the pulsing signal literally fades to a lower strength after each 7.5second burst after a short break/glitch.

When the signal is not being sent a single 7.5s burst is sent every 15 minutes on the quiet frequency. The glitch has also been heard being transmitted alone on 6990kHz.

Recent frequencies where XF has been active are 3214, 3291, 5330, 5788 and 6990

FSK BURSTS

This particular station may have a perfectly innocent explanation, however I have never seen any references to its operation. It seems to have been around for many years and I am sure ENIGMA 2000 readers will have heard it many times even if they never really paid it any attention. One of its frequencies is shared with the E10 station ART which operates on 5435 kHz (approx).

The signal we are interested in consists of a 7.5 second multi-channel burst of FSK - however this particular station likes to frequency hop and appears to have a 24 hour a day operation. Interestingly I was told that even in Greece the interference to 5435 and ART's transmission is quite strong and the E10 station comes from nearby Israel. The station follows the clock minute sending 8 x 7.5 bursts across a wide frequency range.

At first glance the sequence looks very simple but this belies a more complex operation, at first I thought there may be two networks but it would be a very big coincidence if two separate set-ups used the same frequencies at different times within the same window.

Simple Guide-

Time	0-7.5	7.5-15	15-22.5	22.5-30	30-37.5	37.5-45	45.52.5	52.5-0	SECONDS
Freq	?	?	16095	12725	8460	6351	5435	3295	kHz

Complex Guide-

Time	0-7.5	7.5-15	15-22.5	22.5-30	30-37.5	37.5-45	45.52.5	52.5-0	SECONDS
Freq	12725	8460	6351	12725	8460	6351	5435	3295	kHz
Freq			16095	5435				12725	kHz

The 5435 kHz transmissions at 22.5 seconds and 45 seconds are of different signal strengths which may suggest different locations or directional beams. It is also impossible to say if we have all the frequencies in use listed, however, I was given another frequency on which I have never heard anything (?) but this is not to say that given the right conditions this may be possible. The frequency in question is 24430 kHz.

The frequencies used do not really offer up much of a clue.

24430, 5435,	Fixed Services Bands
12725, 8460, 6351,	Maritime CW Bands
3295,	Shared Fixed Services & Maritime Band

It would be very interesting to know just what information this station is sending, why it needs to send it over such a large frequency range and why it needs to operate 24 hours per day. It is interesting that it uses 7.5 second block - exactly the same as those used by 'Faders' -.

If you know anything about this station, its purpose and transmitter location(s) or can decode its messages, please contact ENIGMA 2000.

PIP (S30)

Still going strong on 3757kHz, CW

SLOT-MACHINE

Following the discovery of the 'Slot Machine' on two frequencies, 8588 and 8703.5 kHz as notified by JM in the US, an observation was carried out in the UK. On tuning up on those frequencies at 1400Z until 1700Z on 5th November it was noticed that 8588 was reasonably quiet, except for repetitive musical tones. A peculiar rattling noise was heard [reminiscent of coins going into the pay-out tray of a slot machine] but was discovered to be side band splatter from a transmission on 8583 kHz.

8703.5 was occupied by the 'Jet Noise' previously heard on the lower freqs and reported in ENIGMA newsletters. Nothing of note was heard until 1513Z. A repetitive tone, sounding similar to the recently heard 'alarm', was noted until 1523Z when it suddenly ceased. A recording was made and a spectrogram produced from a generated .wav file.

On perusal of the spectrogram it was seen that each pulse consisted of five different frequencies, 472,1120, 1637, 2239 and 2795 kHz. These multi-tone pulses had 384mS duration with a lapse time of 216mS.

All the tones seem similar in duration, although each particular pulse appears to be modified in the duration of those at 2239 and 2795kHz. The 'Alarm' spectrogram is somewhat different.

The frequencies mentioned in reports as carrying the 'slot machines' are stated in the UK allocations as being, "An Internationally allocated band for the maritime service or two and single frequency SSB operation." The US allocations show it as being for, "Coast stations - wide band and A1A Morse Telegraphy, facsimile, special and data transmission systems and direct printing telegraphy system."

