ENIGMA 2000 NEWSLETTER **http:\\reachus.at\enigma** **Mar 01**
Articles, news reports and Items of interest: **e2k_news@hotmail.com** **Issue03**
"NOW CALL US"

Well, here we are again, the 2 months since Issue 2 have flown by.

Your editors have had a very busy time dealing with the incoming information and again say "Thank You" to all those submitting.

It was not so very long ago that there was much comment regarding the diminishing amount of Number Stations and "not a lot happening" on the scene.
The past couple of months have proved otherwise and turned out to be quite exiting for us Numberists, and the ENIGMA 2000 monitors were "on the ball" as usual.

Here are the highlights (more details, where available, appear in the relevant section).

E25 NEW STATION, appeared late December 2000, being logged daily. It appears to have 2 formats and has been added into the latest issue of the ENIGMA CONTROL LIST.

E15 After an absence of some 6 months it "popped up" again on 31 Jan in its 1400Z slot and was reported by 2 monitors.

E06 Has reverted to the "original" male voice.

E07 Has changed to a "new" male voice.

V02 The possibility of format change/addition not totally discounted. (Article in Newsletter)..

V07 Has changed to a female voice.

M52 After 2 year absence (?) was logged on 12 Feb.

XSL is the classification of the peculiar 'Slot Machine' regularly heard in the US.

Our "Stations" editor informs me that the Morse Team co-ordinator has most recently issued watch lists to new Morse monitors. We still need more Morse 'literate' monitors to volunteer their services. [Contact our Morse co-ordinator via the email address given on pop up on web site, seen when clicking on 'Morse Short List' or 'Profiles'].

See you all next time around and good monitoring.

Contact as ever via the usual e-mail or pager numbers given in this newsletter.

A message panel has been added to the last page.

MORSE STATION NOTES

Unless there are a lot more logs sent in, these will probably be the last Morse Station notes. There has been very little apparent interest shown in them, and only 1 log has been sent in. The writer of these notes seems to be one of the very few logging morse stations. It seems very strange, as when the Morse Station Notes are updated on a web site, there have been at least 170 visitors to that page. A lot of listeners want information, but no one is willing to send in logs or information.
Is the NL read by any listeners in the USA. If so do any of them have a record facility? It would seem possible that some of the transmissions heard in the mornings in the UK, might be heard over in the USA. We are asking this, as New York, and Gander Radio on 6605 are usually at about S7 at 0800 UTC. If anyone is interested information can be supplied as to possible stations on at that time.

Divided into 4 parts this issue.

1 Profile of M3.
M3. Modes usually ICW a few use MCW

Ref	Call	Preamble	Message	Ending
M3	044/00 (R5)*		No Message	= = 000
M3	044/54 (R5)*	= =	54x5F	= = 000
M3A	552/111/00(R5)*		No Message	= = 000

(R5)* rarely are (R10) Morse is sent at about 17 WPM except for 503 which is very slow at 5 WPM. That transmission is normally on 10620 Monday at 0800 and 10720 0900 on Tuesday Some transmissions sent in MCW. Has been since August 2000, sending shorter messages of 30 to 36 groups. These are starnge as both the first and last 2 groups are 77777.
There are 2 regular null transmissions. One is daily at 1630 on the following frequencies.
4180 November to January 5830 September October 7256 May to August
Saturday at 0800
7256 8187 9272
M3A is not sent very often and the meaning of it is not known could possibly be confirmation of receipt of message.Only triplets of 111 and 333 have been noted.
When M3 send a message after the 54x5F groups the ID is sent again 6 times then the message is repeated as 54x5f groups. 54 single groups
Is Usually on between 0700 and 1200 on the hour and the half hour.Messages are usually between 50 and 59 groups, possibly so they fit in the 30 minutes transmission time.There have recently this year (2000) been some strange messages sent, with group counts 30 to 35. These messages always start and end with the groups 77777 77777. Repeat transmissions are usual. Frequencies that have been used are.Those in brackets in use at present. These frequencies do change from time to time, so it is worth listening through all of them.
3060 3250 3392 3450 3823 3923 4015 4090 4465 4610 (4722) 4750 (4780) (4870) 4900 5050 5090 (5120) 5150 (5180) 5220 (5360) 5365 5409 5550 (5520) 5610 5625 5670 (5830) 5860 5870 (6330) 6334 (6430) 6540 6640 6750 6810
6840 6850 6905 6950 7208 7255 7276 7444 7540 7580 7620 7649 7670 7710
7820 7830 7840 8033 8037 8100 9030 9272 9180 9950 (10250) 10270 10540 (10620)(10720)
IDs heard to date
010 011 012 013 014 015 016 017 018 019 035 038 040 041 042 043 044 045 047 048 121

182 183 211 214 216 282 284 287 312 317 493 496 501 503 507 508 552 553 554 558 581 584 621 624 629 741 742 743 857 971 976

As you can see, this was a very large organisation, but during the last year activity has been reduced. The only IDs being active at present are 011 015 017 040 041 186 211 287 552 624 743. The regular daily sked at 1630 to 287, will move to 5830 in March. The regular Saturday sked at 0800 to 624 will move to 8187. Any logs of other IDs active would be appreciated. They are still repeating messages on an annual basis. It seems very strange to send the same message once a year for several years. They are also still sending the same odd messages, with 77777 77777 as the first and last groups. These messages are usually 30 to 35 groups long. Soon after these messages have been sent, the ID is no longer heard. Possibly they are closing down messages.

2. Stations not heard recently.
Some of these are very erratic and may not be heard for many months at a time. It is quite possible that they may appear again.

M26 98 station. Has been heard on 4106 with // 2961. Is a very erratic station, can go for months without being heard, then will be on continuously for a week. Format is similar to following, heard on 22 October
1740 99 10508 Repeated until
1800 99 10672
1830 99 10614 99 40618
1920 99 20512
2000 92 32
2010 99 10514
2012 34 34 34 8x5f Groups
Has not been logged for some considerable time

M34
11 12345 2 Fig IDs, No ending, only log on 2 March 1998 at 0820 on 5040

Format is
Call 11 27 R5
11 11 11 13x5f single group message
11 11 11 Same message repeated

27 27 27 13x5f single group message
27 27 27 same message repeated No ending
Machine sent at 15 WPM, using long zeros. Note that the second and last group in the message are the same. Not been heard since then. Seems to have no regular skeds.
M50. this has not been heard for some considerable time. It is thought that the frequency was being used for training purposes, as the messages were all 50 groups, and the hand sending was very bad.
M52 2Figure 6 Figure. Another station that may be on at any time.Again when it is on can be on for days continuously. Thought to originate from Norway. Heard on 5 November 1998 on 4802. Format is
2000 11 II 253257 253257 253257 AR
2015 12 II 254987 254987 254987 II 99 AR

Log of Friday 19 February 1999 1900 to 2100 on 4801 sending
24 II 854957 854957 894957 AR

Logged again on 28 July 1999 on 5694
36 II 511919 511919 511919 II 29 II 222 AR

We have been asked to include the following information on M16 and M51.

M16 8BY Mode ICW. Uses long zeros.
  Call IDS
VVV VVV VVV 8BY 8BY 8BY 605/432/679/236
The IDs can be any number up to 12, they can remain the same for several transmissions, or change by having one ID go and leave the rest, such as 432/679/236.IDs are always in the same sequence. Transmission is at each hour+40 for 20 minutes.Up to 3 frequencies in parallel. It is thought that it is just a list of IDs that there is a message waiting for and the ID collects the message possibly on another frequency or by other means.
Can also use Q and Z codes
If no IDs sends QRU
Example of ZKY= 142 825 047 ZKY/759
Example of ZCC= 142 047 ZCC 11 18/439 ZCC 10 16/306/146
Frequencies in use are,
7668 10248 12075 12170 12283 14433 14925 14931 18415 20946

Recent Logs. 7 January
0950 14931 18145 20946 8BY 652 511 084 ZKY
1050 Same message.
1840 14931 8BY 880/921/612/912
9 January
2040 7668 14531 8BY 687/663/893/445
10 January
1040 10248 14931 18415 8BY 923/505/463
1240 10248 14931 18145 8BY 605/564/914/364
11 January
1045 10248 14931 18145 8BY 682/605/015
1355 10248 14931 18145 8BY 391/037/434/302

M51 100 Letter group station. Can be on at any time on any frequency. The
the start of it has never been logged, so it is not known if there is a call. It has been heard starting on a new frequency during the day, but as expected, started in the middle of a message. Sends messages of 100 5 letter

groups, can be on air for up to 5 hours. A message sent one day for example NR 89 if sent the next day is a different message. serial numbers run from 1 to 90 and then starts 1 again.

