ENIGMA 2000 NEWSLETTER

http://www.enigma2000.org

A Walk in London

Left: The sign on Marconi House detailing 2LO transmission [BBC London] © *Male Anon*
Right: Barracks on Kensington Gore [Note Antennas] © *Manchester Ringway*

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http://www.enigma2000.org

<u>REMINDER:</u> IN KEEPING WITH OUR ANNOUNCEMENT IN OUR RECENT NEWSLETTERS ENIGMA2000 WILL NOT DISCUSS THE RUSSIAN/UKRAINE or ISRAEL/GAZA MATTERS BEYOND TECHNICAL MATTERS

WE WILL NOT BE ANSWERING E MAILS SENT FROM THE PARTICIPATING COUNTRIES CONCERNING OUR SUBJECT MATTER

Editorial

A quick thank you to Barry who kindly reminded E2k our QR Code was out of date. Now sorted!

A V13 update from Ary, who writes:

I am working with a couple Chinese speaking dxers who closely follow V13. The station's message formats have changed a while back and these are still in use. We therefor propose to add two suffixes:

V13 (regular classification) : Standard format. AM/USB hybrid, introductory phrase spoken twice, three messages addressed to three different units, group counts between 30 and 35.
V13a: AM mode, introductory phrase spoken only once, analog voice synthesizer, 5-7 messages addressed to 5, 6, or 7 units with group counts between 20 and 39.
V13b: AM/USB hybrid, introductory phrase spoken twice, 4 messages to 4 units, longer group counts between 50 and 69 in each message.

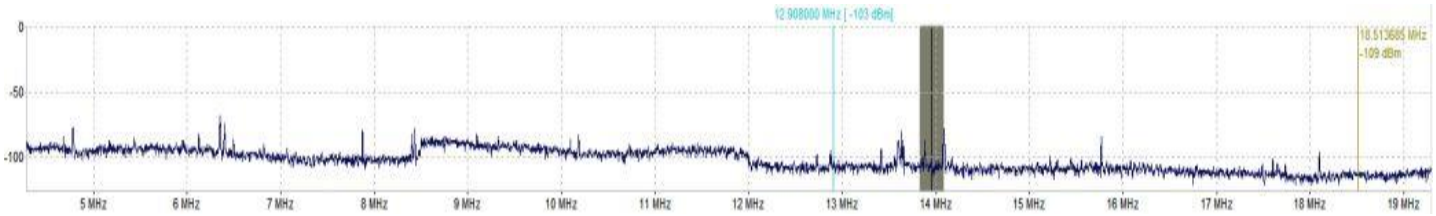
Please update your Active Stations List.

A hearty thanks to Ary and the two Chinese DX ers.

Short wave propagation over the last few months has been somewhat variable with wide variations in signal strengths noted especially with some of those E11 schedules using the higher frequencies. Much comment on the local TV news in the first half of October about the appearance of the Northern Lights - Aurora Borealis - being seen further south than is usual due to the Sun's activity, which has happened several times this year. I noticed that on the 7th at around 2130 UTC the Shannon VOLMET station on 5505 had the distinct rapid flutter effect which suggested auroral activity.

HM01 Mixed Mode from Cuba on 13435 kHz:- Nothing heard! This station which was heard with strong signals on the majority of days throughout a large part of the summer months, i.e. late May, June, July and a large part of August, starting some time after 0655 UTC, was last heard on 22-August and despite monitoring the frequency from around 0650 UTC for at least half an hour on most days since then - nothing has been heard. Strange that it should vanish so abruptly but there has been coverage in the media in recent weeks about a problems with the electricity supply in Cuba with widespread and long lasting power cuts so perhaps the absence of HM01 is connected in some way with this.

My own monitoring started on 02/09 with XPA2 p Mon/Wed. Apart from the threat of lightning [*gets pretty lively up here in one of the hightest points in London – QTH 73.8M ASL*] there's always a radio noisy background. I was expecting the usual weak signals seen over the last months but reading the solar indices indicated better behaviour on the lower HF bands. Usually a poor performance expected on 20M and below; not so today with good performance indicated, and seen from 10MHz onwards:



0800z 02/09

As the summer carried on conditions became variable as we have seen; as we move into Autumn [Fall to those over in the US] the weather became worse but the condition a little better. In one of the highest points of London we've been blighted with lightning as well as threats of lightning meaning some stations were not monitored.

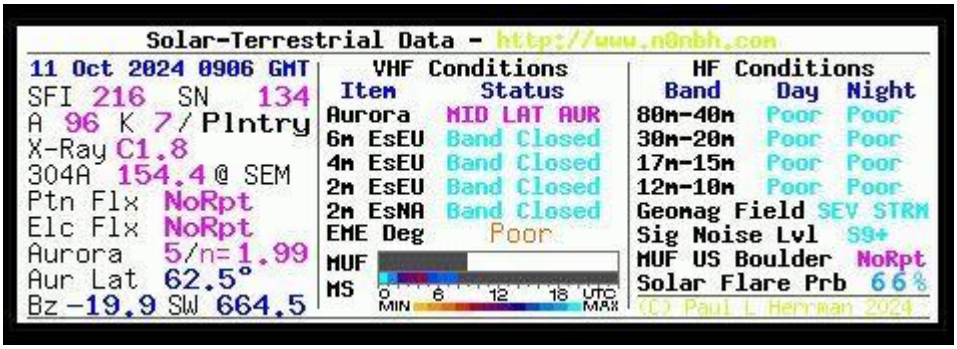
Along with these conditions where a lot of NRH or unworkables, Hans-Friedrich reminded us of apparent lost schedules:

Missing skeds [Absent for 3 month, via H-FD]

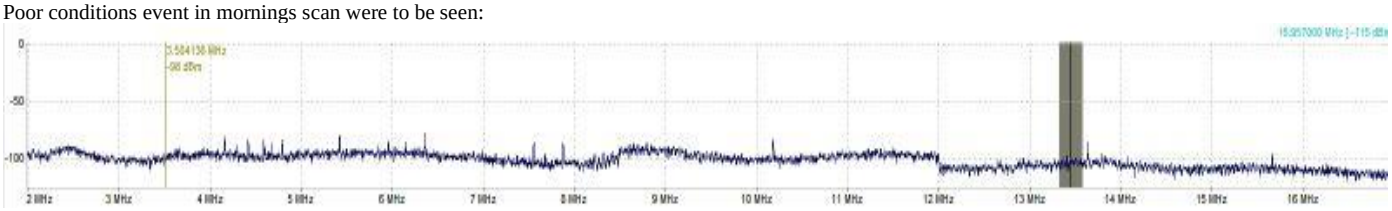
M12 Mon/Thu 1600z
missing in July 16284/14984/14384 kHz 293
missing in August 16251/14951/14451 kHz 294
missing in September 19546/18446/13346 kHz 543

XPA2 Fri/Sun 0800z
missing in July 13391/13891/14891 kHz
missing in August 13962 14862 15962 kHz
missing in September 14374 14974 16274 kHz

The solar data as seen a few days before the 11thOctober gave an insight into the approach od something special and I had predicted what might occur on the night of 11th during breakfast



Poor conditions event in mornings scan were to be seen:



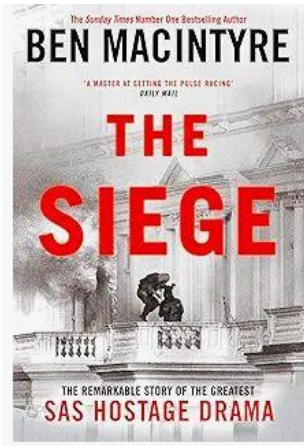
0917z 11/10

In the evening I poked my head out of our back door and saw first knockings of the aurora towards the general west.
Going to our top floor we looked out to be rewarded with this:

Looking appx 41° and not at all bad considering the light pollution seen in the London skyline.
Better was to come from my daughter from Meldreth, a village outside Royston, Cambs:

Not aware of any doctoring, but one image seen on social media from across the lake at Crystal Palace park was showing an almost fluorescent green curtain and that is not what anyone else reported.

Book Review



The Siege, Ben Macintyre

Strange to think this happened 34 years ago; like many of my age I can bore you to death telling you what I was doing as this lot unfolded.

Ben Macintyre, it seems from the book, can do it better and in a more exciting way. I have a copy courtesy of Waterstones [Bluewater] and although I have yet to read it I was taken with the few snatches I read prior to buying.

Before I bought it our NI member sent me the BBC link: https://www.bbc.co.uk/sounds/brand/m0022z2y

If you listen you'll agree its sounds very good.

Recommended? Certainly!

This will be the last newsletter of 2024; the list owner and moderators particularly wish all those who have contributed throughout 2024, our members, those of N&O and Priyom and all other readers Compliments of the Season.

Happy Christmas

Before Newsround we take great pleasure including this article on the Polish Number Station perspectives:

NUMBERS STATIONS FROM THE POLISH ARCHIVES by TOMASZ CHOPIN

An interesting article appeared in 2007 in the technical journal Cryptolog/a concerningnumbers stations written by an academic here in Poland named Jan Bury. lt explored ciphersand the interception of American and West German agent communications by Polish statesecurity (UB/SB) here in Poland during the Cold War.

The basis of the article was a declassified Top Secret Polish counter-intelligence report from April 1975 covering ciphers and one way radio links used by the CIA/BND in its operations against us during the 1960 -70s.