Monitoring the frequencies in the UK on Sunday, 19th November, between 1500 and 1700Z again resulted in 'nil required heard'. A Spy Numbers Robot listing indicates that JM [US] heard the station at 1530Z.

Slot Machine has been heard on Mondays at 1600Z, Wednesdays at 2200Z and Thursdays at 1600Z. The frequencies remain the same with the addition of 4292, 6417 and 6445.1.[Listed as stated above].

To date these signals have not been heard by ENIGMA 2000, other than by MP3 sample. Our resultant spectrogram looked very similar to that posted on the www.ominous-valve.com/mystery.html site

Further observations will be made on this oddity and ENIGMA 2000 would be grateful to receive further .wav files of the Slot Machine and would like to hear from anyone, Stateside or Europe, willing/able to make observations, or offer constructive thought on this interesting unknown.

SQUEAKY WHEEL

Last reported on 5641.5 at 0400. A similar signal was recently noted on 3650 with some interference from a near facsimile transmission. Last obs 3815kHz 2218Z 02/12. MP3 file available on Ary's N&O site.

SWEEPERS

A theory has been offered suggesting that the sweepers heard around 4500, 5300, 12145 and 13nnn in the past are produced by an S3A sonar transponder. The correspondent stated that he was trying to acquire software to decode or perhaps use a drum printer to reproduce imagery.

TELEPRINTER 4710 kHz

In Issue 1 of ENIGMA 2000 information was requested about the Teleprinter on 4710 kHz. Certainly this has operated for a good many years. I can confirm categorically that the 4710 kHz outlet has at least one transmitter at the USAF/CIA site at Barford St John, Oxfordshire. This FSK transmission can be heard around the clock, when absent the carrier remains on. The same signal is also sent out on 6702 kHz and 9000 kHz in parallel, although not all three frequencies are always active at the same time, although both do idle with a carrier. At the time of my visit to Oxfordshire 6702 & 9000 kHz were not coming from this site, which suggests they are located elsewhere in Britain or Western Europe.

It would be interesting to know what they are sending, but I guess it will not be anything other than heavily encrypted, whatever it is they are very busy, comments welcome.

Teleprinter 4710 has been reported as being active [and heard by e2k]: 4710//6702//9000kHz at 1918Z.

WHALES (XM Backwards Music Station)

An interesting explanation of the whale-like sounds has been posted in N&O issue 30, and penned by a Paul Vincent.

For Europe try these historical frequencies: 5094, 6422, 6695, 8460, 10225 and 10513kHz. For the US: 9285, 10225 and 11209kHz

WORKSHOP (XW)

Previous frequency reported for this was 4330kHz.

This peculiar station was heard again on 11/11/00 at 1744Z on 5430kHz. At S7 in South London. The transmission lasted for around 20 mins.

ZEBEDEE

This interesting noise, sounding like a bedspring [like the character Zebedee in the Magic Roundabout] last heard on 2951 and 4575 kHz.

We would be grateful to receive reports of these or any other 'oddities' via the usual e-mail addresses or pager number.

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

<http://dSPACE.dial.pipex.com/broggers/page2.html>

Thanks to C for his most valid input.

ENIGMA 2000 ARTICLE

JAMMING

Regular listeners to numbers stations will be aware that some of these stations are heavily jammed, sometimes to the point of making the transmission totally unreadable. It is obvious that a lot of effort goes into the jamming of numbers stations.

For example, the station known as Lincolnshire Poacher [E3] simultaneously transmits on three separate frequencies at a time, more often than not, all three of these frequencies will suffer jamming to some degree, sometimes to the point that the transmission is totally unreadable. This would point to the existence and use of at least three jamming transmitters of appreciable power, and their associated equipment.

So what's it all about ?

Jamming can be defined as the deliberate interference of an electromagnetic communications system, with the intent to prevent, or to make difficult, the reception of the information transmitted by the targeted communications system.