Message header is Serial Number of message, First letter of the Month, Date,
Time, which is always 1 hour ahead of UTC
= NR 54 J 9 10:42:37 =

Has been heard to end with 579 sent 60 times

Recent logs, 2 January 0904 4030, 3 January 1830 5280, 8 January 0900 5220,
9 January 0800 5480, 10 January 1300 5220, 11 January 0820 5220, 18 January 6925,

3. To help you identify stations, here are the formats of most covered in these notes.

Short list of formats. See morse station profile list for longer description

Notes R4= Repeat for 4 minutes 5F= 5 Figure paired groups 5f 5 Figure single groups. Short 0 Long 0
197x3= Repeated 3 times // Parallel Frequency. Figures in calls and preambles are only examples

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

M1A 197 197 197 58003 58003 Repeated several times

M3 044/00 (R5)* No Message = = 000
M3 044/54 (R5)* = = 54x5F = = 000
M3A 552/111/00(R5)* No Message = = 000

M4 LO LOx3/75977 75977 100x5f Always 100
LO LO/75970 75970 Repeats Message AR SK AR SK

M7 Special tones R1 Same after end of transmission
749 749 749 85 85 35 35 = = 35x5F = = 85 85 35 35 000

M8 Mode ICW. Uses Cut Numbers
T 0, A 1, N 2, D 3, U 4, W 5, R 6, I 7, G 8, M 9,
UAAMD MDUUA UAIAU R3 UAAMDx5 = = = 150f Cut
After first message sends AR AR AR MDUUAx5 = = = 150f Cut same after second message
Ends AR AR AR SK SK SK

M10 555x3 571x3 46 (R5) 571x3 75 75 46 46 = = 46x5F = = 75 75 46 46 000

M12 Call Preamble Message Ending
749 749 749 000 R5 No Message
749 749 749 1 R2 1573 143 1573 143 143x5f Pause 000 000
749 749 749 2 R2 2 Messages

M13 261 R5 = 189 22 = 22x5f ID sent x12 = 189 22 = 3 long dashes
M13A Format is the same only the ID is sent as
847 847 847 000 R5 Repeat is 4 times

M14 560 R4 245 245 161 161 = = 161x5F = = 245 245 161 161 00000
M14A Sends 2 messages, after first message repeats ID for 2 minutes

M16 VVV VVV VVV 8BY 8BY 8BY 605/432/679/236

M23 00000 R3 To 20 = 30 30 = 33x5f = IMI IMI = 30 30 = Sometimes ends AR
Call can also be 2 or 3 figures or letter I for 45 seconds

M24 same format as M14 but sent at high speed 30 to 40 WPM

M29 VVVx2 De VDEx3 R5 VVVx2 De VDEx3 = = 73 73 37 37 8 8 1900 1900 37x5f AR

M39 458 458 458 76621 76621 Repeated 4 times
Period of dashes
458 458 458 73309 73309 Repeated 4 times

M40
VVV CQ 747.135 R5 CQ135 CQ135 CQ135 HR HR 18 18 = = 18x5f AR AR RPT RPT
VVV CQ135 CQ135 CQ135 HR HR 18 18 = = 18x5f Message repeated Ends AR AR VA VA

M45 Similar format to M1 but is sent much slower at 12 WPM

M51 100 Letter group station. Call not known
Message header is Serial Number of message, First letter of the Month, Date,
Time, which is always 1 hour ahead of UTC
= NR 54 J 9 10:42:37 =

Has been heard to end with 579 sent 60 times

M76
Call, 4 Digit callsign De 4 Digit callsign. They can be a mixture of letters and figures. It does use accented letters in the callsign. So far noted U ..-- and A .-.-
Only sends the callsign 3 times, then QTC 96 23 = 23x5f Ends AR Long zero

M83 XXXX DE XXXX QTC AR
XXXX DE XXXX QTC 220020907 220 the serial number 02 the date and 0907 the time UTC+2
Callsigns can be a mixture of letters and figures, often changed
Variations
XXXX 4 digit callsign sent continuously
XXXX 4 digit callsign + number of Vs sent every 15 minutes

Further information can be obtained from Cherry Ripe crripwnr@supanet.com

4. Station notes
M1 Will change to ID 463 on 1 March. Sunday 0700 6508, Tuesday and Thursday 1800 5474, 2000 5017. Saturday 1500 6261. Message group counts, at present mostly in the low 30s, has gone as low as 28, with the occasional 40 groups.

M1A As well as the usual M1A end of Month transmissions, on the last Thursday and Saturday of each month, there have been other logs at strange times.
Logged on Monday 18 December at 1000 on 8187, ID 636 and Tuesday 19 December on 5220, ID 994. Both of these were using ICW as the mode and Bug Keys as opposed to the usual pump handle key. Were these possibly training exercises. It is not at all easy to find these transmissions, as they come up on any frequency, and there are long pauses between the components of the transmission.

M1B A new sked has been found, on Tuesday and Thursday at 0805 on 4866. A new record group count for M1B started on 1 January, 79 groups.

M3.Most activity seems to be on a Tuesday.

M4. Still no signs of this one, although there is a carrier put on the sked frequencies for the length of time the transmission takes. Possibly they are going to use those frequencies at some time. Most likely to be another voice transmission.

M7 Non of these heard since the last NL, needs someone to monitor these transmissions. This could be quite a job as they can start at any 10 minute period during the hour. Although they use the same frequencies, there are a large number to listen through, that have been used in the past. These are listed in the Morse Stations profile list Another problem is that the call up is only 1 minute, with the ID being sent 3 times.

M8. Can be heard at the start of each hour in the mornings. Has recently started sending 2 transmissions at the same time. Frequencies in use are,
7582 8010 8079 8137 8187 9064 9154 9239 9333 10127 10236 10447 10874 11433.
M10 Still plenty of activity. Information on skeds can be supplied to anyone interested. The usual 1630 transmission on Saturday Sunday Monday and Wednesday still uses the same 4 IDs 571 275 049 435, Other IDs are 619 071 127 447 801 968 and 652.

M12. The additional M12 information in the last NL was very much out of date. Most of the IDs shown are not active. The special ID 749 now transmits a message on Monday Tuesday Wednesday and Friday. No transmission on Thursday, Null transmission on Saturday and Sunday, 1700 6782, 1720 7657, 1740 8173. Friday has seen a recent increase in activity, transmissions being heard at 1940, 2050, 2110, and 2 at 2140. Some of these only appear for a few weeks, so it is hard to keep track of them. Remember that when a message is sent, it is on 3 frequencies, 20 minutes apart, going from higher to lower in the evening. The null transmission is only sent on 2 frequencies. They are starting transmissions at any 10 minute period during the hour, as the call up is only 2 minutes they are not easy to find. Frequencies used are normally in the fixed service part of the band, but can be anywhere from 3200 to 19000. Another problem is that many of them change frequency each month.

M13. Still very active, they can be heard most evenings. There are also probably many repeat transmissions in the early hours of the morning. There is a large list of loggings for M13, also a prediction sheet for the next month is available on request. Another interesting thing has been found out about M13B, when it uses a type A call, with the 3 zeros, then the message is always 20 groups. Possibly indicates a null message.

M14. Only 1 log, Tuesday 23 January 1820 on 4638.
M14A. Still continues with the 1 regular transmission on Friday at 1900, frequency changes but is usually plus or minus 4620.

M23. Still continues to send the same messages, one was started on 27 September 1999. Sked is 1030 and 1600 on 7795. Does not always appear every day, and also can be late starting. The 1030 sked has been logged as late as 1057 start. Has started on January 15 sending new messages after sending the previous ones for 15 months. Some new IDs 020 202 462 466 828. Some of the old IDs are still being used. 482 logged on 29 January, with a message of 47 groups that was first sent on 29 September 1999. Some of these old messages can be several weeks before they are repeated again.
The other sked at 1058 on 7800, is another erratic one. Can have a period of frantic activity and then not appear for several weeks. Last week in January, came up with some new IDs 66666 and 88888.
The usual sked at 0800 and 1400 on 3807 // 9285 continue. ID 579. There have not been any logs of other 3 figure IDs, since the last NL

M24 Some of these are being logged in the USA, as they cannot be heard in Europe it is suspected the transmission either comes from the USA or a ship near the coast.

M24A 2 Regular transmissions still, Monday 1900 on 4490 ID 263, Wednesday 1900 on 4970 ID 362. Both send 2 messages, group count of both are between 140 and 150.

M29 The Monday and Tuesday morning transmissions now seem to be using the same frequency as last year. This will make it easier to find them. The also can be on at other times during the day with one off transmissions. On Tuesday 9 January at 0700 there were 2 transmissions art the same time. One on 5310 and the other on 5610, one sending faster. It is quite possible that these 2 transmissions will be on in February. There was a recent log on Spooks of one at 1500. These can only really be found by chance.

M39. 1 Logged on 24 January at 2000 on 4108, 357 357 357 99283 Repeated 9 times pause 357 357 357 99623 99623 Repeated 9 times. These are difficult to find as they may be on at any time and on any frequency

M40. Still some being heard. Some logs at 1030 on 10620 of 747. The 515 ID has not been heard since the last NL.

M45. Will change frequency on 1 March. Will be 4555 and //4955 ID 555. Will remain on those freqencies until 1 May.

M51. Still quite active with its endless 100 group messages. See the information included in this newsletter.

M76 Still audible at present. May possibly change frequency to 3280 on 1 March.
It lost its chirp on January 5 , but it was back again on 6 January.

M83. Not active daily but is still around. Keeps on changing frequency. Logged on 25 January, 2 on at same time. 0832 on 5050 TR2F DE CH8N QTC 225 30 30 25 0932.
0836 on 5520 PV6R DE ADQZ QTC 6 20 25 0936

See also 'STOP PRESS' for up to date morse news

SELECTED VOICE STATIONS

Firstly unidentified transmissions from IB in Chita; the first sent on 27/12, the second on 04/01:
[Had E15a assigned provisionally but on investigation it bore no resemblance to E15 classification. Now provisionally E25, which may change when station habits fully known].