This paper from our Institute of National Remembrance (which holds the State Security archive) provides a unique insight into the world of the numbers stations. I provide some parts of it which are of interest to ENIGMA 2000 and a few thoughts of my own.

The existence of the Iron Curtain and great state surveillance ensured that the recruitment and running of human intelligence sources in Soviet occupied Europe was extremely difficult.
One way radio links were thought by intelligence agencies as being anonymous and secure with no personal contact. Even in the socialist east the presence of a commercial radio receiver with the SW band would not create suspicion. The receipt of numbers stations would be very hard to detect unless an individual was under tight surveillance or monitors were close to the equipment. Further, only limited training was required in radio communications and decoding messages.
The previously Top Secret report from our state security services notes that from 1960-75 twelve foreign agents were detected in Poland who were using radio to receive instructions.
Four of them worked for the US and eight for West German intelligence. The BND sent messages to Poland via a transmitter in Frankfurt from February 1959 and this station covered the whole of Europe. Polish security estimated that 200 agents received data from this station. The first agent to receive a message was Erwin Kuhnert who was recruited by the BND in August 1959 and arrested in November 1960. The other seven German agents were all collaborating with Polish State Security either after being detected or having been sent to be recruited by the BND and then being used by us as secret collaborators playing the counter-intelligence games.

In the 1950s there were many cases of resistance organisations being penetrated and used by the authorities in Poland and other Warsaw Treaty states.

Kuhnert had the callsign 840 and used an Accord radio receiver with a cipher key based on the words DEIN STAR. He was found to have 35 cipher pads with 170 groups on each page.
The controlled agents used Sanyo and Braun receivers with messages being sent to them on three days each week. Their cipher groups were on a narrow paper roll and they had the callsigns 062, 228, 287, 474, 626, 841 which did occasionally change.

The BND had another radio transmitter in Munich and one controlled agent maintained communications with this site having previously being controlled from Frankfurt. This person
used the DEIN STAR key and had cipher pads for one year. The Munich station was said to be constantly on the air and had global coverage for 220 agents (is this figure accurate if the callsigns were sometimes changing?) BND cipher pads and instructions were on long thin,narrow strips of paper known as "bug rolls" with messages being broken out in German as the agents in Poland had a good command of our neighbours language. They also received training in decoding the broadcasts when they were recruited.

The DEIN STAR table to decode the messages had numbers 0-9 along the top with DEIN STAR written underneath with the rest of the alphabet after it. There were two digits on the side of the grid and it was read like a map. Another grid using the Polish words ZA OWIES was used for non-German speakers and a similar grid for decoding the message, It sounds complex but likely okay when done a few times.

The Frankfurt station broadcast on afternoons and evenings on Monday, Thursday and Sunday on frequencies 3370 and 4010 with an agent having ten opportunities to receive their message. In October 1974 one controlled agent had twenty opportunities each week to hear a broadcast on two frequencies.
The Munich station broadcast on Monday, Wednesday, Friday and Sunday at 2000 and 2130. The frequencies were 4543, 5015, 5181, 5182, 5732, 5770, 7740 and 7858kHz. Agents with transmitters were told which crystal to use from frequencies 2656 to 12210.

All BND callsigns were three digits with a Foxtrot melody as well for five minutes. The first group would indicate the correct pad to use and the broadcast numbers would be subtracted from the digits on the pad with no carrying of numbers. This would then be compared to a table and key to reveal the message. Methods varied from agent to agent perhaps?

Our State Security noted that the American ClA avoided BND fixed elements such as the key, schedules or call signs. The US would provide a radio receiver, keys, tables, pads and a book cipher. Their system was more complex and time consuming than the West German.

For example, an agent called Jerzy Strawa used a trade fair catalogue for his CIA messages and keys based on the words KARTEN, KOSAK and his wife's date of birth. The word KARTEN was written along the top of a grid and KOSAK down the left and this was used to locate letters on a grid. A book could also be used to fill in the grid.
The date of the radio transmission was used as the day of the year then ten was added to it. This gave the page number of the book. The day of the month indicated the verse on the page and this was copied to produce groups in lines of ten characters. A table covered in letters was then usedto break out the message.
He also had a burst data receiver and cipher pads. His book was later changed to a health lexicon at some stage.

Strawa used a Telefunken receiver and was an official in our Ministry of Foreign Trade. He travelled frequently to West Germany and was recruited by the CIA in 1960. He was trained and reported on economics, factories and defense installations. He sent over 150 secret writing reports and one was intercepted by State Security who detected secret writing chemicals. He was traced by his handwriting and placed under surveillance.

Bugging wasuseless because he used headphones with his radio so no received messages were heard in his apartment. It was noticed that he did not leave his flat on a certain day after a certain time which fitted with a change in the timing of his CIA broadcast. His apartment was searched upon his arrest and spy materials were found. He had spied mainly for money and was executed by firing squad in 1967.
Despite this more people continued to work for the west with the appeal of money and a better life likely encouraging them.

The secret Polish collaborators used 5 x 8.8cm cipher pads with a variety of keys using subtraction with no carrying over and the two digit groups were compared to a key. Our State Security noticed that broadcasts also came from London, Cyprus, Athens, Ankara and Bodoin Norway.

The CW broadcasts had power of 1-10kw with AM voice using 10-20kw. Voice messages had 10-80 groups with 46 digit morse sent at 4-20 groups per minute. According to the report, BND used one way links from 1956 to communicate with agents behind the Iron Curtain. Two way operations were used in the Third World. From 1957 the BND used burst transmissions which were hard for Polish special services to detect. In 1973 one hundred bursts were detected but only five in 1977, likely as technology improved. The callsign DFD21 was noted on 4010kHz from 1953 and DFC37 on 3370kHz from 1951 according to the document.

Ordinary commercial SW receivers were used in operations but the BND sometimes provided a transverter if the agent's radio did not have this band. The unit had a 4.5v battery with two sockets and crystals. The external antenna went in one socket and the second socket connected to the aerial socket of the radio so turning it into a SW set. The BND advised unplugging the crystal from the radio so it did not oscillate when not in use in order to defeat SlGlNT.

In the 19605 portable burst transmitters entered service which ran on mains power or batteries with a speed of 90-360 baud. Some used magnetic tape and in January 1977 a BND broadcast of 600 baud was detected.

These are interesting revelations from declassified communist-era official papers. How much more is hiding in the files around the world such as KGB monitoring of stations? Where are all these agents now, dead or retired?

It is interesting how many of the agents in Poland were false and how did they deceive the west? We were a top intelligence target as any attack on NATO would have to be supported by Polish road and rail with our military part of the Soviet planning process. We were probably an easier intelligence target than USSR with many Polish people in the west with contacts in the country and more access to us thanSoviet citizens, military and officials.

Many Poles also not liked the Soviet presence and the country not being free despite England having gone to war in 1939 for us. After all the fighting we were still not free or independent! Many Poles were murdered after the war but people were still willing to help the west at great risk. The agents in the period covered by the report gathered military, defense. political and economic data. but many had no specific task or target. They were eyes on the ground with hearing as well (not just for numbers)!

Long messages often related to money/payments or comments on reports sent to the west using invisible ink or address changes for secret writing to be sent to.

Our position in Europe makes us at risk from a traditional enemy and on the front line of any future conflict in a dangerous and unstable world which can change quickly.

Intelligence is vital to national survival and the radio communications continue to this day as you all know.

73!T.C *Many thanks for a very interesting article Tomasz*

Newsround

Great Britain

Diplomats expelled after engaging in ‘classic British espionage’

https://www.telegraph.co.uk/world-news/2024/09/13/moscow-british-diplomats-expelled-russia-ukraine-zelensky/#1726221744617

Six diplomats were expelled by Russia after officers became “tired” of chasing them around Moscow as they engaged in “classic British espionage”, an FSB employee told Russian state-controlled news channel Rossiya-24.

This reportedly included making rapid changes of public transport and “sitting for several hours on benches in the freezing cold” as they waited to meet members from banned groups.

Their spouses were allegedly deployed as spies, while young children were used to ‘cover up’ their spying activity, the officer added. “Basically, one cannot speak of any diplomatic etiquette,” the officer told the news channel.

10:48AM
UK attacks ‘baseless’ Russian claims that six diplomats are spies
The Foreign Office has rejected Russia’s “baseless” claims that six British diplomats who were expelled from Moscow were spies.

“The accusations made today by the FSB against our staff are completely baseless,” an FCDO spokesman said.

“The Russian authorities revoked the diplomatic accreditation of 6 UK diplomats in Russia last month, following action taken by the UK government in response to Russian state directed activity across Europe and in the UK.

“We are unapologetic about protecting our national interests.”

10:26AM
Russian media names expelled diplomats
Russian state media have named the diplomats expelled from Moscow as Jessica Davenport, Grace Elvin, Callum Duff, Catherine McDonnell, Thomas Stevenette and Blake Pattel.

Ms Davenport was previously a second secretary and assistant to Nigel Casey, the Russian ambassador. Mr Duff, Mr Pattel and Mr Stevenette are also second secretaries, according to the Russian foreign ministry website. Ms McDonnell is a first secretary.

10:09AM
British expats ‘expelled from Moscow in August’
Six British diplomats who were expelled from Moscow over accusations of spying and sabotage left the country in August, a Whitehall source told Sky News.

Their removal was part of a wave of tit-for-tat expulsions, the source added.

Russia said on Friday it had revoked the accreditation of six British diplomats in Moscow whose actions it claimed showed signs of “spying and sabotage”.