Well, that's all a bit heavy, so what does it mean? As we know, numbers stations transmit information, encrypted in the form of numeric groups, some thought to be produced by the use of one time pads, and believed to carry messages to intelligence personnel or 'illegals' operating inside a hostile foreign country. In the case of some stations, similar information outside the remit of normal diplomatic communications channels is transmitted to embassies. If you put yourself in the position of the target country, it is obviously in your country's interests to prevent the information being received and/or be acted upon by those persons who may be operating within your country - most likely with a purpose detrimental to the interests of your country.

There are two ways you could go about this - you could concentrate your efforts on breaking the encryption which is being used to secure the message, or taking steps to prevent the instructions or information within the message being acted upon.

In the case of numbers stations transmissions the encryption provided by the one time pad system is believed to be currently unbreakable as long as certain rules regarding their use are followed. Since there is no way to ascertain which, if any, of the many transmissions contain actual traffic and which are 'null', attempting to decrypt the transmissions would be a time and resource consuming act, and would most likely prove fruitless. The only option left therefore is to prevent the reception of the transmissions by the intended recipients in the first instance. This may be accomplished by jamming.

To jam a transmission, equipment no more complex than a transmitter of suitable power operating on the target frequency and a suitable antenna system are all that is required.

Some form of modulation is normally added to the carrier to increase the effectiveness of the jamming, but other

than equipment to produce this modulation, no particularly exotic equipment is required.

Taking into account the frequencies and powers required, the equipment used in jamming numbers stations would not be so different from commercial broadcast equipment, and indeed in the case of the frequencies used by some numbers stations, suitably modified commercial broadcast, aviation or marine transmitters could be put to use.

An interesting development in dedicated jamming technology is the 'intelligent' or 'look through' jammer, which consists of a linked transmitter and receiver. In this set up, the equipment is tuned to the frequency that is to be jammed, and the receiver then monitors the frequency. When it detects a signal on the frequency, it will activate the transmitter portion of the equipment, which will then proceed to jam the frequency. After a set time, the jamming power is reduced, or switched off, and the receiver 'looks through' to see if a transmission is still present on the frequency. If a transmission is present, it reactivates the jamming transmitter, if not the transmitter remains off, the receiver recommencing its watch. Although it is unknown if such equipment is deployed against numbers stations, certain jamming sounds would give rise to possibility that such equipment might be in use, although perhaps not by those who jam the Lincolnshire Poacher.

Those attempting to affect the Lincolnshire Poacher sometimes commence jamming on the pre 1800Z frequencies after the 1800Z schedule changeover! It is quite possible that some jammers, which jam stations having a definite schedule, operate under the control of something as simple as a timer switch.

There are two main forms of jamming technique - Spot and Splash.

Spot jamming is the form utilised against numbers stations, where a single frequency is jammed by a single transmitter, and is usually quite effective, as can be seen from the disruption caused to many numbers transmissions.

Splash jamming, sometimes called barrage jamming, is where a single wide bandwidth transmitter is used to jam a specific range of adjacent frequencies, [eg. 5.0 MHz to 5.2 MHz].

This is normally utilised against multi channel communications systems having several closely spaced channels, a single transmitter being used to jam all the channels simultaneously. It must be noted however, that although some numbers stations which operate on several parallel frequencies are often jammed simultaneously, this is still individual spot jamming of each frequency, as they are too widely separated to be Splash jammed.

As mentioned above, some form of modulation is often added to the jamming transmitter carrier to increase the effectiveness of the jamming. Although an unmodulated carrier could be used to disrupt communications, it is not the most effective manner of jamming. There are several forms of modulation commonly used in conjunction with jamming. A few of these are listed below, but it should be noted that any conceivable form of modulation may be used.

White noise - White noise can be deployed as a jamming modulation, and is insidious in the fact that it may not be recognised as jamming at all, being simply dismissed as natural atmospheric interference. Sometimes the white noise may itself be modulated, often with a 'pulsing' quality, which is quite effective, having a high 'annoyance factor'.

Bubble - Bubble jamming gets its name from the particular sound which it makes - if you listen carefully, you will notice that the sound is similar to that of water boiling in a pot. Often used in the jamming of numbers stations.

Tones - Tones are another common jamming modulation, some being single tones applied to the frequency for several seconds, some sounding like two alternating tones, some with rising and falling tones, all of various pitches.