1451Z to 1507Z 27/12 9450kHz AM OM/EE/4F

222 222 222 …….rptd for 2mins
message 1 message 1 message 1
5431 0013 5210 7610…….QRM…….9535 4370 5210
end of message
message 2 message 2 message 2
4314 1191 1610 0841 3767 3160 6189 8396 1376 1502
0635 8076 9323 7150 1183 7675 1247 7154 1610
repeat repeat repeat
4314 1191 1610 0841 3767 3160 6189 8396 1376 1502
0635 8076 9323 7150 1183 7675 1247 7154 1610
end of message
end of transmission

1352Z to 1354Z 04/01 9450kHz AM OM/EE 4F

OM sent 4F in English with strong Arabic (?) accent:

I heard only:
...10 0572 8492 6769 0944 7612
end of message
end of transmission

[Very weak signal].

Simon Mason has posted MP3 files of the station on his site and informs us that the station can also be heard at 1245Z as well.
[SM-tnx for info].http://www.btinternet.com/~simon.mason/page410.htm
Various successful attempts were made to catch this one on 16/01. The signal was poor and apparently jammed at 1355Z when a hetrodyne tone came up on freq obviating the entire transmission.

ENIGMA 2000's South West monitor made this remark:
"E25, The 4 reports on yesterdays TX all indicate a poor signal (N Russia, UK, S Italy, Eastern Germany). Somebody must be getting this as a clean signal."

For further information on this new station, and the way in which its transmissions have evolved, see E25 listing.

Yet another apparent unknown was heard, this time by Ary [N&O] 2309kHz 25/01 2045Z to 2100Z
He reported, via the Spooks reflector: "I have put a sound sample on the N&O website of the station that I mentioned last night. It transmitted on 2309 kHz from ca 2045 UTC and closed down at 2100

UTC. Every minute a new message in an unid language."

See http://home.luna.nl/~ary/ to hear the .wav sample
However the station is probably Polish, Ary informs us later, with the call-up UWAGA [attention]. Nonetheless, would any Polish speaker reading this please listen to the .wav and share with the others what they hear. See also N&O33

Another possible unknown has been heard on 4760kHz 2134Z 16/02 by Gary Sawyer who describes it as: "a deep male slightly robotic voice. It's on the BC frequency for ELWA Monrovia." Could it be E07?

On 1st Feb BBC1 showed the film 'Mission Impossible'. Apart from D of Kent did anyone else notice in the scene involving the lift, the label with the word POZOR clearly marked upon it?

Onto the listings:

E03a Had not been producing very good results in Great Britain over the past December. On 15/12 at 1300Z barely managed to reach S3[start-up missed] whilst the previous 1300Z transmission on 08/12 was barely audible at all.
However on 28/12 reception was markedly better and allowed almost a full observation of the entire transmissions between 1000Z to 1300Z. The start up of the first parallel transmission was missed but at least confirmation of the missing frequencies [not actually missing at all] was gained. It was noticed that the transmissions 1100Z to 1300Z inclusive started at H+02 and finished at H+44mins.
The barometer showed a depression of some 0.5" to 29.3" at this time. On 29/12 the barometer had risen 0.25" and only the 1000Z transmission on 20474 was barely recognised, the tune occasionally breaking through. Rest of the transmissions for 20/12 remained 'Nil Required Heard.'
The full 1000Z to 1300Z transmissions were heard on 01/01 and although the 20474//23461 transmission were weak [around S1] 18866 had risen to S8 for the 1200 & 1300Z transmission.
The 1300Z transmission on 18864 04/01 was particularly good in South London at S9 whilst it was reported from Sweden as being weak.

Schedule: Sun to Fri, [0000Z transmission first, ends 2300Z]

1000Z	20474//23461	[98523 02/01]	[98523 10/01]	[28136 16/01]	
1100Z	18864//23641	[90671 28/12]	[78111 10/01]	[60619 11/01]	
1200Z	18864//23461	[83963 28/12]	[68357 10/01]		
1300Z	18864//21866	[16990 28/12]	[80605 10/01]		[77234 02/02]

the rest of the schedule [not usually audible in GB] is:

0000Z	18864//21866	[96171 16/01]	
0100Z	19884//21866	[60619 18/01]	
2200Z	18864//24644	[96171 17/01]	
2300Z	18864//21866	[02169 15/01]	

[All freqs 2200Z to 0100Z heard by JM in US]
Previously scheduled freqs: 17499 & 22108kHz apparently silent.
On 17/01 SD in Australia posted the schedule, confirming the above.

E05 on numerous freqs at scheduled times. Note clash with E03 [6959kHz] on 08/01 2200Z on freq of 6960kHz. Call 634 Count 146 925/47

9265kHz	2227Z	01/01		
5390kHz	1923Z	06/01		
9219kHz	2200Z	16/02	491	
4635kHz	0200Z	17/02	697/235 //5812kHz	
7620kHz	0300Z	17/02	//9204kHz	
13444kHz	1800Z	17/02	592/125	faint sigs

E06	4865kHz	2200Z	25/01	[937/00000]	
	5355kHz	2000Z	16/01	[615/00000]	Tone at start then 7m break, up at 2010Z

	5770kHz	2145Z	12/02	Quality transmission, sl hint of echo.	
	5777kHz	2110Z	05/02	[927/00000] Null Message	
	9225kHz	2010Z	25/12	[531/00000]	
	10170kHz	1500Z	13/01	[674/00000]	1400Z 27/01 [674/0000]
	10660kHz	1330Z	27/01	[956/00000]	
	11050kHz	1500Z	11/02	192-478/131 47931	
	13380kHz	1400Z	27/01	[674/00000]	
	13860kHz	1400Z	11/02	192-478/131 47931	
	16215kHz	1500Z	15/02	192-478/131 47931	
E07	5900kHz	2120Z	08/01	[985/000]	
	6965kHz	2100Z	15/01		
	5102kHz	2140Z	15/01		
	7920kHz	2100Z	05/02	[970/] 12/02 [970/] poor quality Note: Male voice	
	6730kHz	2120Z	05/02	[970/] 12/02 [970/] better tx	Note: Male voice
	5090kHz	2140Z	05/02	[970/] 12/02 [970/] excellent tx	Note: Male voice

E10 - FREQUENCY USAGE - UPDATE

Widely reported to transmit from Israel (and possibly other locations) these are one of the easiest and busiest voice set ups around. With continuing problems in the Middle East I thought it might be worth updating the call sign and frequency information. Most stations can be heard in Europe between 17.00 and 02.00 UTC on a vast range of frequencies but do operate around the clock.

Using the article in ENIGMA Issue 17, and logs from the 'Spooks' database plus my own logs I will attempt to produce an up to date snapshot.

High - traffic Stations;	ART EZI JSR KPA PCD SYN ULX VLB & YHF
Low - traffic Stations;	CIO MIW
Non - traffic Stations;	BAY GBZ HNC OEM NDP ROV TMS ZWL

<u>High traffic Stations</u> - commence on the hour & half-hour, only calls assigned to these frequencies are used and none are interchangeable with any other call.

ART	EZI	FTJ	JSR	PCD	ULX	YHF
3417	6840	2628	2270	3150	2743	2844
5437	9131	4463	5091	4270	4880	3840
6986	11565	7358	7540	6500	6270	4560
	13533			8805	7760	5820
	15980					7918
	17410					9202
	19715					10648
	20474					
	21930					

Comments:

PCD 8805 is quite new, 6500 (another PCD freq) is home to a very strong wide band 'jet' signal in Western Europe and anything under it is inaudible in the UK. 8805 may be a supplementary frequency.

YHF 9402 seems to have moved to 9202 - according to my own recent logs, probably due to Radio Bulgaria now using 9400 in the UK evenings.

FTJ 7322 seems to have been replaced by 7358.

<u>Low traffic Stations</u> - Due to frequency usage SYN KPA & VLB are included with CIO & MIW in the following list, all five stations share frequencies.

Transmissions start at the following minutes past the hour. +15 KPA MIW, +45 CIO SYN VLB.

The list of frequencies used is vast and depends upon the time of year. All of the following are known to be used to carry any one of the five calls.

2120	3090	4015	5170	6370	7445	8025	9270	10125	12376	13190	[14000
2515	3270	4165	5230	6658	7605	8127		10352	12747	13921	[14750
2540	3485	4360	5339	6745	7613	8465		10820	12950		[14866
			5380								
2953	3640	4665	5530	6912	7811	8641		10970			[15016
		4780	5629								[17170
	[17966										

Comments:
I did think 15016 was now defunct? [Due to complaints by USAF]

14000 appears on the 'Spooks' list as SYN & ZWL, all in all 14000 is an interesting frequency. I did log ZWL on 7000 one evening in the Summer and now wonder if 14000 was an 'image' of the 7000 outlet caused by mixing at the transmitter site? this might also explain SYN getting involved too. 14000 therefore may not be the 'intended' frequency in use at all ?

Non traffic Stations - These calls do not have fixed start or end times.

BAY	GBZ	HNC	OEM	NDP	ROV	TMS	ZWL
5530	5170	4114	5339	6658	4604	4015	3940
		6575	6911		6438	5339	5000
						6911	5715
							7000
							14000 see earlier comments.