The FSB said it had documents showing that a British Foreign Office department in London was coordinating what it called “the escalation of the political and military situation”.

The six diplomats were named on Russian state TV, which reportedly showed photographs of them leaving the country.

https://www.telegraph.co.uk/world-news/2024/09/13/moscow-british-diplomats-expelled-russia-ukraine-zelensky/#1726221744617

Ambassador tells Chinese students at Cambridge University to ‘serve the motherland’ Zheng Zeguang’s private visit is latest in string of meetings with country’s citizens at British universities

China, University of Cambridge, Students, International students, Education News
20 September 2024 5:58pm

https://www.telegraph.co.uk/news/2024/09/20/chinese-ambassador-students-serve-motherland-cambridge-uni/?msockid=283b815d6ce961c51aa494576d766088

Ambassador Zheng Zeguang also urged the students to become ‘capable of shouldering heavy responsibilities’ following the completion of their degrees
The University of Cambridge hosted a private visit from the Chinese ambassador last week, during which he told Chinese students to “serve the motherland”, The Telegraph can reveal.

Zheng Zeguang, the country’s ambassador to the UK, was welcomed to the institution last Thursday where he held discussions with senior officials, including Prof Deborah Prentice, Cambridge’s vice-chancellor.

Mr Zheng was also allowed to pay a “special visit” to Chinese students during the trip, where he told them to “take patriotism [for China] as the foundation” of their studies at Cambridge.

He was also allowed to hold meetings with Chinese students at Oxford and Nottingham universities in April.

A report of the Cambridge visit in Chinese media said the ambassador told around 20 Chinese students they should "serve the motherland as soon as they finish their studies and become pillars of the country who are capable of shouldering heavy responsibilities".

Mr Zheng also "briefed the students on the achievements of China's development [and] inspired them to love the country", it added.

Cambridge currently hosts about 2,000 Chinese students, who make up the largest international intake at the university.

It marks the latest in several private meetings between China's ambassador to the UK and Chinese students enrolled at British universities in recent months.

Zheng Zeguang, China's ambassador to the UK, met with several senior officials, including Prof Deborah Prentice, Cambridge's vice-chancellor, during his visit to the university
Mr Zheng visited the universities of York and Birmingham last summer, where he met with Chinese students and called on them to "keep in mind" the teachings of Xi Jinping, the Chinese president.

None of the universities appear to have shared any details of the events on their official websites or UK social media, although Chinese state photographers were welcomed to the events.

It comes after growing concerns about Chinese influence over UK universities and fears that Chinese Communist Party officials are surveilling students from afar.

The Telegraph understands that the Chinese embassy has persistently messaged some universities in recent months asking to arrange meetings with their Chinese student bodies on campus.

'Exerting influence'
MPs and peers on Parliament's intelligence and security committee claimed last year that Beijing had actively sought to "monitor and control Chinese students' behaviour" at British universities through a network of more than 90 student Chinese student groups, partly funded by the Chinese embassy.

It warned that there was a "culture of fear and suspicion among Chinese students in the UK", and that "pressure is exerted on institutions, academics and students to prevent engagement with topics that harm the positive narrative presented by the Chinese Communist Party".

Lord Patten, the outgoing Oxford chancellor, told The Telegraph last week that he was concerned that universities are treating Chinese students differently to their peers "for fear of being ticked off by the Chinese government".

"How do you make sure that there aren't reports going back to the Chinese government and the Chinese authorities about the way another Chinese student or a Hong Kong student is behaving? I mean, we shouldn't pretend to ourselves that those things don't happen," he said.

Protests in Hong Kong in October 2014
Concerns have been raised that China could be spying on students in the UK who fled Hong Kong following restrictions on protests in the territory
More than 150,000 Chinese students are currently enrolled at British universities and until recently they made up the largest foreign student intake of any country.

The number of students from India overtook China for the first time last year, but applications from many countries are thought to have dwindled in recent months because of the new ban on student dependants.

It could mean Chinese students, who are favoured by universities since they typically come to the UK without family members and have more disposable income, will be lured to fill the gap.

Previous analysis by The Telegraph found they contribute about £5.9 billion to the UK university sector through tuition fees alone.

A report by the Civitas, a think tank, published last November also showed that UK higher education institutions received up to £156 million in funding from Chinese sources between 2017 and 2023.

About a third of that, or as much as £51 million, came from sources linked to the Chinese military or entities banned by the US, the study claimed.

Cambridge University received between £18 million and £44 million from 24 separate Chinese entities over that period, according to freedom of information requests.

The Chinese government said it hoped its collaboration with the University of Cambridge would 'deliver more fruitful outcomes'
At last week's meeting in Cambridge, Mr Zheng and Prof Prentice are said to have discussed "the prospect of continuing to develop mutually beneficial cooperation with Chinese universities", according to a post on the Chinese government's website.

It added that the Chinese embassy "hoped that Cambridge's collaboration with China will deliver more fruitful outcomes".

Parliament's intelligence and security committee report, which was published last year, said that "academia provides China with a key means of exerting influence" in Britain.

It added: "Chinese attempts to interfere with and stifle debate amongst the academic community in the UK are a significant problem, made possible by China's academic 'buying power'."

Security concerns 'groundless'
Sir Keir Starmer, the Prime Minister, has so far declined to call China a "threat" since winning the election, but has launched a major new defence review and a separate audit of UK-China relations.

Lord Robertson of Port Ellen, a former secretary-general of Nato and the external head of the review, warned in July that China was among the countries that posed a "deadly" threat to Britain.

He said China was becoming increasingly confident and that "what happens in the Asia-Pacific can happen in the Euro-Atlantic very quickly afterwards".

A Cambridge University spokesman said: "Like many other universities, we regularly welcome overseas ambassadors who ask to visit students from their countries.

"The University of Cambridge is not and never has been dependent on China. Less than 1 per cent of our annual research grant is derived from China."

The Chinese embassy told The Telegraph that its official policy is to "encourage Chinese students studying in the UK to return to China and contribute to the nation after completing their studies here, and it reflects the expectations of the Chinese government towards overseas students".

A spokesman added: "Educational exchanges and co-operation between China and the UK are in the interest of both sides.

"The ambassador and our diplomats will continue to visit British educational institutions and schools at invitation, to promote bilateral exchanges and co-operation with the UK side.

"The so-called security concerns over China-UK educational co-operation are groundless.

"We care deeply about overseas Chinese students and are resolute in safeguarding their personal safety and legitimate rights and interests, and will continue to learn about their situations through visits and provide them with better services.

"It is also the common practice and duties for the embassies of other countries."

A spokesman for Oxford University said: "The vice-chancellor, as part of her duties, regularly meets with ambassadors to the UK. She was pleased to accept Mr Zheng's offer to meet, making him the seventh ambassador she had met since being in office.

"Under our free speech policy, students are at liberty to attend events expressing a variety of views, and also to explore challenging and dissenting views."

The Telegraph understands that no university staff were present in the meeting between Mr Zheng and Oxford students during the visit to the university in April and that it was arranged independently by the Chinese embassy.

Sam Dunning, director of UK-China Transparency, said: "As highlighted by research from Amnesty International, UK-China Transparency, and others, the Chinese Communist Party monitors and harasses dissident students at UK universities. There is strong evidence that Chinese diplomatic staff are complicit in this.

"UK universities have a legal responsibility to take steps to protect the freedom of speech of all their students. Did Cambridge executives raise this with the ambassador? Will they speak out in defence of their members? Or is this a taboo topic for our great centres of learning?"

https://www.telegraph.co.uk/news/2024/09/20/chinese-ambassador-students-serve-motherland-cambridge-uni/?msockid=283b815d6ce961c51aa494576d766088

Israel [Technical]

The Iron Dome's drone flaw – and how to fix it
Sensors could be solution as forces worry that drone 'swarms' could overwhelm Israel's urban centres

Jotam Confino
Tel Aviv
14 October 2024 7:00pm BST

https://www.telegraph.co.uk/world-news/2024/10/14/israels-iron-domes-drone-flaw-and-how-to-fix-it/

Israeli soldiers hadn't even finished their dinner when they heard a "crazy boom" at their training base in northern Israel.

"The iron door bent. We didn't know what happened, and suddenly something pierced through the ceiling. We didn't hear anything before, just the huge blast. No sirens went off," a soldier inside the Golani Brigade training base told Ynet news.

The boom was caused by a Hezbollah-launched drone that evaded Israeli fighter jets and struck the base in Binyamina, just south of Haifa. Four soldiers were killed in the attack, with 60 more injured.

The Israeli army's preliminary investigation into the attack revealed that the Lebanese terror group launched two Sayyad 107 drones from the Mediterranean into Israeli airspace shortly before 7pm local time.

One drone was detected and intercepted near the coastal city of Nahariya, but the other evaded Israeli tracking by lowering its altitude, before hitting the elite Golani brigade training base in Binyamina, northern Israel.

Tables were largely left intact, but pools of blood permeated the dining room, hallways and kitchen.

It was the deadliest drone attack launched against Israel since Oct 7. But it was by no means the first.

Israel has been attacked by hundreds of drones in the last year, mainly by Hezbollah in Lebanon, but also from Yemen, Syria, Iraq, and Iran.

Earlier this month, two soldiers were killed in the Golan Heights when a drone from Iraq hit their base.

Images from inside the dining hall of the Golani Brigade training base near Binyamina after a Hezbollah drone attack, resulting in the deaths of four recruits

On July 19, the Houthi rebels sent a large drone from Yemen all the way to Tel Aviv without detection. The drone smashed into an apartment building, killing an Israeli civilian.