As mentioned above, this list is very far from exhaustive, and only the most common have been listed. It may be useful, however, if you ever come across an unusual form of jamming, that you note it in your log.

In early October, a curious jamming signal was heard on 5059kHz in the late evening, which consisted of rapidly changing 'tune' of random tones, distinct from any data mode which then became the ubiquitous bubble jamming. Test of a jamming transmitter?

Another point to note is that although the jamming may not have a great effect on your reception at your position, the jamming experienced by the intended recipient may be much greater. This being due to his position

in relation to that of the jamming transmitter, and also the fact that he will probably not have the luxury of a large antenna and a professional receiver with audio filtering. In fact, he will probably have not much more than a few feet of wire and an inexpensive broadcast type receiver.

Perhaps at this juncture, we should consider that numbers stations are not the only transmissions to suffer from jamming, indeed some broadcast stations are subjected to jamming. A quick look through the "Passport to World Band Radio", or a similar publication, will reveal that some stations, particularly those deemed by certain regimes to be subversive, are affected in this way. A large scale example of this would be jammers deployed in Russian cities, during the Soviet era, to prevent the reception, by the general public, of Western radio broadcast stations. A more recent example of this would in 1998, when Voice of Tibet was allegedly jammed by the Chinese authorities, who suddenly decided to broadcast a Radio Canada International programme on the same frequency.

The Chinese authorities have been known to jam other external broadcasters, including BBC World Service and Voice of America.

In 1996, around the time of the Balkans Conflict, the independent Belgrade radio station Radio B92 was jammed by several jamming transmitters, restricting its reception area to only 40% of its usual coverage.

Perhaps one of the most interesting recent developments in jamming technology is the mobile phone jammer, developed by an Israeli company. The unit prevents the use of mobile telephones, in transmission and reception. Whilst intended to be utilised in concert halls, theatres, churches and other premises where it may be inappropriate for mobile phones to ring, it could obviously have other applications.

Anon of NI

BOOK REVIEW

The Code Book

By Simon Singh, Published in hardcover by Fourth Estate; ISBN 1857028791 at £16.99

On 31st August 1999, a Tuesday, the Daily Mail printed an interesting article entitled "Secrets of the Codebreakers" by Simon Singh. A picture of the inside of the second world war Bletchley Park facility was included. At the end of the piece a challenge was made inviting the reader to solve the 'special' Daily Mail cipher challenge and win one hundred pounds. (I solved the challenge correctly in just 15 minutes, sent it off and heard no more).

The article ended with the words 'An extract abridged by Trevor Grove from the Code Book.....'

Opening the Code Book the introduction begins "For thousands of years kings, queens and generals have relied on efficient communication in order to govern their countries and command their armies. At the same time, they have all been aware of the consequences of their messages falling into the wrong hands, revealing precious secrets to rival nations and betraying vital information to opposing forces.

It was the threat of enemy interception motivated the development of codes and ciphers: techniques for disguising a message so that only the intended recipient can read it."

Those few lines accurately sum up the necessity of codes and ciphers and by interpreting the unwritten message there, specifically states the requirement for the skills of the cryptanalyst and the huge, expensive secret industries that now exist to suck in, or disseminate secret messages.

Simon Singh, educated at Imperial College and Cambridge, has researched his subject well, taking the reader from the early substitution and transposition ciphers to the Playfair system, Zimmerman telegram and other systems including the one-time Pad to the current Public Key Cryptography. Techniques used on the recent test on the GCHQ web page are also covered.

As if that is not complex enough for the reader, Singh then looks into the suggestion of Quantum Cryptography which he uses the eighteenth century experiment of physicist Thomas Young (The Undulating Theory of Light) involving Young's Slits and interferometry to lead to an effective and interesting explanation of the basis of Quantum Cryptography, the 'Superposition of States.'

The book is enjoyable to read and perplexes the brain, although Singh's own mathematical skills do seem a little unnecessary at times. It has a very different approach to the usual 'stated' works on the subject and ends with ten mystery ciphers of varying complexity, each utilising a different method.