Comments:
It is probable that each call has at least two frequencies. Once again it is worth stressing that no low - traffic Stations or Non - traffic Stations share a frequency used by the High - traffic Stations which have absolutely unique frequencies.

Loose Ends? Clearly with such a large and complex operation things can go wrong, the most probable is that of sending the wrong call/frequency match. This may result in the odd log of a particular call appearing out of context.

The Spy Numbers Database contains over 8,500 + logs and again an occasional keying 'in' error as resulted in a few spurious frequencies e.g. 5880 ? is likely to be 4880 and 15533 is likely to be 13533 EZI. I have endeavoured to try and make a positive identification on all of these and placed them on the above lists back in their correct places!
I am however left with just a few that remain unresolved -
ABC was reported on 6428? This would seem to break the rules as 'A' is ART and no two network stations start with the same 'initial' call letter. CIO as also been reported on 8206 and 10400? Finally EZI is reported on 23740 & 23750 although I have personally never heard it go above 21930.

I hope this update will be useful. Comments and feedback on any aspects of E10 are welcome.
[Thank you for the contribution of this article].

E11	7820kHz	1030Z	26/12	zero message.
E15	14000kHz	1405Z	31/01	Bad sigs with CW QRM
E17	4783kHz	0215Z	16/01	243 243 169 169 00000 [ends 0245Z]
E18	5155kHz	2200Z	14/12	307 140 groups, 088 + 5Fgs. Note: LSB

E23 See previous issue2. May need use of Single Sideband to resolve. [Tnx M].

E25 See start of this section. Try narrow AM to assist with harsh BC QRM
9450kHz 1345Z 16/01 poor copy; for 447?

Log for 17/01: 1343Z Music up.

1350Z Station heard, 222 etc

1354Z message message [In part: 70 7517 5701 5751 1198 0978 0316

1359Z 227 227 .....end of message.

1359:30Z Music off.

'A better attempt today [18/01], I put the set onto usb which made a considerable difference 1.25kHz up. I also tried nfm, an improvement but of course the qrm from the nearby BC station [9455kHz] did cause some problems.'

On 18/01 E25a is heard on at 1240Z:
Music intro 5 minutes then:-
440 220 67 70 69 70
440 749 67 63 69 70
440 639 67 63 69 70
appeared to be alternate repeats, for 5 mins.

Then E25, new voice
440 R5,
Message Message Message, first 4f gp then music restarts and voice cuts out.
Restarts over music.
440 message
23 x 4f gps
repeat
23 x 4f gps
end of message
440-11 ???, 442-19, 449-20, 440-20, 442-19, 442-20, 442-19, 449-20, 442-19, 449-20, 442-19, 449-40, 447-17 ???
end of transmission
music stops 1259z

Then at 1340Z [18/01]:
It started up again at 13.40z, different music - this time with vocals and had a different voice to the 2 in the 12.40 TX, and a slower delivery.
13.40
music
13.45
222 R27, TX stopped
restarted 13.47
222 R17
13.49
Message x 3
19 x 4f gps
repeat
19 x 4f gps
at gp 6 of repeat the music restarted and another weak unid numbers TX

appeared in the background.
end of message
227-20 R9
end of transmission
13.56.

Other weak TX still going, unidentifiable, at 13.58 a strong Bubble Jammer fired up for 30 seconds.
'This little beastie is going to be interesting.'

Further observations disclosed a variation in transmissions as:

E25a transmission Friday 19/01/01.
1240 Carrier, no music, 1244 to 1249 745 71 72 repeated, no ending.
1340 to 1355 Nothing heard.

E25 transmissions Saturday 20/01/01
1245Z 9450kHz S5
440 x 33
1774 0124 2410 5140 0541 7457 9215 3140 4632 4413
1443 3543 1907 5194 4944 6976 9214 3602 2545 2302
7450 0140
Repeat, repeat, repeat
1774 0124 2410 5140 0541 7457 9215 3140 4632 4413
1443 3543 1907 5194 4944 6976 9214 3602 2545 2302
7450 0140
End of message
442 19 449 20 x 4
1256Z end of transmission

E25a 1332Z 9450kHz S7
905 19 x 33
1337Z transmission ends.

1340Z to 1400Z Nil required heard.

E25 transmissions Sunday 21/01/01

1245Z 9450kHz S5
As 20/01/01 1245Z transmission. [440]

1330Z 9450kHz S9
As 20/01/01 1332Z transmission. [905 19 different voice, live transmission]

1334Z end of transmission.

1340Z to 1400Z Nil required heard.

With exception 1534Z Chirpsounder on 9450kHz, nil required heard until close down 1600Z.
No transmissions heard on 23/24/25/01, heard again on to 1330Z to 1333Z, 905 21, 27/01 1245Z to 1250Z sending 725 nn 73 74 75 76
10/02 at 1245Z to 1250Z very poor sigs OM repeating 745 47 744 94 11/01 Nil required heard in South London. Still heard to date, if not a little intermittent. Times to check are 1230Z, 1245Z, 1330Z and 1345Z for around 15 mins. A carrier can sometimes be heard for 30s prior to transmission.

Observations on 17/02 revealed E25 transmitting at 1230Z to 1236Z.
274 x 22, 475 x 4 followed by 4f groupings x 20.

E25a follwed from 1246Z to 1251Z 17/02

745 95 96 x 22

In both cases the signals were atrocious.

Reports on this one please. See 'STOP PRESS' for additional 9450kHz useage news.

G04 4110kHz/2105Z & 4210/2135Z Dec [42668 24/12 S9]
On 28/12 this transmission was heard on 4890 and 4990. The 28 group message remained the same from 03/12. On 31/12 the groups were heard on 4110 & 4210 [S London].
On 04/01 freqs were found to be 4880 and 4980 at 2105Z and 2135Z.
HFD noticed that this freq is high for Jan, usually being below 3500kHz. [Jan00 freqs were 3440 & 3340kHz]. On 07/01 HFD reported that G04 was heard at 2105/2135Z on 4120/4220 kHz. "Lousy frequencies. I could hardly understand anything but the message seemed the same as Thursday 04/01 (26735...). On 4220 I could hear an overmodulated M29, too."
4120 and 4220kHz were used on 11/01. Audio was better in LSB and message same as that on 04/01 [reports AF in Eastern Germany – tnx]. Data and CW QRM from OST maritime on 4220kHz. 14/01 only 4120kHz at 2105Z heard GB. HFD reported 2135Z from Germany.
Feb freqs: 4280kHz/2105Z & 4380kHz/2135Z, 25 groups "60321 53271 77516 ..." no "9", reports Axel Kruse.[Anybody catch the E10/G04 clash on 4276kHz at 2105Z 04/02]?

G07	5376kHz	2110Z	25/12	742/000
	5081kHz	2130Z	25/12	742/000

May have changed day/freq/time since last year. Reported as not being heard in 2001 to date.

S06	6820kHz	2114Z	08/01	176/00000
	10830kHz	1600Z	13/01	724/00000
	10635kHz	1140Z	22/01	ends 00000 bad reception.

S6A	4990kHz	2000Z	05/02	671

S10E A good strong signal readily monitored in Great Britain on 10642KHz at 1300Z USB.
The transmission at 1300Z on 19/12 was an excellent signal. Transmission on 11/01 at 1300Z was also an excellent signal. The 6 day transmission cycles are expected to start <u>08/02, 08/03, 05/04.</u>
[Thursdays]. Logs required of this one please [and M10E the Morse equivalent].

S17C Continues daily at 1250Z for seven minutes on 8190//9385 with a strong, steady signal although around 07/01 the signals have been only fair with some background.

S21	7019kHz	1130Z	Thurs	AM	[nil required heard 11/01]

Parallel frequency required.

V02	9115kHz	0600Z	26/12	AM [start 0558Z 663/01 584/02 01/65 02/72]
	7890kHz	0200Z	27/12	AM

Can any one confirm 8186kHz [0700Z 18/02 Mark Slaten US] as a further V02 tx?

V02A [DGI Cuba]

Once again the debate about V02a headers has appeared on the Internet. There is no doubt that the last figure of V02a is a repeat indicator - as I have always claimed, and not a priority indicator. The examples given over the Internet do not relate to the term "repeat indicator", for they merely illustrate the standard scheduled repeat sequence, i.e. messages are <u>routinely</u> repeated one hour after the primary transmission, but on a different frequency - a characteristic found in certain other Families - so such indication is unnecessary.

There would be no logic in changing headers under such circumstances, not to mention changing the tape within 15 minutes ! The header suffix increases incrementally each time

the message is carried over, for example, on the following day. In such cases the same message is very often accompanied by one or two quite different messages to those which accompanied it on its first day. (These in turn, may or may not be carried over). It is correct to assume that the three messages are identical, but only in so far as the standard repeat sequence is concerned, i.e. as given in the examples chosen.

e.g. In the example: 0300 - "14011 70963 07761" means that message 1401 and 0776 are being sent for the first time, and message 7096 is now being carried over for a second time. All three messages are, of course, routinely repeated at 04.00.

This profile has remained consistent over at least 8 years, and I have 1000s of intercepts which prove this. However, a mere week's systematic monitoring should be sufficient for verification. Note M08 follows the same pattern, but V02 does not. Incidentally, header suffixes rarely exceed 3, even in this vast sample; none exceed 7. Further analysis is need to determine their frequency levels, but this would be very time-consuming.