The Iron Dome's fatal flaw

While most of the focus has been on Hezbollah's huge collection of precision-guided missiles, Israel has found that much smaller and less aggressive drones are posing just as big of a challenge, if not bigger.

In the past 12 months, hundreds of drones from Lebanon, Iraq, Syria, Yemen and Iran have infiltrated Israeli territory on a daily basis, often without setting alarms.

The drones have crashed into apartment buildings, highways, kindergartens, and military installations.

Some experts fear that the rise in these attacks have exposed a possible flaw in the Iron Dome: it wasn't designed to deal with drones.

The Iron Dome consists of a series of batteries that use radars to detect short-range rockets, missiles and drones.

But the prevalence of cheap drones, as also seen in the war in Ukraine, has been causing problems for Israel owing to their ability to evade the Iron Dome.

The drones are often flown through Israel's northern mountains and valleys at "a very low altitude", according to Amnon Sofrin, the former head of Mossad's intelligence directorate.

That the drones are flown at low altitude means they are often under the Iron Dome's radar, making it "very difficult" for the Israeli military to shoot them down, as played out in Binyamina on Sunday and Yemen in July.

How Hezbollah are using this to their advantage

James Patton Rogers, a drone expert and executive director of the Cornell Brooks Tech Policy Institute, suggested this reflected a "broad neglect of air defence for over a generation", which non-state actors like Hezbollah have sought to capitalise on.

"They fly [drones] slowly and reduce their electronic output to reduce their radar signature and chance of detection, and have increasingly used materials like carbon fibre that are harder to detect," he added.

The cure
The fact that Hezbollah was able to fire an undetected drone and strike an Israeli air base, killing several soldiers, raises serious security questions for Israel.

Defence chiefs face the prospect of further drone "swarms" that could overwhelm urban centres.

Onn Fenig, who runs a defence software company, says he is working on a solution to the drone issue.

"A 1000-pound drone can take out a three million-pound tank. We have seen this in action in Ukraine and this is what the IDF should assume it will face in Lebanon, if and when a ground entry happens," he warned in an interview with The Telegraph.

His software works by using AI-powered sensors that could be placed all across Israel and algorithms to detect drones flying low in the sky.

The drones are picked up by R2's sensors in real time, before being classified and geolocated

The information would be automatically channelled to the IDF who could shoot the drones down with traditional weaponry or targeted air defence systems.

He said the IDF is working with R2 in "various contexts and locations to detect drones" but is yet to incorporate its new software.

In the meantime, the Pentagon confirmed it would send a missile battery to bolster Israel's defences in anticipation of a further barrage from Iran.

Asked on Sunday why he had taken the decision, Mr Biden replied: "To defend Israel."

The decision was taken after Iran fired 180 ballistic missiles at Israel, piercing its Iron Dome defence system in some places.

https://www.telegraph.co.uk/world-news/2024/10/14/israels-iron-domes-drone-flaw-and-how-to-fix-it/

Pakistan

Who is Pakistan's new spy chief Asim Malik?
A decorated officer, Malik takes charge of an agency that's often caught in controversy but is central to the functioning of the armed forces.

Lieutenant General Asim Malik has been appointed as chief of Pakistan's premier intelligence agency ISI [Handout/Inter-Services Public Relations]
By Abid Hussain
Published On 24 Sep 2024
24 Sep 2024

https://www.aljazeera.com/news/2024/9/24/who-is-pakistans-new-spy-chief-asim-malik

Islamabad, Pakistan – Pakistan's military has announced the appointment of Lieutenant General Asim Malik as the new head of the country's premier intelligence agency, the Directorate of Inter-Services Intelligence (ISI).

Malik will assume his role on September 30.

Before this appointment, he served as the adjutant general (AG) at the army's general headquarters, overseeing military administrative affairs, including legal and disciplinary matters, for the past three years.

The ISI chief is often seen as the second-most powerful person in the military after the Chief of Army Staff — in a country where the military is the most powerful institution.

The outgoing ISI chief, General Nadeem Anjum, took office in November 2021 under then-Prime Minister Imran Khan. His tenure, extended by a year in September 2022, coincided with significant political upheaval, including Khan's ouster through a parliamentary vote of no confidence in April 2022 – a move Khan attributed to military interference, a charge that the military has consistently rejected.

Malik, a highly decorated officer who enjoys goodwill within Pakistan's close-knit military community, has not been immune from that tumult either.

Who is Asim Malik, the new ISI chief?
Malik, 59, has no direct experience in intelligence-related postings but has commanded infantry divisions in Balochistan and an infantry brigade in South Waziristan, areas that have been hotbeds of violence for nearly two decades.

He has also served as an instructor at Pakistan's National Defence University and the Command and Staff College in Quetta.

A top-performing cadet during his training, Malik is the son of Ghulam Muhammad Malik, who was a three-star general in the 1990s and held prominent positions during his career.

Asim Malik is a graduate of the Royal College of Defence Studies in London and Fort Leavenworth in the United States, where he wrote a thesis on mountain warfare.

Retired Lieutenant General Naeem Khalid Lodhi, who served with Malik's father, describes the incoming spy chief as a quiet yet highly respected officer.

"Even as the AG, he did substantial work for the welfare of retired soldiers, particularly concerning pensions and other related issues," Lodhi told Al Jazeera. He said Malik is credited with resolving concerns over delays in pensions and the medical treatment of veterans during his time as AG.

However, Malik's tenure as AG also coincided with a crackdown on former PM Khan and his Pakistan Tehreek-e-Insaf (PTI) party, leading to the arrest of numerous party supporters and leaders.

After Khan was detained briefly on May 9 last year, many PTI supporters went on a rampage and damaged public property and military installations. Thousands were arrested, and just about 100 individuals faced military trials under the supervision of the AG.

Last year, the army also announced prison sentences for two retired officers – a major and a captain – on charges of "inciting sedition" after court-martial proceedings. In August, former ISI chief General Faiz Hameed, along with three other former military officials, was also arrested for court-martial proceedings.

A former colleague of Malik, a retired general, says his appointment reflects the trust placed in him by General Asim Munir, the current army chief.

"In normal circumstances, with his career trajectory, Malik would have been given command of a corps. But with less than 20 months until his retirement, that's unlikely. His appointment to the ISI underscores the strong confidence Munir has in him," the former general said, requesting anonymity due to his familiarity with Malik.

However, he also acknowledged that the roles of AG and ISI chief come with inherent controversies and that, in many ways, Malik must now in his new job be willing to do the dirty tricks his current role would have needed him to drown upon.

"AG's job is to ensure complete discipline in the institution and to take to task those who fail to uphold it. Whereas in the ISI, the job requires one to undertake unsavoury tasks which are controversial by nature," he added. "Both these positions contradict each other."

The legacy of the outgoing ISI chief
Founded in 1948, the ISI is Pakistan's equivalent of the CIA in the US, the British MI6 or India's Research and Analysis Wing (RAW). While the agency officially reports to the prime minister, the army chief recommends the appointment of its head.

However, the intelligence agency is also highly controversial, with its critics describing it as a "state within a state".

The Pakistani military itself remains the single most powerful institution in the country, which wields considerable influence on the country's political and foreign policy sphere, with the ISI often playing the role of enforcer.

Anjum's appointment as ISI chief in November 2021 was contentious, causing a rift between then-army chief General Qamar Javed Bajwa and then-Prime Minister Khan.

At the time, General Hameed, now facing a court martial, was the ISI chief, and Khan insisted he should continue in the role. Khan's critics say Hameed was seen as Khan's enforcer against his political rivals — a charge the former PM has repeatedly denied.

However, critics allege that under Anjum, the ISI continued to act in a manner that could be viewed by some as politically partisan, through its role in the crackdown against Khan's political party, PTI.

"I personally feel that Hameed was the wrong choice to lead ISI, but was brought by Bajwa, then army chief, to do his bidding," said the former general who was also Malik's colleague. "However, Anjum's era saw a doubling down on those policies of repression and surpassed those."

The military and the ISI have consistently denied acting against Khan and his party because of political reasons, arguing that the crackdown against the PTI has been driven by legal considerations alone.

What lies ahead for the ISI under Malik?
Lodhi said he doubts whether Malik's appointment could portend major changes in the ISI's functioning.

"The way institutions work, these appointments don't change direction or policies in a drastic manner," he said.

The former three-star general, also a former war college instructor, echoed this sentiment. "Every new leader brings some change. Malik is known as a 'gentleman officer' – decent and well-regarded. But whether he can significantly improve the institution's legacy remains to be seen."

Source: Al Jazeera
https://www.aljazeera.com/news/2024/9/24/who-is-pakistans-new-spy-chief-asim-malik

Russia

Russia expels 6 British diplomats it accuses of spying. The UK calls it ‘completely baseless’

By DASHA LITVINOVA and JILL LAWLESS
Updated 11:18 PM BST, September 13, 2024

https://apnews.com/article/russia-uk-spying-7845e3554c753388e8c952733589fb7f

Russia on Friday accused six British diplomats of spying and said it decided to expel them. The U.K. said the “completely baseless” move came weeks ago and was linked to its action in May to revoke the credentials of an attaché at the Russian Embassy and limit Moscow’s diplomatic activities in London.