The first to break those encrypted messages stands to win ten thousand pounds.

The last encrypted puzzle appears to be in PGP and the reviewer was not surprised that Singh states that if all the messages are not broken by 2010 he will choose the candidate who has, in his opinion, done well enough to deserve the prize.

The Code Book is not light reading nor is it to be considered a text book. It is a particular reference work that has, in the style that it is written, surpassed all others on the same subject. It is to be recommended to any person who has an interest in codes, ciphers and their mechanisms.

A television series, 'The Science of Secrecy', broadcast on BBC2 encompasses the content of the book into an interesting visual experience.

Incidentally, the coded message in the Daily Mail read:

"In the nineteenth century young lovers used codes and ciphers to send each other secret messages parents could sometimes forbid their daughters to send love letters and they could therefore send a coded message to the newspaper which would print it in a special column known as an agony column"

NEWS ITEMS

****Special Agents activated in West Bank and Gaza ****

Due to the possibility of suicide bombings being carried out in the West Bank and Gaza areas Ehud Barak ordered Israeli security services to activate dormant special agents in the West Bank and Gaza areas after intelligence gathered by Mossad indicated that suicide bombers were expected to target the commercial centre of Tel Aviv.

These dormant agents are spies who have lived in the West Bank or Gaza areas for months, sometimes years, along with their families. Some agents are of Arab origin but are employed as Mossad operatives. It is thought that these operatives are only activated in times of war.

[Reported 31st October 2000]

French secret services accused of dirty tricks in Tank deal.

A £1bn tank bid to supply the Greek government with Challenger 2 tanks has raised suspicions that the French secret services used dirty tricks to scupper the British bid.

French and British teams were among four countries in competition for the tender to supply 250 Tanks.

The other countries being Germany and America.

During the tests the British Challenger tanks had difficulty with navigation and were unable to work out exactly where they were. The British use the satellite global positioning system, GPS, for navigation, whilst the French had no such problems with their navigation.

The Americans also claimed that their navigation suffered difficulty and it was later alleged that the French were covertly interfering with a GPS signal.

Investigations showed that a signal was transmitted blocking the signal from one satellite. Since the GPS system needs the signal from 3 or more satellites for accuracy the loss of just one signal means errors in navigation in excess of 100 yards.

In 1995 an American Institute think-tank estimated that France was devoting a third of its secret service budget to economic intelligence. This may well be true since agents from the DST, Direction et Surveillance du Territoire, [French Internal Security Service] removed documents from a hotel in Toulouse where British Aerospace executives were staying.

The Greek officials found the whole event to be most amusing and discounted the dirty-tricks in their decision making processes, eventually selecting the German made Leopard 2A5 Tank as their choice.

Former KGB Colonel Executed.

Gennadi Bernoyski, 41, a former KGB Colonel was executed at his luxury Gold Coast Canal home at Benowa Waters, Australia.

Detective Inspector Len Potts stated that the ex-colonel was putting his rubbish out when he was shot several times in the stomach. The victim managed to crawl back inside the house but died before help could arrive. Two men in wet suits were seen on the night of the murder and if frogmen were involved they could have escaped by swimming across the canal.

He also suggested that a boat could have been waiting nearby explaining why no car was seen leaving the scene. Seven empty cartridges from a handgun were found in the driveway.

Bernoyski's wife, Svetlana, 28, has stayed away from their home since the shooting.

It is not thought that Bernoyski's previous service with the KGB had anything to do with the shooting, whilst there also appears to be no links with the Russian Mafia.

Lost US 'spy' traced

American military intelligence officer, Lieutenant-Colonel Jeremiah Mattysse fell in love with an Israeli woman and disappeared with top secret documents. He was reported as sporting a false beard at one stage but was found in southern Israel. Police who questioned him thought that he was simply absent without leave.

It later transpired that Mattysse, aged 50, had converted to an ultra orthodox Jewish Sect and decided to return voluntarily to the US after speaking with senior officers. He also denied giving the Israeli's any classified material.