If you would like examples or further clarification, please contact me via ENIGMA 2000. Hope this clears up the confusion. M.G.

V02A	12215kHz	0200Z	22/12	AM	16/02	0200Z	AM	
	12165kHz	0200Z	25/12	AM				
	6855kHz	0300Z	25/12	AM				
	5135kHz	0100Z	17/02	AM	0200Z	17/02	AM	usb South London GB
	5417kHz	0300Z	06/01	AM	0300Z	17/02	AM	
	4505kHz	0200Z	27/12	AM				
	4028kHz	0500Z	29/12	AM	0200Z	17/02	AM	
V07	9283kHz	0710Z	14/12	AM				
	10355kHz	0730Z	14/12	AM				
	11420kHz	0750Z	14/12	AM				
	9280kHz	0710Z	06/02	AM	[234]	Note: Female voice		
	10355kHz	0730Z	06/02	AM	[234]	Note: Female voice		
	11420kHz	0730Z	06/02	AM	[234]	Note: Female voice		

All V07 transmissions were preceded by a blank carrier and in the cases of the 0730 & 0750 transmissions part of the traffic. 0724Z/10355kHz ‘Uno, uno, uno’; and 0744Z/11420kHz Uno, uno , uno’ also.

V13	8300kHz	1500Z	28/12	AM	New Star Broadcasting. Flute tune. Weak with QRM. Heard in South London.
	9725kHz	1400Z	22/01	AM	New Star Broadcasting, Flute tune. Weak with BC QRM. Heard SW England.

XPH Dec freqs Tuesdays and Fridays :

[comments refer to transmissions on 29/12]

11024kHz	0700Z	ended 0704Z QRM speech splatter S9+
12224kHz	0720Z	ended 0723Z data QRM until 0721Z S9+
13924kHz	0740Z	ended 0743Z good clear transmission S9+

[comments refer to transmissions on 19/12]

6848kHz	2100Z	ended 2105Z S9+
6934kHz	2110Z	ended 2115Z S9+
5776kHz	2120Z	ended 2125Z S9+
5927kHz	2130Z	obviated by R.Prague transmission.
4637kHz	2140Z	ended 2145Z S9+

5359kHz 2150Z ended 2155Z S9+
[Open carrier always up on freq prior to traffic]

Jan freqs Tuesdays and Fridays :
[comments refer to transmissions on 16/01]
11462kHz 0700Z ended 0704Z S9+
13362kHz 0720Z ended 0724Z S9+
14362kHz 0740Z ended 0744Z S9 QRM from BC station, German lang.

6924kHz 2100Z 0-msg (hfd) 09/01
7447kHz 2110Z 0-msg (hfd) 09/01
5784kHz 2120Z 0-msg (hfd) 09/01
5735kHz 2130Z ended 2134Z*
4627kHz 2140Z ended 2154Z*
4557kHz 2150Z
[Open carrier always up on freq prior to traffic]
*monitored by AF

Feb freqs Tuesday and Fridays :
14890kHz 0700Z
15790kHz 0720Z
16290kHz 0740Z

7970kHz 2100Z
6745kHz 2120Z
5395kHz 2140Z

XPH freqs courtesy of VM and GD, thanks.
Re XPn freq 6865Hz 2100/2300Z Tuesday, mentioned in issue 2 resulted in 'nil required heard'. Would appreciate new freqs and/or times used for February/March 01.

Thanks to all those for their logs including Rob of Essex, GD, Mick of Strathclyde, D of Kent, AF, AK & HFD of Germany, Gerald of Sussex, K of Kent, S, C and M, SD in Au, also spy numbers robot.

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

ODDITIES

No reports, as yet, on the 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.

A report of a particularly nasty 'buzz saw' has being heard in the 5M band has been made. On 09/01 and 11/01 it sat on 5250kHz. The signal was approx. 30kHz wide with additional 'crud' 10kHz either side of the signal. The signal was first thought to be a time base from an errant television, but perusal of the signal disclosed that it consisted of a continual pulse train of two sets of 3 pulses, of equal amplitude, 1kHz apart but separated by two like peaks with an amplitude of around 60% and 80% of the others. It disappeared when the antenna was disconnected.
This signal also appeared on 7019kHz between 1125Z to1140Z, the actual spread was from 7018 to 7020kHz on 12/01 [D of Kent].
It was not prevalent on 10/01 but has been heard sporadically since. Any ideas, suggestions or reports of monitoring a like signal required please.

From the North of England a report of a signal using a one minute cycle and jumping within this freq range: 16095 12725 8460 6351 5435 3295kHz.

Another 'Oddity', this time from K of Kent. Heard on 06/01 at 1910Z, this repetitive signal was on 4700kHz. The signals consisted of :
Buzz [x6] for 3 sec
Tone [x3] for 3 sec
Pulse [x2] for 2 sec

Another like signal appeared on 14363.5kHz 1502Z and monitored until 1545Z 04/02.
Every 3 mins was heard: 3 tones and two buzzes. The exception was at 1517Z when a single buzz preceded the above described signal

We would be interested to hear from any monitor who has also heard these ‘anomalies’.

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’].
This was noted with a very strong signal in the U.K. at 19.20 on SUN 14.02.01 on 5600 kHz.
ENIGMA 2000 would be grateful to receive further details of the ‘Alarm’ or readers thoughts.

FADERS (XF)

Faders - A Shortwave mystery of many years standing, these peculiar stations fail to grip the monitoring community and other than mentions in the former ENIGMA Newsletter any references or information about them seems non-existent. It also may be the case that they only operate in Europe? They are an unusual but very easy signal to find on the shortwave bands - it is never easy describing a noise in a newsletter so my advice is monitor the frequencies listed and listen for a common signal. Best reception is noted in the afternoon and evening times in Europe. They are very busy. So what are we listening for?

Faders are so called due to their habit a 'Fading' from a high to low level of audio in a matter of seconds. It is quite easy to dismiss them as interference or just another odd noise. The fading effect is probably due to two or more stations communicating from distant locations. Once you find and recognise the 'unique' mode you will have little difficulty in locating the signal as you tune around. The signal has a number of peculiar habits and consist of a loud rasping sound not unlike that of a passing motorbike. The behaviour of the transmission is unusual in that all traffic is sent in exactly 7.5 second bursts at 7.5, 15, 22.5, 30, 37.5, 45, 52.5 and 00 seconds. These can vary from single 7.5 burst to a transmission lasting anything up to 15 minutes, the 'Fading' element can occur at any 7.5 second point with the signal varying from a high to a low or going off air only to return without warning.

(It is interesting to note that transmissions always follow precise 'clock-time' e.g. any given 7.5 segment is always correctly positioned within the clock minute).

The multi channel signal operates at 500 HZ, 1100 HZ, 1400 HZ, 2 kHz, 2.6 kHz & 3.4 kHz. And active frequencies are has follows: Note the signal is wide and can vary by +/- 3kHz.

3191	4023	5090	6505	7387	9125	10142	13431
3217	4062	5110	6796	7500	9138	10480	
3382	4457	5195	6825	7658	9225	11100	
	4478	5313	6848	7813	9245	11517	
	4496	5328	6878	7997			
	4563	5400					
	4845	5468					
		5788					

Over the years a few cracks have emerged and one transmitter site has been identified in the U.K. "RAF" Mildenhall, Suffolk, a USAF HF station which is one home known to house these transmissions. Mildenhall is the home of the 488. Intel. Sq. (RC-135) USAFE - United States Airforce Europe.

It is almost certainly the case that only one organisation uses this unusual mode of communication and we would be very interested to hear from any readers who may be able to answer any of the following questions. What is the mode? Where are they all located, what is all that traffic about and what is their purpose? For all the wonders of modern science these signals seem to have evaded the clutches of demodulation! All comments welcome.

Someone reading this knows exactly what the mode used is and the locations from where this peculiar signal is transmitted. Perhaps they would like to share that knowledge.

However faders continue to be as active as ever. On December 28th a new frequency was found active at 11.00 on 20850, this is the highest I have ever heard this signal, as you may be aware quite a large number of 'Fader' frequencies were previously registered for use by the "Inform & Gangbuster" US Networks, however 20850 is not one of these.

The previous highest known frequency was 13431, this would suggest that others between 14 and 19 MHz are also waiting to be discovered. If anyone is in any doubt as to how active the are then all the following were logged in January this year as active.

3215, 4477, 4496, 4560, 5146 (new), 5092, 5311, 5328, 5787, 6824, 6875, 7658, 9244, 10139, 10478, 11100, 11515, 13431, 20850 (new). 5146 was previously an "Inform Net" and is now used by Faders. It is very disappointing that so little as been learned about this 'mode', despite its widespread use in Europe. Many other frequencies are also known. Full list available on request.

FSK BURSTS

Previously discussed in Issue 2, this particular station operates on 5435 kHz (approx) and can be heard along with E10's transmission.

The station follows the clock minute sending 8 x 7.5 bursts across a wide frequency range.

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

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 7.5second 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.

LINK 11

Still lots of active frequencies, recent monitored include; 4020, 5071, 5385, 5417, 5726, 6706, 6985, 8028, 8305, 9280. 9280 collides badly with WYFR in Chinese (?) at 15.00 not a good choice. Do Link-11 transmitters not operate above 10 MHz ?