The latest East-West tensions unfolded as British Prime Minister Keir Starmer visits Washington for talks that will include Ukraine’s request to use Western-supplied weapons to strike targets inside Russia. President Vladimir Putin has warned that Kyiv’s use of long-range weapons would put NATO at war with Moscow.

Russia’s Federal Security Service said in an online statement that the Foreign Ministry withdrew the British envoys’ accreditations, and Russian TV quoted an FSB official as saying it was decided to expel them.

The FSB said it received documents indicating the diplomats were sent to Russia by a division of the U.K.'s Foreign Office “whose main task is to inflict a strategic defeat on our country,” and that they were involved in “intelligence-gathering and subversive activities.” It did not identify the six diplomats.

The FSB warned that if other diplomats are found to be carrying out “similar actions,” it “will demand early termination of their missions” to Russia

Foreign Ministry spokesperson Maria Zakharova said in a statement that the diplomats were carrying out “subversive actions aimed at causing harm to our people.”

“We fully agree with the assessments of the activities of the British so-called diplomats expressed by the Russian FSB,” she added in an online statement. “The British Embassy has gone far beyond the limits outlined by the Vienna Conventions.”

Kremlin spokesperson Dmitry Peskov said breaking off diplomatic relations with the U.K. was not on the table right now.

In calling the Russian allegations “completely baseless,” the U.K. Foreign Office said the expulsions happened weeks ago, linking them to Britain’s decision in May to revoke the credentials of an attaché at Moscow’s London embassy and to impose a five-year time limit on all Russian diplomats in Britain.

“The Russian authorities revoked the diplomatic accreditation of six U.K. diplomats in Russia last month, following action taken by the U.K. government in response to Russian state-directed activity across Europe and in the U.K.,” the Foreign Office said in a statement. “We are unapologetic about protecting our national interests.”

In May, the U.K. expelled Russia’s defense attaché in London, alleging he was an undeclared intelligence officer, and it closed several Russian diplomatic properties in Britain that it said were being used for spying. About a week later, Russia reciprocated and expelled Britain’s defense attaché.

Expulsions of diplomats — both Western envoys working in Russia and Russians in the West — have become increasingly common since Moscow launched its invasion of Ukraine in 2022.

Last year, the Russian news outlet RBC counted that Western countries and Japan expelled a total 670 Russian diplomats between the start of 2022 and October 2023, while Moscow responded by expelling 346 diplomats. According to RBC, that was more than in the previous 20 years combined.

On his way to visit the U.S., Starmer said Britain does not “seek any conflict with Russia.”

“Russia started this conflict. Russia illegally invaded Ukraine. Russia could end this conflict straight away,” he told reporters.

“Ukraine has the right to self-defense and we’ve obviously been absolutely fully supportive of Ukraine’s right to self-defense — we’re providing training capability, as you know. But we don’t seek any conflict with Russia — that’s not our intention in the slightest,” he said.

Ukraine wants approval to use some weapons to strike deeper into Russia and there are signs that President Joe Biden might shift U.S. policy in response.

While the issue is expected to be at the top of the agenda for their meeting, it appeared unlikely that Biden and Starmer would announce any policy changes at this time, according to two U.S. officials familiar with planning for the talks. The officials spoke on condition of anonymity because they were not authorized to discuss the private deliberations.

Ukrainian officials renewed their pleas to use Western-provided long-range missiles against targets deeper inside Russia during this week’s visit to Kyiv by U.S. Secretary of State Antony Blinken and British Foreign Secretary David Lammy.

Blinken said he had “no doubt” that Biden and Starmer would discuss the matter during their visit, noting the U.S. has adapted and “will adjust as necessary” as Russia’s battlefield strategy has changed.

Litvinova reported from Tallinn, Estonia, and Lawless reported from London. Associated Press writer Aamer Madhani in Washington contributed.

https://apnews.com/article/russia-uk-spying-7845e3554c753388e8c952733589fb7f

Turkey

Turkey charges Mossad 'financier' with espionage against the state
Case of spy agency backer comes amid major downturn in relations with Israel

Lizzie Porter
Istanbul
September 03, 2024

https://www.thenationalnews.com/news/mena/2024/09/03/turkeys-counter-terrorism-unit-arrests-chief-mossad-financier-in-istanbul/

Turkish authorities have charged a Kosovan national with "espionage against the state" after he channelled funds to agents for Israel's external spy agency Mossad, according to two security officials and state media, in a case likely to further strain relations between the two countries.

Liridon Rexhepi entered Turkey on August 25 and was arrested five days later in Istanbul by a counter-terrorism unit, following work by the Turkish intelligence service MIT. He is being remanded in custody awaiting trial and sentencing, a Turkish security source told The National.

"MIT determined that Liridon Rexhepi was the person who managed Mossad's money network in Turkey," the source said.

A second Turkish security source confirmed to The National that Mr Rexhepi has been charged with "espionage against the state," after authorities concluded that he transferred money to Mossad field agents in Turkey who were operating drones, conducting "psychological operations" against Palestinian politicians and compiling information about Syria for Israel. He admitted to making money transfers in a statement to the police, one of the sources added.

"As a result of operations conducted by the National Intelligence Organisation, it was determined that Mossad provided money transfers to its field personnel in Turkey from Eastern European countries, especially Kosovo," one of the sources said. Wires of unspecified amounts were made through Western Union, the source said, while other transactions involving agents in Syria used cryptocurrency. It was not clear when the transactions were made or over what period of time they continued.

Turkish security services said they arrested Mossad's chief financier in the country, a Kosovan citizen, Liridon Rexhepi. Photo: Turkish security services

In a statement, Istanbul's counter-terrorism directorate also said that Rexhepi held meetings with Israeli intelligence agents, "collected information and documents about individuals targeted by the Israeli intelligence service in Turkey", and "took photographs, videos and drone shots" at targets' homes.

A second individual identified only as Y. B. was detained at the same time as Rexhepi, but was later released, the statement added. The counter-terrorism directorate released video of the arrest operation, showing police officers leading two handcuffed men into an unmarked vehicle.

The Israeli embassy in Ankara has declined to comment.

Relations between Turkey and Israel have soured dramatically since the October 7 attacks by Hamas on southern Israel, which killed about 1,200 people and led to the war in Gaza. President Recep Tayyip Erdogan and other Turkish leaders have voiced support for Hamas and criticised Israel's conduct in its military operations, which have killed more than 40,800 people in the Palestinian enclave since the war began.

Turkey banned trade with Israel in May over the war and Mr Erdogan and Israeli Prime Minister Benjamin Netanyahu have traded barbs on social media.

Israeli officials have criticised the Turkish government for hosting Hamas members in the country and said the trade ban harms companies from both countries. Before the war, the two nations shared trade worth hundreds of millions of dollars a month and had been rebuilding bilateral relations bruised by previous rifts. Despite the current fallout, Israel and Turkey have not cut their diplomatic ties.

The Turkish government has come under significant public pressure over its ties with Israel. Hundreds of protesters gathered in Istanbul on Sunday to demand a boycott of companies they accuse of supporting Israel, and last week activists, including Palestinians, were arrested in the same city for protesting against Azerbaijani oil exports to Israel, which flow through a pipeline across Turkey before being shipped over the Mediterranean Sea, the demonstrators said.

Turkey has conducted previous operations to arrest alleged operatives from Mossad and other countries' intelligence services.

"The publication of stories about supposedly Mossad agents being arrested in Turkey are on the rise in recent years," Gallia Lindenstrauss, a senior research fellow at the Tel Aviv-based Institute for National Security Studies, told The National.

"They are a reflection of the sharp deterioration in the relations between Turkey and Israel and that the countries have fewer shared interests and hence it is also less important to maintain working security co-operation."

This year, Turkish security forces announced they had arrested about three dozen people across the country accused of spying for Israel. Turkish police and intelligence forces raided 57 sites across eight provinces, apprehending 33 people suspected of working for Mossad.

"Obviously, such stories are also meant to be embarrassing for Israel," Ms Lindenstrauss said. "In previous instances, Israel did not respond to the allegations and this is likely to be the case this time."

https://www.thenationalnews.com/news/mena/2024/09/03/turkeys-counter-terrorism-unit-arrests-chief-mossad-financier-in-istanbul/

United States

Obituary:

Edward B Johnson, the other CIA officer who pulled off the Argo rescue of US diplomats from Iran
He was left out of the Ben Affleck film because only his code-name ‘Julio’ was known – but the CIA identified him in a podcast last year

12 September 2024 6:00am

https://www.telegraph.co.uk/obituaries/2024/09/12/edward-johnson-argo-iran-america-diplomats-affleck/

Edward B Johnson receiving the CIA's Intelligence Star from John N McMahon, then the agency's deputy director for operations, in May 1980

Edward B Johnson, who has died aged 81, was a CIA officer who was recently revealed to have taken part in the flamboyant 1980 rescue of US diplomats from Iran under the guise of a B-movie production, an operation later dramatised in the Oscar-winning film Argo (2012).

The six diplomats had escaped the storming of the American embassy in Tehran on November 4 1979 and had spent 79 days in hiding at the residence of the Canadian ambassador. The plan eventually cooked up, nicknamed the “Canadian caper”, was that they should emerge posing as a Canadian film crew, joined by Ed Johnson, an exfiltration specialist, and Tony Mendez, a CIA disguise expert, to scout Iranian locations for a cheap Star Wars knock-off with the working title Argo, and then leave by aeroplane under fake Canadian passports.