The 'girlfriend' Ricky Niv said that Mattysse had handed over sensitive documents. Miss Niv has dual nationality, US and Israeli. Israeli officials have stated that Mattysse had actually applied for immigration status and that the allegations of spying by Ms Niv could be discounted.

Charges dropped against student.

A mature student, Julie-ann Davies 36, arrested last March in connection with 'whistleblower' David Shayler has been told that the charges against her, under the Official Secrets Act, have been dropped.

Ms Davies, studying Manufacturing Engineering at Kingston University, was reportedly removed from a lecture in March and arrested by four Special Branch Officers. Her computer was also seized.

According to various reports Ms Davies was active in a campaign to have charges against David Shayler dropped.

A document that appeared on the Internet alleging that MI6 was involved in an assassination attempt against Colonel Gaddafi apparently featured in her questioning.

Ms Davies was given police bail, demanding that she returned 3 times. Her solicitor stated that the charges laid against her client had been "politically inspired".

The charges were apparently dropped upon David Shayler's return to Great Britain, where he now faces charges under the Official Secrets Act concerning disclosures made three years ago about MI5.

Julie-ann Davies accused the police of ruining her career and violating her human rights, commencing legal action against the police through her solicitor, Gareth Pierce.

In an email to an American site she wrote:

'Following my arrest I have not been re-interviewed or contacted by Special Branch except to extend my Police bail twice. I have been held on Bail for over six months without ever being told exactly what I am supposed to have done, there is a common belief that it was related to the appearance of the CX95 document on Geocities.

This question was never put to me. I am extremely angry at ever having been arrested, I find it ironic and interesting that my Bail was terminated on the same day that David Shayler returned to England.'

Britons held in Cuba

Seven Britons, six male and the girlfriend of one of the accused were detained at the State Security prison, Cuba, under suspicion of Spying. Having entered the country on tourist visas they carried sophisticated surveillance equipment, including miniature cameras, directional microphones and video recorders. They were discovered by the Cuban security services.

The men, described as Private Detectives, were recruited by a London Solicitor to undertake round-the-clock undercover surveillance on a Cuban businessman suspected of marital infidelity.

It has been suggested that the group were spying on sensitive sites to provide information on Cuba's sensitive

network of outdated Soviet-built power stations currently being refurbished.

The six men work for SIP Investigations situated in Snaresbrook, East London.

The group were later released without charge after being detained for some time. It is thought that efforts by the Foreign Commonwealth Office and the British Ambassador were successful in securing the release.

British Television Crew held as Spies.

Following the arrest of a Channel 4 insight team, two Britons, a South African and two Sierra Leonean journalists the Liberian Government agreed to drop charges of spying in exchange for an apology.

The documentary was to cover the subject of 'blood diamonds' which may have been a somewhat sensitive subject.

A chorus of international appeals for the journalists to be released were made by persons such as Nelson Mandela, Rev Jesse Jackson, Former American President Jimmy Carter.

The dropping of the charges saw the release of the accused who flew out of Liberia shortly after.

There were reports of the four journalists suffering "mental abuse" whilst being held at the headquarters of a Criminal Investigation Unit, the National Security Agency.

North Korea spies released.

63 spies from North Korea have been released after serving terms of up to 45 years in South Korea

North Korea has not promised to return any prisoners of war.

Trades Union for Spies?

Disgruntled intelligence officers, Richard Tomlinson and David Shayler might not have had a mandate to release secrets to the media if another method for them to air their grievances existed.

A working party staffed by members of MI5 and MI6 as well as Trade Union representatives from the Civil Service Unions are reviewing a change.

In the event of a Trade Union being set up for the agencies certain criteria would need to be set. For instance due to the National Interest angle strike action could not be carried out and Union officers would most certainly be past or present employees of either services. It is envisaged that these officers would be able to campaign for health and safety and other employment matters as well as representing staff during disciplinary hearings.

A similar scheme is already in existence at GCHQ since the Union ban being removed in 1997.

Dodgy Software causes spy problems for Canada (and others?).

A program called 'Promis' has been sold to various countries, including Canada, Britain, Australia, South Korea, Nicaragua, Iraq, Brazil, Chile and Columbia. The program was apparently modified to produce a 'trapdoor' through which foreign agents could eavesdrop.