PIP (S30)

Still going strong on 3757kHz, CW

RAPID PIP

This was heard on a number of occasions last year [December 2000 7812//4457kHz evenings] and has returned for 2001. The signal consists of a Rapid Pip about 3 per second, transmissions are usually found on two frequencies and can run for up to one hour, leaving the air without warning or indeed any message. Only on one occasion have I heard anything intelligent, when the 'Pip' stopped about 20 seconds of random letter were sent, followed by more 'Pips'.

Previous pairs noted have included ; 8093//6844, 8093//5446, 8093//3767, 6821//4816, 5739//5225, 7572//???? On December 28th the signal was noted on 5812//4457 for over 45 minutes with no message sent and on January 15th 2001 it was noted on 3935 under Radio Laser Hot Hits, unusually at 19.30 it moved to 3838, no parallel was found for either of these frequencies. It is probable that the signal is some form of status indicator, however I am puzzled as to how the recipient is supposed to find it ? Comments welcome.

SLOT-MACHINE (XSL)
This station has now been received by ENIGMA 2000 member C who reported, 'On Sat 06/01 at 1844Z I heard the Slot Machine on 8588 & 8703.5 + 6417 & 6445 (1st time on this pair) using a narrow filter on the later two. A good signal on 8M freqs but only fair in the 6M freqs, due to co-channel interference. Nothing on 4292 - Teletype QRM only.' [Thanks C].

Note the use of decimals in some of the frequencies where the slot machine has been heard. Decimal frequencies, such as this, are common in the maritime service. Given the US allocation being 'special and data transmissions systems' in allocated frequencies where this is heard does suggest a modified mode, as yet not commonly used.

Further observations will be made to receive this oddity and ENIGMA 2000 would like to hear from anyone, Stateside or Europe, willing/able to make observations, or offer constructive thought on this interesting unknown. TS, USA reported an observation of XSL on 6445kHz 0807Z 13/02 USB.
Note the use of decimals in some of the frequencies where the slot machine has been heard. Decimal frequencies, such as this, are common in the maritime service. Given the US allocation being 'special and data transmissions systems' in allocated frequencies where this is heard does suggest a modified mode, as yet not commonly used.
The classification of XSL, for the slot machine, has been added to the Control List.

Other observations of this station [By JM in US]:
6417.0kHz 1530Z 16/01
8588.0kHz 1530Z 16/01
8703.5kHz 1530Z 16/01

E2k were contacted by Eddy of Australia who sent a .wav of the signal that he heard:

8588//8703.5 0902Z 06/02 [Transmission started at 0900Z]

Further observations will be made to receive this oddity and ENIGMA 2000 would like to hear from anyone, Europe/ Aus or NZ / Stateside etc, willing/able to make observations, or offer constructive thought on this interesting unknown.

SQUEAKY WHEEL
Last reported on 3815kHz 2218Z 02/12 and now heard on same freq 2243Z 11/12 es 0014Z 21/01 es 2305Z 31/01
MP3 file available on Ary's N&O site.

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

WHALES (XM Backwards Music Station)

For Europe try these historical frequencies: 5094, 6422, 6695, 8460, 10225 and 10513kHz. For the US: 4155, 5399, 6817, 9285, 10225 and 11209kHz
Eddy of Australia also reported XM as well and kindly sent a .wav:

13368kHz 1357Z 02/02 [USB used]

WORKSHOP (XW)
This peculiar station was last heard on 11/11/00 at 1744Z on 5430kHz. At S7 in South London.
The transmission lasted for around 20 mins. Not heard since.
A previous frequency for this station was 4330kHz

ZEBEDEE
This station has finally been heard again.
3070kHz 1803Z 01/02/01 LSB

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/brogers/page2.html

Thanks to C for his most valid input and to K, R , Eddy of Australia, JM&TS of US and all other monitors who supplied details of their observations.

Now an excellent informative article:

NOTES ON JAMMING

E03 LINCOLNSHIRE POACHER Jamming of Lincolnshire Poacher transmissions appears to have ended around July of 2000 and at present no jamming is taking place. The end of jamming seems to have coincided with an improvement in diplomatic relations between Britain and Iran.

LP as doggedly continued against a barrage of jamming since at least the late 1980s. The only sign that things were getting too much was when the 10.00 and 11.00 UTC transmissions were dropped.

The pattern of jamming used to be operational between 10.00 and 14.45 UTC with a break until around 18.00 or 19.00 UTC, then resuming until 22.45 UTC, the reason for this break was probably due to the more pressing need of Iran to block incoming clandestine stations. Clearly it is a priority of those in power to stop the general populous hearing distasteful remarks about the regime, particularly so over that of some incomprehensible numbers and a rather quaint folk tune!

During the daytime all 3 frequencies were blocked, but often only two of the three frequencies would be jammed in the early evening and even then sometimes the wrong frequencies at that, this inconsistency was probably due to a lack of available jammers. It should of course be remembered that jamming can be switched on and off at the will of those in control. LP's complex sliding schedule is however very useful in ensuring that the message would get through.

E03a CHERRY RIPE Although I have never noted jamming of Cherry Ripe some interesting points can be noted about how it operates, when it first started it followed the E03 format of operating on 3 frequencies and sending the call for 10 minutes. It is possible that the operators did anticipate jamming, perhaps from China or North Korea. Clearly relived that this did not materialise the station later dropped one frequency and reduced the call time to 7 minutes. On the subject of jamming from China they claim they do not block incoming foreign broadcasts (not), that hideous noise you hear mixed with radio Free Asia is usually a China Radio broadcast on the same frequency. This China does not class as jamming - it just happens to be there by chance (!) and allows them to claim they do not jam.

E05 COUNTING STATIONS During the late 1980s until the mid 1990s some E05 Counting Station transmissions were jammed, although I cannot confirm the source it was widely believed to be Iran or Iraq. The jamming was less blanketed than that used against E03, possibly monitors within the country involved would inform the jamming station of a transmission, and if facilities were available jamming would commence. These monitors also had to locate the second frequency, which they usually managed to do within the 10 minute preamble. They also used the method of switching off the jammer periodically to check if the station was still present and then resume jamming. The jammers never quite got to grips with the mysterious call '383' - this was unique in English language Counting Stations, (V05 had '545'), in that it sent a normal call 1234567890 - 383 etc, for the usual 10 minutes, no tones were sent and no message ever followed - it just ended. Jammers however continued to jam it until they realised it had gone! No jamming was ever noted of German or Spanish language Counting stations.

The jammers also turned their attentions to the 4F control transmissions, these always commenced on the h+30 and usually sent a small number of 4F groups repeated on a loop for 10 minutes. I certainly remember the 17.30 UTC transmissions been jammed.

OTHERS In my years of monitoring (since 1975) I have not noted other jamming against Number Stations, it is surprising the E10 stations have not attracted such attention, Israel as operated their network for many years. Both North and South Korea have jammed each others number transmissions, but, I can only assume that it was a 'gentleman's agreement' certainly between Western Europe, Eastern Europe and the Soviet Union not to deliberately interfere with each others intelligence transmissions.

ENIGMA 2000 ARTICLE

This month's article takes the form of an easily constructed antenna, which gives good results beyond the design frequency. Three members have successfully made the loop. They were asked to follow the article and drawing and successfully finished the construction with no bits left over.
The diagram is contained in 'issue3.jpg' and contains a comparison graph.

[On the graph the x-axis is frequency, whilst the y-axis is signal strength, shown simply on a 1 to 10 scale].

ENIGMA 2000 'COVERT' LOOP ANTENNA

Design Notes

The idea for this antenna was prompted by the need for an easily erected antenna that would give reasonable results without being obtrusive and be useable in areas where it is not possible to mount a full length antenna.

The resultant antenna can be mounted on a suitable window, or, like the prototype, on the back of a door allowing movement of the antenna for the best signal.

The design frequency of 4.2 to 18 MHz is easily obtained in two ranges, 4.2 to 6.25 MHz [with an additional 220pF capacitor switched across the variable capacitor] and 6.0 to 18 MHz.

The 470nF capacitor in the smaller coupling loop removes the possibility of placing a physical short across the antenna input of the receiver to which it is connected. Receivers, such as the Yupiteru MVT-7100 do not react well to such a short and cease to give a satisfactory performance after such treatment.

There will be some variation in the coverage of individual loops due to component tolerances.

The prototype loop values were calculated against a standard capacitor at frequencies generated by a gate-dip oscillator and measured by a calibrated Marconi 2431A Frequency Meter. The standard capacitor value being checked by a calibrated AVO B183 LCR meter.
The loop value was calculated, finally, as 2.69uH, allowing easy calculation of the working frequencies should other variable capacitors, other than that recommended, be used.

In practice it was found that the actual upper and lower working frequencies of each range were in slight variation to those calculated.

Components

1pc	Ribbon Cable	2Metres long
1	220pF capacitor	poly or ceramic

1 470nF capacitor poly or mica

1 Dual gang Variable Capacitor 141.6/59.2pF, Maplin FT78K or similar.

3 2.5M screws to fit FT78K if mounted [must be cut to size].