The Planet of the Apes make-up artist John Chambers tipped off Mendez about a long-binned script for a movie meant to promote a Middle Eastern-themed sci-fi theme-park ride, which already had concept art by the Marvel comic artist Jack Kirby.

The Hollywood version of the rescue depicted Mendez as a lone operative, although his 1999 memoir The Master of Disguise referred to a second CIA man, under the cover name “Julio”. But Johnson’s role was so heavily classified that even the commemorative painting of the pair at the CIA headquarters at Langley, Virginia, shows Mendez clearly but only the back of Johnson’s head (and even that the painter had to model on the back of another CIA agent’s head, for security).

A painting hanging at the CIA's headquarters in Langley, Virginia, of Antonio 'Tony' Mendez, face visible, and Edward B Johnson preparing documents to smuggle American diplomats out of Tehran in 1980

The identity of “Julio” was eventually disclosed in 2023 in the CIA’s podcast The Langley Files, which described Johnson as “someone with years of experience in quietly getting people out of dangerous places”. He and Mendez had worked together at the CIA’s Office of Technical Services, essentially their gadget, makeup and forgery department.

When they landed in Tehran, Johnson impressed Mendez by deftly pilfering a stack of the yellow slips to be filled out by those entering and leaving Iran. But they ran into trouble when their inaccurate tourist’s map took them not to the Canadian embassy but to the Swedish one, which was directly opposite the American embassy where the remaining staff were being held hostage by the Revolutionary Guard.

Johnson recalled that “all the demonstrators were there [but] they were quiet because the camera trucks weren’t there... they were just chilling”.

There was a nasty moment when a young Revolutionary Guard walked over to quiz Johnson and Mendez on what they were doing, but it turned out that he “had spent a year in Germany, was a student, so I spoke in German to him,” recalled Johnson, “and we chatted a bit.” The Iranian helpfully installed the CIA men in a taxi to the correct address, and even refused a tip.

Johnson and Mendez then drilled the hidden diplomats on how to pass for Hollywood players rather than State Department suits. “These are rookies. They were people who were not trained to lie to authorities. They weren’t trained to be clandestine,” recalled Johnson. “The biggest thing I think we did was to convince them that you can do it.”

When they finally boarded the Swissair flight out of Tehran, Johnson was spooked by a number of coincidences: the word ARGAU was painted on the aircraft, and one of the answers in that day’s Herald Tribune crossword was “Argonauts”. Johnson later joked: “I didn’t know that CIA was that good.”

Edward Bernard Johnson was born in Brooklyn on July 29 1943, and brought up on Huntington Station, Long Island. His mother was a primary school teacher and his father was an accountant.

Ed was a natural linguist, and added French at university to the Spanish he had picked up from Cuban and Puerto Rican friends. Later he learnt Arabic in Saudia Arabia, then travelled in Jordan and Egypt, before being accepted into the CIA. He then had “considerable exfiltration experience” relating to the Soviet Union, according to Mendez.

While he was in Tehran the CIA took the unprecedented step of ringing his wife, who did not know where he was, to deliver the enigmatic and not reassuring message: “He’s out.”

For the “Canadian Caper” Johnson received the CIA’s Intelligence Star, its second-highest award for valour.

In 1973, he married Aileen Heal, who survives him with five children.

Edward B Johnson, born July 29 1943, died August 27 2024

https://www.telegraph.co.uk/obituaries/2024/09/12/edward-johnson-argo-iran-america-diplomats-affleck/

US sees increasing risk of Russian ‘sabotage’ of key undersea cables by secretive military unit

By Jim Sciutto, CNN
Published 8:00 AM EDT, Fri September 6, 2024

https://edition.cnn.com/2024/09/06/politics/us-sees-increasing-risk-of-russian-sabotage-undersea-cables/index.html?cid=ios_app

The US has detected increased Russian military activity around key undersea cables, and believes Russia may now be more likely to carry out potential sabotage operations aimed at disabling a critical piece of the world’s communications infrastructure, two US officials told CNN.

Russia has put increasing emphasis on building up a dedicated military unit, which deploys a formidable fleet of surface ships, submarines and naval drones, according to one of the officials. The unit, the “General Staff Main Directorate for Deep Sea Research,” is known by its Russian acronym GUGI.

“We are concerned about heightened Russian naval activity worldwide and that Russia’s decision calculus for damaging US and allied undersea critical infrastructure may be changing,” a US official told CNN. “Russia is continuing to develop naval capabilities for undersea sabotage mainly thru GUGI, a closely guarded unit that operates surface vessels, submarines and naval drones.”

The US regularly tracks Russian ships that patrol close to critical maritime infrastructure and undersea cables often far from Russian shores, the official said. US concern about the secretive Russian unit’s undersea operations has not been previously reported. CNN has requested comment from the Russian Ministry of Defense.

Undersea cables form a critical backbone of internet and telecommunications traffic around the world. Most communications and internet traffic travels across a vast network of high-speed fiber-optic cables installed along the ocean floor. A coordinated attack could significantly disrupt private, government and military communications along such cables as well as industries that rely on such communications, including financial markets and energy suppliers.

Undersea cables also carry vast amounts of electricity among several European countries.

The US and its allies closely monitor Russian naval activity over key undersea cables around the world. Commanders aboard a NATO patrol vessel in April 2023 told CNN they had witnessed an increase of such activity over undersea cables in the Baltic Sea in recent years.

The seas around Northern Europe are a focus of such Russian military surveillance and activity. Last year, a joint investigation by the public broadcasters of Sweden, Denmark, Norway and Finland found that Russia has a fleet of suspected spy ships operating in northern European waters for potential sabotage of both undersea cables and wind farms.

Using data analysis, intercepted radio communications and intelligence sources, the broadcasters tracked over several years some fifty ships operating in the area, using underwater surveillance to map sites for potential attacks.

Taiwanese and US forces have seen similar activity by the Chinese Navy in waters around Taiwan, as I reported in “The Return of Great Powers” in March. “The activity looks like targeted harassment by Beijing – or an exercise in preparation for cutting off the whole of Taiwan,” Elisabeth Braw wrote in Foreign Policy magazine in February 2023.

Russia’s threatening activity has not been disrupted by its ongoing war against Ukraine. The Russian leadership places great value on GUGI, a US official told CNN, continuing to fund the unit even while waging war in Ukraine.

A US official told CNN the US would consider any such sabotage of undersea infrastructure as a significant escalation in Russian aggression outside of Ukraine.

“Any activities that damaged seabed infrastructure including undersea cables especially during periods of heightened tensions risks misunderstandings and misperceptions that could lead to unintended escalation,” the US official told CNN. “The US would be especially concerned about damage to our or our allies’ critical undersea infrastructure.”

https://edition.cnn.com/2024/09/06/politics/us-sees-increasing-risk-of-russian-sabotage-undersea-cables/index.html?cid=ios_app

USS Manchester had a satellite secretly installed on the top of the ship for crew to access Wi-Fi in remote locations

A senior officer has been court-martialed after she and senior crew members secretly installed Wi-Fi on a US warship to watch movies, text and check sports scores.

Grisel Marrero was command senior chief of the USS Manchester when an investigation by the Navy found she and other members of her crew had hidden a Wi-Fi device in a printer while deployed in the western Pacific with the US 7th Fleet.

The scheme involved installing a Starlink satellite dish on top of the ship at a cost of $2,800 (£2,131) and organising a payment plan of $1,000 a month for the Starlink bill.

Starlink, an Elon Musk company, uses satellites to provide high-speed internet access in remote locations. Ms Marrero claimed the Wi-Fi system was to boost morale, but the investigation found it was a breach of security.

“The danger such systems pose to the crew, the ship and the Navy cannot be understated,” the investigation said. “The installation and usage of Starlink, without the approval of higher headquarters, poses a serious risk to mission, operational security, and information security.”

The investigation found the scheme was led by Ms Marrero and involved the entire, 15-member chief’s mess. Rank-and-file sailors nor the ship’s command were involved.

‘The gig is up’

The scheme was uncovered when junior sailors suspected there was Wi-Fi onboard but the password was hidden from them. Despite several searches by the ship’s commanding officer, it was the Manchester’s combat systems officer who took a photo of the dish on the ship’s weather deck.

“The gig is up,” Ms Marrero texted one of the scheme’s participants.

When questioned about the network, Ms Marrero offered lies, false documents and misleading information to cover up the misdeed.

At a court martial earlier this year, Ms Marrero pleaded guilty to wilful dereliction of duty charge specifications, the Navy Times reported. Her rank was reduced to chief petty officer.

The officers who knew about but did not report the Wi-Fi were given administrative non-judicial punishment at commodore's mast.

"This agreement was a criminal conspiracy, supported by the overt act of bringing the purchased Starlink onboard USS Manchester," the investigation said.

https://www.telegraph.co.uk/world-news/2024/09/04/navy-commander-secretly-installed-wifi-american-warship/

How a U.S. spy tapped into Russian communication lines

Published Fri, Sep 13 20248:00 AM EDT
CNBC.com staff

https://www.cnbc.com/2024/09/13/how-a-us-spy-tapped-into-russian-communication-lines.html

In the late 1970s, American spy Jim Olson was stationed in Moscow. At the time, it was one of the riskiest and highest-stakes CIA stations in the world.

Olson, who served more than 30 years overseas, had been intercepting sensitive Russian information that was being sent over microwave transmissions. He knew that, if they were caught, it could mean spending the rest of their lives in a Soviet prison.