The Royal Canadian Mounted Police, RCMP, are investigating allegations that American and Israeli agents have done just that.

Canada already shares certain intelligence with the US and Israel, but there will be economic intelligence, financial intelligence, international relations and matters affecting anti-terrorism that Canada would not wish to share with others. The investigation is said to be undertaken by the National Securities Investigation Section of the RCMP.

Promis was developed as case management software and also has applications for intelligence agencies as a surveillance and investigation files tracker. This software was developed by Inslaw Inc. a Washington based company that alleged the US Government had stolen their software and then sold pirated copies to intelligence agencies world wide. A resulting court case in the US upheld a proportion of Inslaw's claims of software theft and of evidence that the US Justice Dept had used "trickery, fraud and deceit" to steal the Promis Software. This ruling was over ruled but not before a former Israeli spy Ari Ben-Menache alleged that the software had been modified with a 'trap door' to allow American and Israeli agents to spy on those who used the software.

The Canadian government had never purchased Promis but it appears that some departments were running it, although officials claimed that there had been a mistake about the name of the software used. The Canadian Security Intelligence Service, CSIS, refused to discuss what software they used or their awareness of the RCMP investigations.

The RCMP managed to debug their computers in 1994 after 10 years of secrets were alleged to have been tapped.

Rafi Eitan, former deputy head of Mossad, claimed that the idea to fit the electronic trapdoor to the Promis software was his.

Robert Maxwell, the newspaper magnate, who was stated as being a Mossad agent after his alleged suicide, was instrumental in selling, in 1983, Promis to the RCMP by using a front company.

A computer expert, named as Michael Riconosciuto, publicly announced that he was responsible for the modification of the Promis Software for sale to the RCMP and CSIS. He has since been questioned by the investigating team as has Bill Hamilton, a co-owner of Inslaw Inc.

Following a double murder and revelations that the former Israeli spy Ari Ben-Menache had met Dodi Al-Fayed in London two Scotland Yard detectives have interviewed the ex-spy concerning the exchanges between him and Al-Fayed.

Vatican Website infected

The Vatican website was paralysed by a computer virus 'Navidad 1.exe'. It overrode protection from three mainframe computers, appropriately named after archangel Raphael, Michael and Gabriel, and paralysed the software.

The Jubilee site, set up for this year's Holy Year, was attacked and any PC's that downloaded from there were infected.

Enigma theft arrest.

A 57 year old former antiques dealer, of Sandiacre Derbyshire, was arrested and charged with blackmail and receiving stolen goods after the theft of the second world war Enigma encoding machine from Bletchley Park, Buckinghamshire.

After an appearance at Milton Keynes magistrates' court he was bailed to reappear on 15th Jan 2001.

After being bailed the former antiques dealer claimed that he was only a go-between for someone of 'high office' who had bought the machine in good faith. The three missing rotors have been recovered by the police as a result of their enquiries.

American 'Researcher' gaolied in Russia for spying, then pardoned and released!

Edmund Pope, 53, a former senior researcher at Pennsylvania State University, has been held in Lefortovo gaol, Moscow, since 3rd April following his arrest by the FSB for spying.

Edmund Pope allegedly purchased the plans of a new high speed torpedo developed by the Russians.

Allegations have also been made since the unfortunate loss of the Kursk that spying had a part in its loss. The torpedo suggested as the device that sank the Kursk is also stated as the same type that Pope had bought the plans of. The Russians have also stated the possibility of a spy aboard the Kursk at the time of the accident. In addition to the gaoling of Edmund Pope, the head of energy and power systems at Pennsylvania State University, Daniel Kiely, was also detained for questioning. His relationship with Mr Pope was spotlighted whilst he was briefly detained. Edmund Pope's wife, Cheri, and a Congressional Representative, John Peterson, visited Pope as well as lobbying to have Mr Pope released from gaol.

In his subsequent trial, ending early December 00, Mr Pope, an ex Naval Intelligence officer, was gaolied for 20 years.