1 Knob to fit above

1 Switch, small, Maplin FF77J or equivalent.

1pc Blu-tack

1 Plastic Box, [Maplin KC91Y suitable] to mount variable capacitor and switch and a 4 way connector for loop connection, should 'professional' look be desired.

Construction
First consult the line drawings. [Issue3.jpg].

Take a 2metre length of ribbon cable and remove all but four conductors. This length is folded in half producing a 1metre length, the apex is point 'X'.

Using Blu-tack fasten the 1metre length to a flat surface. From the apex, 'X', measure down 540mm.
Lift a single conductor, at point 'X', and pull down the previously measured 540mm. At this point cut away the unwanted 540mm length, leaving 460mm on either limb of the length.

From the newly cut ends strip each side back a further 230mm. Clean sufficient sheath away from each end to permit soldering to the 470nF capacitor. [That is point 'A'].

The conductor next to the 230mm sq coupling loop will form the main loop, which will be terminated to the variable capacitor.

The variable capacitor has two gangs, each with a tag and the central common tag. Join the two gangs together by soldering a short length of wire between the two relevant tags.
In addition, a 220pF capacitor is soldered between one of the gang tags and the central common tag, via a switch. It is this switch that will permit the changing of frequency range.

Carefully strip back sufficient sheath from the free ends of the main loop and solder one side to the gang connection tag, the other to the central common tag. That makes point 'C'.

Two conductors remain unused and will form a connection to the wireless. Strip the two conductors from one side of the main loop, ensuring that the two conductors remain together, to the other leaving 1900mm free as a lead out. From the remaining 100mm attached, pull back 30mm and strip enough sheath back to permit connection to the ends of the coupling loop. [Point 'E'].
A plug suitable for connection to the radio intended for use can be fitted to the free end of the 1900mm cable from the coupling loop.

The antenna is now ready to be mounted, a vertical length of 870mm and maximum width of 340mm is required, the prototype being mounted on a wooden door, although a suitably sized window would suffice. Remember to avoid large areas of metal.

First fasten the apex, point 'X' of the large loop and then point 'C' [Blu-tack already in place on the back of the variable capacitor] 870mm lower than point 'X'.

Measure up 240mm up from point 'C' and fasten the 470nF capacitor, connected to the inner coupling loop, by the same means. That is point 'A'.

Take hold of the two points 'B' and 'D' and pull them horizontally apart, approx. 340mm, and fix with Blu-tack, completing the mounting.

Obviously a small plastic box can be used to mount the range switch and variable capacitor in if a more professional approach is required. Small suction cups could be used to support the box and loop if mounted on a glass surface.

Use

Assuming that construction is correct the receiver is set to a frequency where a reasonable signal is known to exist [BC stations are good for this]. Setting the antenna to the correct frequency range upon the slow rotation of the variable capacitor an increase in signal strength will be apparent as the loop reaches resonance for that frequency.

Performance

The prototype loop was used in conjunction with a Yupiteru MVT-7100 receiver and compared with the existing 6M long wire [unmatched] fed into a Yaesu FRG-100.
Comparison curves were produced and given the small size of the loop antenna it can be seen that the performance is only 3 ‘S’ points down [at LF] from that produced by the long wire antenna, whilst at mid-range to HF the difference varies between 1 or 2 ‘S’ points.
The FRG-100 ‘S’ meter and MVT-7100 bargraph were in no way calibrated for measurement purposes, the signal sources being derived from actual steady transmissions detected using the FRG-100.
Apart from transmissions used for comparison purposes, it was discovered on subsequent signals detected by the FRG-100, where signal strength was low, the bargraph on the MVT-7100 did not indicate any signal strength. However the resultant audio remained intelligible.

ENIGMA 2000 would be pleased to receive comments on the design and performance of this short project, written with the needs of those who cannot erect an ‘obvious’ antenna in mind.

BOOK REVIEW

BETWEEN SILK AND CYANIDE
THE CODING BATTLES OF WORLD WAR TWO
BY LEO MARKS
Harper Collins, £19.99, ISBN 0 00 255944 7

"Set Europe Ablaze" urged Winston Churchill in mobilising the Special Operations Executive in 1940 to wage war against the Nazis. But lighting fires behind enemy lines was easier said than done. The enemy all too often seemed closer to home. Baker Street, SOE headquarters, fought bitter Whitehall wars to get even the basic tools for the job.

Yet the real face of the battle was waged by agents in the field; who faced betrayal, capture, torture and death. Their lifeline was the radio link with London. If it snapped or fell into enemy hands, disaster could follow. Codes and ciphers were the bodyguards of radio and agent: their story lies at the very heart of the SOE.

The merit of Leo Mark's highly readable book is to link the business of codes and ciphers to the fates of individual agents and operations, and thus transform his tale into a human drama. Recruited as a precocious 22-year-old cryptographer by Baker Street, this irritant to hierarchy enjoyed post-war success as a playwright and screenwriter. Words are in his blood - his father founded the now legendary rare bookshop at 84 Charing Cross Road - and he knows how to get the reader to turn the page.
Ironically, his real achievement in SOE was to stop the very thing for which he is mainly remembered - the poem codes that agents took into the field, especially the one he composed for Violette Szabo, who was later executed at Ravensbruck. Prefacing the book, it opens with the poignant lines: "The Life that I have/Is all that I have/And the life that I have/Is yours." Marks, who inherited the system, decided that such codes could easily be broken and become death-traps, not lifelines. His struggle to replace them with codes printed on silk that could

be destroyed after use raised Baker Street eyebrows. What difference, asked his sceptical superiors, would it make to the agents? "It's between silk and cyanide," he replied, and got his way.

One tragedy dominates his account, the infamous Englandspiel in which the Germans used the codes of captured Dutch agents to lure over 50 to their death. Often afraid and on the run, agents made encoding errors known as "indecipherable's". Alerted by their absence in messages from Holland, Marks became suspicious. His frustrating campaign to convince his superiors that the entire Dutch network had been infiltrated by the enemy provides a suspenseful story of credulity and incredulity, hope and despair, intrigue and counter-intrigue.

It presents of course, a Marks-eye view. Even if evidence from the codes was clear, a fact obvious with hindsight, his superiors fought on other fronts, too. Painfully aware that admitting error could hand their rivals a fatal political weapon in Whitehall wars, they battled disbelief, and when all was finally revealed, were only saved by Churchill's faith in their work. Such was the damage wreaked by fear and loathing in London. The radio link was not always the lifeline it seemed. For secret agents, home can be as deadly as some foreign field.
REVIEWED BY DAVID STAFFORD.

NEWS ITEMS

Estonia expels two Russian Diplomats.

Estonia strengthened its apparent pro Western leanings by expelling two Russian Diplomats for spying.
The former Soviet republic provoked Russia to order two Estonian Diplomats out of Moscow within 48 hours of the order being given.
Estonia is a good candidate to join the EU and has made strong moves towards the next round of NATO enlargement. This ‘Cold War’ style spying row is further fuelled by Estonia’s provision of a listening post for MI6 and the CIA.
It is reported that Latvia and Lithuania provide similar facilities.

GCHQ web challenge cracked in a week

A deliberately difficult teaser placed on the GCHQ web site was cracked by enthusiasts in just over a week.
The previous challenge took only 48 hours and consisted of clues hidden in the structure of a page or hidden by text needing only a click of a mouse button to reveal them.
This latest challenge involved binary coded letters and the burying of clues in colours used in the pages.
GCHQ hope that some of the successful enthusiasts will apply for a job.
[See ‘Relevant Web Sites].

Tracking phone users.

New technology and legal reforms (RIP Act) now allow Police and security services the freedom to spy on Britain’s population more effectively.
Mobile phone manufacturers have been told that they must include a microchip with their product that will allow satellites to locate the user to an accuracy of five metres. The original proposal for this was for the location to be sent when the 999 facility is used but an electronic surveillance expert stated the RIP Act allowed GCHQ to intercept domestic telephone traffic. Although disputed by the Home Office who said that GCHQ only intercept external calls there are similar proposals in America.
The chip is produced in Dublin by Parthus Technologies. The chip takes information from a satellite and sends it to terrestrial base stations resulting in the callers location being transmitted every time the Emergency services are called.

All British Subscribers under threat of 'carte blanche' spying by the State.

A document that has been made available to a British Sunday Newspaper and entitled 'NCIS Submission on Communications Data Retention Law' has sparked fears that secret moves, costing millions of pounds will affect the privacy of every member of the population of Britain. The document, dated 21st August 2000, was written by Roger Gaspar,, the deputy director general of NCIS.
The document which has been reported as being 'Restricted' states that new laws are needed to allow the

intelligence services, Customs and Excise and the Police access to telephone and computer records of every member of the public.
Politicians and campaigners see this move as 'Big Brother' powers and an attack on an individual's right to privacy.
It is envisaged that every telephone call, e-mail, fax, websites and pages looked at, by the subscriber, would be recorded and stored in a 'data-warehouse' for seven years.
The cost of setting up such a system would cost an estimated £3Million and a further £9Million to run, the data bank being compared to the national DNA database.
Obvious uses of such a monitoring system would be to tackle terrorism, paedophilia and drug trafficking as well as other organised crime.

Dame Stella Rimmington's Memoirs leaked but later approved for print..