On Thursday 14th December 00 it was announced that Mr Putin had pardoned Edmund Pope and that Mr Pope had been flown to Ramstein US Air Force base.

MI5 sued for bugging a car used by Sinn Fein leaders

A bugging device that was able to allow MI5 to track the vehicle was discovered hidden in the roof of a Ford Mondeo used by Sinn Fein leaders.

The technically advanced device was equipped with antennae and a digitally enhanced transmission device.

Also fitted was a digital tracking capability, presumably GPS, for satellite tracking.

The output is claimed to be applied to a linear amplifier to boost the transmit power.

A microphone had been concealed in the skin of the car as had additional wiring.

Fitted with rechargeable batteries the device was voice and remote operated, allowing deactivation to conserve power.

The court action, which is being brought by the owner of the vehicle, demands exemplary damages for breach of privacy.

Pat Pottle dies.

Pat Pottle, who along with Michael Randle befriended the Soviet Spy George Blake, eventually springing him from Wormwood Scrubs prison has died aged 62.

Both Pottle and Michael Randle were tried for their part in the escape but were acquitted by the jury.

They had met Blake whilst serving sentences for anti war campaigns

It's a briefcase not a laptop.

Following the previous spate of losses; laptops left in restaurants or stolen within railway stations; the latest loss of secrets to hit the Secret services is the loss of a briefcase left on a Dorset Train.

Despite a telephone call to Police and the subsequent searching of trains and stations the briefcase, apparently full of restricted documents remains lost. A Security Service risk assessment revealed that there would be no breach of national security although a Home Office spokesperson has urged any finders to hand the case to their nearest Police Station.

Thanks to J for report

PLEASE SEND NEWS ITEMS STATING SOURCE AND DATE TO ENIGMA 2000 VIA EMAIL

RELEVANT WEB SITES

<http://www.codexdatasystems.com/menu.html>

<http://www.usatoday.com/life/cyber/tech/net019.htm>

<http://webhome.globalserve.net/rlacroix/jammers/jammers.html>

<http://www.foxnews.com/scitech/113000/numbers.sml>

<http://dSPACE.dial.pipex.com/brogers/page2.html>

This offering will only be enclosed once, enjoy:

<http://www.tess.demon.co.uk/mi5/>

REQUESTS.

[Thanks to those who responded with info on 'Merod' and Chirpsounders and on the M6 enquiry, still live at the moment].

Radio Enoch was a 'pirate radio station'. We have had a request for any person with particular knowledge of the station, web sites, news cuttings or any other information to contact ENIGMA 2000.

Info required on things that go 'Buzz' in the frequency ranges 1900 to 3200kHz around the UK.

Info required concerning a turning off the M6 motorway [UK] noticed on the west side whilst proceeding north between Preston and University of Lancaster. A sign reads "Works Unit Only Unauthorised Entry Will Result In Prosecution.

The road is 7.4 miles before Junction 33 on the M6, Northbound.

This is strange, as there are no side roads leading off from motorways. What is at the end on these roads situated in rural farmland? No gate exists.

Do you have any Embassy buildings or other buildings sporting large antenna arrays in your everyday

surroundings? If you do, you might like to pen an article about the building and its possible use.

ENIGMA 2000 would be most interested to hear from anyone who lives or has travelled overseas with their radio to monitor number stations.

Please make your requests via e-mail or the usual pager number.

STOP PRESS

ENIGMA 2000 would like to hear from any one wishing to pen the ODDITES column.

ENIGMA 2000 acknowledges the assistance given by those who wish to remain 'anonymous'.

****COMPLIMENTS OF THE SEASON TO ALL OUR READERS****

CONTRIBUTION DEADLINES FOR 2001 ARE AS FOLLOWS:

Issue 3 Feb23
Issue 4 Apr26
Issue 5 Jun27
Issue 6 Aug27
Issue 7 Oct26
Issue 8 Dec17

Please note that all items intended for publication in the next ENIGMA 2000 newsletter should be received in good time. Please send your articles, news items and requests via the above e-mail address. Please indicate if you wish to be contacted direct. If you wish to be credited with your article please indicate, otherwise all work will be treated as 'Anon'.

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