Following the expose from 'The Sun' newspaper that received a leaked copy of the former head of MI5's manuscript a spelling error will help check the authenticity of the document.
Dame Stella's book 'A Life of Surprises' had a small part of the opening page printed in the newspaper.
The document handed to the Cabinet Offices, by 'The Sun' is being checked against a copy that Dame Stella had offered for vetting.
Officials checking the document expect that the two would match. A small mistake in the spelling of Forword, mis-spelled as Foreword is the indicator here.
It is not known where the manuscript had come from but suggestions, later discounted, have been made citing MI6 as the source.
A Home Office official praised the voluntary return of the document by 'The Sun'.
The go-ahead was later given for the manuscript to be published despite the thoughts of senior security and intelligence officers. The Ministry of Defence, which has mounted failed proceedings against others to try to stop the publication of memoirs of SAS soldiers and the like, fiercely opposed this decision.

Romanian ex head of Secret Police Charged.

During the communist era of Romania the editor of Radio Free Europe was murdered, in the Eighties.
The ex-head of the Securitate, Nicolae Plesita has been charged with this murder.
It is alleged that the contract against the editor was executed by "Carlos the Jackal", Ilich Ramirez Sanchez.

Credit for breaking Japanese Naval code challenged.

JN25, the Japanese naval code has long been claimed to have been broken by the Americans. Unfortunately this story has as much credence as the film U571which showed the USN retrieving an Enigma machine from a damaged German Submarine, when in reality the act was one carried out by the Royal Navy.
A new book. 'The Emperor's Codes' by Michael Smith uses recently released documents to prove the Americans' claim to the decoding to be otherwise.
Bletchley Park, known for the breaking of the Enigma Codes and the design and use of the world's first electronic computer, was not the only cryptographic success of the British.
A Royal Australian Navy officer, Eric Nave, teamed up with a British cryptographer, John Tiltman to actively attack and penetrate the Japanese codes.
The task was an incredible one due to the complicated Japanese alphabet and the necessity of different morse characters from those used internationally. The code was broken in 1939, long before American forces were engaged by the Japanese.
This is not the first book to claim this fact. A book written by James Rusbridger and Eric Nave 'Betrayal at Pearl Harbor' adequately relates the story leaving the reader in no doubt who actually cracked what.

Naval Spy apprehended in Japan.

A senior Japanese naval officer, Lieutenant-Commander Shigehiro Hagisaki, 38, of the Maritime Self-Defense Force, was arrested and subsequently charged for passing classified information to a Russian Diplomat. Later the accused pleaded guilty to the passing of secrets.
Hagisaki, who has a posting to a Defence Research Institute, was arrested after enjoying a meal, in a Tokyo restaurant, with a Russian embassy official. A subsequent search of Hagisaki's home revealed a pile of sensitive military documents of which a percentage concerned US Far East operations.
The Russian official was Captain Viktor Bogatenkov, 44, a military attache and member of a Russian Intelligence organisation. As the arrest was made Captain Bogatenkov claimed diplomatic immunity and refused

a request to go to the local Police Station for questioning. Bogatenkov left Tokyo by plane from Narita airport the next day after the Russian Embassy forbade questions being put to him.
Japanese officials have claimed that this matter, Japan's largest spy scandal in 20 years, would not threaten Russian-Japanese relations although Japan stated that a planned exchange of Military Delegations with the Russians would not now go ahead. Those guilty of leaking secrets face 1 year in gaol or fines up to £450. With the US, France, Russia and China having a maximum penalty of death for those who spy Japan's Defense Agency is asking for harsher penalties to be introduced.

US drops charges against 'Chinese' spy.

The US government has dropped charges against Wen Ho Lee the scientist it arrested, detained and charged with spying. The original 58 charges would have been sufficient to send sixty year old Dr Lee to gaol for the rest of his life. A plea bargain, struck with the prosecution, means that the 58 charges have been dropped in favour of a single charge of Improperly downloading classified material.
Dr Lee who apparently destroyed 806 Mbytes of information was officially freed in September 2000 receiving an apology from District James Parker for "the unfair manner in which you were held in custody."
Judge Parker went on to say that, "the authorities has embarrassed an entire nation" with the case of Dr Lee.
Although freed Lee was found guilty of the offence specified in the plea bargain and sentenced to serve the time that he had been remanded.

Attempt to kill President Putin Foiled.

During a summit of former Soviet Republics attended by nine leaders Vladimir Putin was targetted for an attack against his life. It is thought that four persons from Chechnya and several others of Middle Eastern origins, now detained, were responsible for the attack.
Leonid Derkach, chief of the Ukranian Security Services said that several foreign secret services had information concerning the threat to Putin. The FSB confirmed that they had worked with their Ukranian colleagues to thwart the attempt but refused to make any further comment.

French Hacker in Court revealed secrets available in books.

Vincent Plousey, aged 28, who uses the nom de plume Larsen, served two months in gaol recently for disclosing national defence secrets.
In March 1998 Plousey published a list of Radio Frequencies used by the French Strategic Oceanic Force, Land Forces and the national police and Gendarmerie on his e-mail magazine.
Plousey was placed under covert surveillance, electronic interception of his personal communications was carried out and he was under covert physical observation at all times during the investigation. At the conclusion of the investigation, taking 7 months, Plousey was arrested by armed agents of the DST (Direction de la Surveillance du Territiore – French Internal Security Service) in April.
Placed in detention Plousey was treated as a sensitive prisoner.
In court Plousey disclosed that the frequencies he had published in his email magazine were in fact freely available world wide in publications such as the American Monitoring Times and the German Klingenfuss Utility Frequency publication.
Should this defence fail under the new French penal code Plousey could well serve a gaol sentence of five years with a maximum fine of FF500,000.
Plousey's lawyer, Jean-Pierre Millet, himself a specialist of Civil Liberties on the Net says that there is a failing of some state agencies in protecting so-called secret data and the free circulation of data that may be classified in one state, but declassified in another.
Plousey states that the frequencies that he disclosed had never been used other than for testing and that he did what he did for fun and out of curiosity. He also feels that the threatened punishment is too strong.

Stasi files expose British Mole

Hidden in 120 miles of old Stasi files was a document that indicated a British mole within the establishment of the Royal Institute.

The mole, codenamed 'Eckart' is believed to have provided the Stasi with details of briefings on intelligence matters on Chatham house [the think-tank], Nato, the Royal Navy and other such matters.

Admiral Sir James Eberle, director of the think-tank 1983 – 1990 and one of the most decorated living seamen has denied that he was the mole. Suspicion on him may well be fired by the knowledge that in the days of the Cold War Sir James had contact with a number of East German diplomats.
The discovery was made after the decoding of Stasi indexes relating to the Cold War files in Berlin. Although most files were destroyed as the Berlin wall was breached the index and listings of titles of reports submitted by British moles were left intact. The information gleaned from the index showed that Eckart gave the Stasi a report, "Chatham House on armaments industry" and another file, "On a Chatham House Study", on 15th October 1981.. His handler was given another report titled : "On the evaluation of the international position of Chatham House" on 27th November 1981. Other reports entitled "Planned Manoeuvres of the British Navy" and "On Burden Sharing in Nato – Problems" illustrate the catholic range of reports passed by 'Eckart'.
MI5 are apparently investigating this and other disclosures of British moles from the former Stasi files.

Thanks to all those who sent in reports including C, J and P.

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

RELEVANT WEB SITES

Thanks to Mike of Germany for his input of this splendid site, which is well worth a visit:
http://www.geocities.com/Area51/Station/3136

http://www.officialsecretsact.org

http:// www.shipping.detr.gov.uk

http://www.msnbc.com/news/502361.asp?cp1=1

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

http://www.cl.cam.ac.uk/~mgk25/gchq-challenge.html

http://dspace.dial.pipex.com/brogers/page2.html

REQUESTS.

Thanks to all those who have responded to the requests below:

Does anyone remember the unfortunate death of British technicians working in the Middle East [possibly Turkey?] on a radio-monitoring project? Enquirer believes they worked for HM Govt, time: around 1972? Believed killed by local dissidents. All info gratefully received.

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
M52. After not being heard for 2 years, was on Monday 12 February at 2102 on 5922, sending 30 I I 512495 512495 512495 +

M83 has been logged on 2309

M1B Has come up with a record GC of 99 groups
New frequency for Monday 2110 5063

M14. Several have been heard recently, 6 February 1900 on 5460 ID 212, 125 group message. 12 February 0630 on 4014 ID 139 Null. 0800 on 7790 ID 388 Null.

There seems to be either M14 or M24 on each morning at 0800 on between 7400 and 8200. Logs being received from the USA.

We have received information that the Clandestine Radio Watch reports that the Worker Communist Party of Iraq has resumed transmissions on 9450kHz [E25 use] from 02/02 from an undisclosed transmitter location. A one hour programme will be broadcast between 1500Z to 1600Z by Radio Bopeshawa in Arabic on Mon, Wed, Fri, with a Kurdish tx on Thursdays.

We thank the anon contributor for this most important posting:

"As of this morning, Saturday Feb 17, 2001, HAARP began doing testing with greatly increased FULL power. The transmitter can now be heard all day long on 3.39 MHz."

Msg for 'D' Tnx yr last JIR & allied info. Pse continue to supply.

CONTRIBUTION DEADLINES FOR 2001 ARE AS FOLLOWS:

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'.
ENIGMA 2000 CAN BE PAGED VIA: 076 2 627 6417