Many of the transmissions dealt with military and defense information, and they eventually discovered their tactic of intercepting these messages was under threat. Something more secure was in the works for the Russians: their communications were going underground.

"We know exactly what they're doing," Olson told CNBC Senior Washington Correspondent Eamon Javers on the latest episode of CNBC's new original podcast series "The Crimes of Putin's Trader."

For this series, Eamon Javers spent nearly a year investigating a criminal network and exploring how wealthy Russian hackers stole millions from U.S. investors. Javers interviewed FBI agents, prosecutors — and even spies like Olson — to reveal the shocking details of a massive criminal enterprise.

In episode six, Javers talks with Olson, who details his dangerous mission to retain a crucial well of information. After satellite images confirmed the Russians had already started digging the tunnels for the cable, the CIA operatives knew they had to do something quickly – before the well ran dry.

"We decided to go after it," he said.

Olson and two other operatives were designated for assignment in Moscow and trained on how to tap into those cables (and how to do it covertly).

But that mission wasn't easy: Olson had to disguise himself as a Russian peasant, taking a public bus out to the countryside on a route often patrolled by militia. He broke into a manhole on the side of a highway, monitored for potential poisonous gas (or Russian police) in the tunnel and lowered himself into the shadows.

Javers asked Olson what it feels like to go on such a mission, something he called "Mission Impossible stuff." He asked if fear ever entered his mind.

"Fear doesn't enter into it because you are so mission-focused," Olson said. "We just do what we're trained to do and it's a great sense of accomplishment when you carry something out like that."

For spies like Olson who put their lives on the line, motivation is everything.

"It's humbling because you have this sense that your country put that much trust in you to carry out that mission," Olson said. "And that you can make a significant contribution to our country's security – it's pretty heavy stuff."

https://www.cnbc.com/2024/09/13/how-a-us-spy-tapped-into-russian-communication-lines.html

Morse Stations

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

UNID CW – UM05 The Mystery French Morse Station Changes Frequency

This odd station provides, what appears to be, slow Morse practice, gives no call sign or other identification & after some experimentation with frequency use settled on 5435.8kHz, where it had continued for some time.

Ary, (AB), notes that the station was missing on this frequency on 22 October & was rediscovered the following day on 7542.8kHz with the same output of repeated words or single letters – Although some English words are sent, the majority are French, but no accentuated letters are used.

7542.8	1103z	29 Oct	Discussion	Applaudissement	T	Soleil	[etc…]		BR	TUE

Peter, (PoSW), monitored UM05 throughout September & October until it went silent on 5345.8kHz on 21 October. Thanks to Ary's report we now know that the station relocated to 7542.8kHz from 22 October onwards. Here are Peters logs & Comments:-

UM05 CW on 5345.8 kHz:- Has continued sending words in the French language and sometimes a single numeral or letter of the alphabet in September and October - but took a break in late September and has done so again in late October - at least on these occasions nothing was heard with any receiver and antenna combination available to me. Some observations from the past two months:-

01-Sept-24 Sunday:- 2013 UTC, sending "SCULPTURE".
02-Sept-24, Monday:- 0614 UTC, "VILLE"; 1910 UTC, "DIMANCHE".
03-Sept-24, Tuesday:- 0608 UTC, "V".
06-Sept-24, Friday:- 2006 UTC, "LAC".
13-Sept-24, Friday:- 1851 UTC, "ECOLE"; 1914 UTC, "POMME DE TERRE".
18-Sept-24, Wednesday:- 0706 UTC, "DANSE"; 2031 UTC, "TRAIN".
20-Sept-24, Friday:- 0658 UTC, "MIROIR".
Nothing heard when checked at 1911 & 2120 UTC, unusual not to hear activity in the late evening hours of darkness.
21-Sept-24, Saturday:- Nothing heard when monitored for several minutes after 0600 UTC.
23-Sept-24, Monday:- Nothing heard when monitored for several minutes at 0612 & 2115 UTC & at similar times on the 24th, 25th, 26th & 27th.
30-Sept-24, Monday:- 2019 UTC, UM05 is back, assuming the absence was the station taking a rest rather than propagation issues, sending "AVENTURE" 2022 UTC, "NOVEMBRE", 2115 UTC, "A".
01-Oct-24, Tuesday:- 0542 UTC, "TERRE".
04-Oct-24, Friday:- 0547 UTC, "PHRASE"; 2109 UTC, "TRAIN".
09-Oct-24, Wednesday:- 0551 UTC, "TEXTE"; 2012 UTC, "VOLCAN".
14-Oct-24, Monday:- 1857 UTC, "KOALA".
17-Oct-24, Thursday:- 1904 UTC, "COCCINELLE". I had to look his one up in the Collins Gem French Dictionary, translates as "ladybird".
20-Oct-24, Sunday:- 2006 UTC, "TRAFIC".
21-Oct-24, Monday:- 0618 UTC, "OCEAN".
Nothing heard when monitored later in the day at 2125 UTC for several minutes.
Nothing heard when monitored early and late on the following days of October, last monitored on the 29th.

Thanks for the report & Logs Peter. We hope you can catch up with UM05 on 7542.8kHz. (Unless it moves again!)

Morse - Number Stations

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

From the beginning of October 2022, all M01 transmissions sent have used a single carrier vs usual 'Two-Tone' transmission mode.

September 2024:

5020	2000z	10 Sep	'463' 628 30 = = 43251 64783 … 31428 56745 = =	Fair, fast. Excellent Morse. Error grp23 1248 15428	BR	TUE
	2000z	12 Sep	'463' 385 30 = = 32788 87991 … 88640 86700 = =	Weak/Fair. Excellent Morse. Difficult copy in places	BR	THU
	2000z	17 Sep	'463' 387 30 = = 85466 88324 … 01254 00234 = =	Good, fast. No errors. Many paired figures in groups	BR/HFD	TUE
	2000z	19 Sep	'463' 653 30 = = 63548 90254 … 65823 98712 = =	Fair, fast. Good Morse with one error. Grp14 sent once	BR	THU
	2000z	24 Sep	'463' 163 30 = = 65744 65771 … 78491 64381 = =	Fair with QSB. Fast delivery. Excellent with no errors	BR	TUE
	2000z	26 Sep	'463' 893 30 = = 73654 24314 … 48500 44567 = =	Fair with QSB, Fast delivery. Several errors noted	BR	THU
5475	1800z	03 Sep	'463' 857 30 = = 42740 61524 … 15274 72946 = =	Fair, fast. Excellent Morse. Only 29 grps sent	BR/HFD	TUE
	1800z	10 Sep	NRH		BR	TUE
	1800z	12 Sep	'463' 380 30 = = 34589 23100 … 09876 75821 = =	Good, fast. Excellent Morse. No errors	BR	THU
	1800z	17 Sep	'463' 127 30 = = 75845 66123 … 74533 82546 = =	Fair, fast. Error grp20. Many paired figures in groups	BR	TUE
	1800z	19 Sep	'463' 629 30 = = 86759 67448 … 87231 87123 = =	Fair, fast. Hesitant with several errors. Ending repeated	BR	THU
	1800z	24 Sep	'463' 389 30 = = 65712 65573 … 78500 83907 = =	Fair, fast. Excellent Morse. Perfect sending. No errors	BR	TUE
	1800z	26 Sep	'463' 344 30 = = 35455 29899 … 46544 30980 = =	Fair, fast. QSB & static present. Errors noted	BR	THU
6260	1500z	07 Sep	'463' 301 30 = = 37645 73645 … 28719 29017 = =	Corrected errors on starting group count & grp27	AB/HFD	SAT
	1500z	14 Sep	'463' 465 30 = = 59637 46534 … 47563 13245 = =	Weak, fast. Excellent Morse. Difficult copy in places	BR	SAT
	1500z	28 Sep	'463' 439 30 = = 18394 73517 … 64723 32467 = =	Fair, fast. Excellent Morse. Error grp26 811729 81729	BR	SAT
6510	0700z	01 Sep	'463 302 30 = = 51429….		HFD	SUN
	0700z	08 Sep	'463' 104 30 = = 45309 10928 … 01981 01875 = =	Late start. Corrected error on starting group count	AB	SUN

October 2024:

5020	2000z	01 Oct	… 76231 74901 = =	Fair with QSB. Fast delivery. Error Grp23 9001 90041	BR	TUE
	2000z	08 Oct	'463' 498 30 = = 61439 68145 … 74613 89572 = =	Weak. Fast delivery. Difficult, partial copy	BR	TUE
	2000z	10 Oct	'463' 231 30 = = 43902 91847 … 47839 01222 = =	Fair with QSB. Fast delivery. Difficult copy errors noted	BR	THU
	2000z	15 Oct	'463' 413 30 = = 61783 46247 … 47821 74892 = =	Fair, fast. Excellent Morse. Grp16 error corrected twice	BR	TUE
	2000z	17 Oct	'463' (R2m30) silence (5m21s) 8 3 88121 99233 74550 99450 77342 71234 = = 468 468 30 30 000		AB/BR	THU
	2000z	22 Oct	'463' 095 30 = = 86903 92817 … 95868 90987 = =	Fair with QSB. Fast delivery. Errors noted	BR	TUE
	2000z	24 Oct	'463' 101 30 = = 87784 75842 … 70903 66055 = =	Fair with QSB. Fast delivery. Corrected error grp30	BR	THU
	2000z	29 Oct	'463' 632 30 = = 01232 88456 … 73421 00231 = =	Weak/Fair, fast. Many paired figures used in grps	BR	TUE
	2000z	31 Oct	'463' 235 30 = = 42356 74589 … 95612 31425 = =	Fair with QSB. Hesitant start. Corrected error grp18	BR	THU
5475	1800z	01 Oct	'463' 101 30 = = 76889 89004 … 53480 57211 = =	Fair with QSB. Fast delivery. Errors noted	BR	TUE
	1800z	10 Oct	'463' 944 30 = = 90543 95809 … 04938 28194 = =	Fair, fast. Excellent Morse. No errors	BR	THU
	1800z	15 Oct	'463' 822 30 = = 61528 48096 … 69264 67139 = =	Fair, fast. Excellent Morse. Corrected error grp26	BR	TUE
	1800z	17 Oct	'463' 254 30 = = 18456 66324 … 95640 00560 = =	Fair, fast. Excellent Morse. Many paired figures in grps	AB/BR	THU
	1800z	22 Oct	'463' 123 30 = = 48372 95847 … 4736543 3654 = =	Fair with QSB. Fast delivery. Several errors inc. grp30	BR	TUE
	1800z	24 Oct	'463' 097 30 = = 65428 65478 … 85995 75438 = =	Fair, fast. Excellent Morse. Corrected error grp05	BR	THU
	1800z	31 Oct	'463' 178 30 = = 42674 24167 … 45167 24389 = =	Fair with QSB. Fast delivery. Excellent Morse Perfect!	BR	THU
6260	1500z	26 Oct	'463' 178 30 = = 93462 81232 … 72314 48564 = =	Weak, fast. Errors in grps16-17 & Grp25	BR	SAT
6510	0700z	13 Oct	NRH			

BR SUN

M01/2 6260kHz 1500z 07 September 2024

463 (R4m) 301 301 2EEEE 301 301 30 30 = =

37645 73645 54152 40180 30918 60958 10381 90211 30948 46389
64739 17625 69040 40387 10361 29836 26354 17365 60541 29036
47091 30918 16524 26715 30918 18746 1/8EEE E 18746 16748
28719 29017 = = 301 301 30 30 000

Courtesy AB

M01/2 6510kHz 0703z 08 September 2024

104 104 104 104 1 EEE 463 (R) 104 104 30 30 = =

45309 10928 22091 39847 50817 30917 20918 23141 22109 48902
56743 01126 30917 80870 46537 31817 30917 39076 76145 09181
44820 10934 44091 39817 30918 27615 38918 19847 01981 01875
= = 104 104 30 30 000

Courtesy AB

M01/2 5475kHz 1800z 17 September 2024

463 (R4m) 127 127 30 30 = =

75845 66123 01232 66453 77453 88321 99564 73422 86754 83422
94533 82344 82335 01344 62664 77231 88453 87453 99231 00453
85463 77453 88564 88312 77342 85611 88312 99360 74533 82546
= = 127 127 30 30 000

Courtesy BR

M01/2 5020kHz 2000z 17 September 2024

463 (R4m) 387 387 30 30 = =

85466 88324 77342 77453 99123 00213 77453 99453 74552 99451
04352 77453 81240 00231 00345 80459 83324 88451 99234 77294
91233 51256 84351 88254 99234 99123 00342 22040 01254 00234
= = 387 387 30 30 000

Courtesy BR

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

No Reports

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

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

Asiatic M12 Logs

17437/15937/ - - -	0300/20/40z	03 Sep	495 000	(Via SDR Japan)	HFD	TUE
14942/13942/12142	0010/30/50z	06 Sep	991 1	(Via SDR Japan)	HFD	FRI
17437/15937/14537	0300/20/40z	01 Oct	495 1	(Via SDR Japan)	HFD	TUE
17429/16219/15929	0010/30/50z	04 Oct	429 1	(Via SDR Japan)	HFD	FRI

European M12 Logs

September 2024: **New scheds in bold type**

7961/6861/5861	2100/20/40z	06 Sep	988 1 (3426 105) 69700 47235….		BR	FRI
	2100/20/40z	07 Sep	988 1 (3426 105) 69700 47235….		BR/HFD	SAT
	2100/20/40z	13 Sep	988 1 (3426 105) 69700 47235….		BR	FRI
	2100/20/40z	14 Sep	988 1 (3426 105) 69700 47235….		BR	SAT
	2100/20/40z	20 Sep	988 1 (2978 137) 51473 20657….		BR	FRI
	2100/20/40z	21 Sep	988 1 (2978 137) 51473 20657….		BR	SAT
	2100/20/40z	27 Sep	988 1 (2978 137) 51473 20657….		BR	FRI
	2100/20/40z	28 Sep	988 1 (2978 137) 51473 20657….		BR	SAT
11109/10309/9209	2000/20/40z	02 Sep	385 000		HFD	MON
	2000/20/40z	05 Sep	385 000		BR	THU
	2000/20/40z	09 Sep	385 1 (8146 47) 47253 07078 … 02461 16560 000 000	[Note 1]	Gert	MON
	2000/20/40z	12 Sep	385 1 (8146 47) 47253 07078….		BR	THU
	2000/20/40z	19 Sep	385 000		BR	THU
	2000/20/40z	23 Sep	385 1 (259 61) 58879 57514….		BR	MON
	2000/20/40z	26 Sep	385 1 (259 61) 58879 57514….86796 69464 000 000	Very Strong	Gert	THU
	2000/20/40z	30 Sep	385 000		BR	MON
11435/10598/9327	1800/20/40z	05 Sep	938 1 (7537 82) 93454 50163….		BR	THU
	1800/20/40z	12 Sep	938 1 (2002 78) 76873 04159….		BR/HFD	THU
	1800/20/40z	26 Sep	938 1 (2611 78) 73828 16363….		BR	THU
11519/12194/13407	1100/20/40z	03 Sep	289 1 (6328 63) 98826 02725….		BR/HFD	TUE
	1100/20/40z	10 Sep	289 1 (7450 55) 80731 69125….		BR	TUE
	1100/20/40z	17 Sep	289 1 (3228 56) 26133 86373….		BR	TUE
	1100/20/40z	24 Sep	289 1 (6738 54) 99761 64700….		BR	TUE
13367/12167/10567	1900/20/40z	04 Sep	315 000		HFD	WED
	1900/20/40z	06 Sep	315 000		BR	FRI
	1900/20/40z	13 Sep	315 1 (2221 95) 06600 79305….		BR	FRI
	1900/20/40z	18 Sep	315 1 (2221 95) 06600 79305….		BR	WED
	1900/20/40z	20 Sep	315 1 (2221 95) 06600 79305….		BR	FRI
	1900/20/40z	25 Sep	315 000		BR	WED
	1900/20/40z	27 Sep	315 000		BR	FRI

13368/12168/11168	**2310/30/50z**	**04 Sep**	**311 1 (2371 189)**	**81992 69467….**	BR	WED
	2310/30/50z	**08 Sep**	**311 1**		HFD	SUN
	2310/30/50z	11 Sep	311 1 (184 219)	39502 09065….	BR	WED
	2310/30/50z	15 Sep	311 1 (184 219)	39502 09065….	BR	SUN

[Note 1] The 20.00z transmission had an error and stopped briefly after group 43. Than 4 times preamble 385 385 385 1 and continued the message from group 36. 20.20z and 20.40z transmission normal. *(Gert)*

October 2024:

5794/6794/ - - -	2100/20/40z	04 Oct	770 000		HFD	FRI
	2100/20/40z	05 Oct	770 000		BR	SAT
	2100/20/40z	11 Oct	770 000		BR	FRI
	2100/20/40z	12 Oct	770 000		BR	SAT
	2100/20/40z	18 Oct	770 000		BR	FRI
	2100/20/40z	19 Oct	770 000		BR	SAT
10318/9218/8118	2000/20/40z	03 Oct	178 000		BR	THU
	2000/20/40z	07 Oct	178 1 (178 4447)	10292 00975….	BR/HFD	MON
	2000/20/40z	10 Oct	178 1 (4447 97)	10292 00975….	BR	THU
	2000/20/40z	14 Oct	178 000		BR	MON
	2000/20/40z	17 Oct	178 000		BR	THU
	2000/20/40z	21 Oct	178 1 (2087 33)	33792 23253 … 08406 43593 000 000	Gert	MON
11135/10235/9235	1900/20/40z	02 Oct	122 1 (174 109)	50571 85080….	BR/HFD	WED
	1900/20/40z	04 Oct	122 1 (174 109)	50571 85080….	BR	FRI
	1900/20/40z	09 Oct	122 1 (174 109)	50571 85080….	BR	WED
	1900/20/40z	11 Oct	122 1 (174 109)	50571 85080….	BR	FRI
	1900/20/40z	16 Oct	122 000		BR	WED
	1900/20/40z	18 Oct	122 000		BR	FRI
	1900/20/40z	23 Oct	122 1 (2672 85)	07877 35482….	BR	WED
	1900/20/40z	25 Oct	122 1 (2672 85)	07877 35482 … 11018 96719 000 000	Gert	FRI
11435/10598/9327	1800/20/40z	03 Oct	938 1 (2674 76)	37908 96039….	BR	THU
	1800/20/40z	10 Oct	938 1 (4370 80)?	67208 74387….?? Poor copy – Detail uncertain	BR	THU
	1800/20/40z	17 Oct	938 1 (7650 84)	79412 21814….	BR	THU
11519/12194/13407	1100/20/40z	01 Oct	289 1 (9939 64)	44669 72341….	BR	TUE
	1100/20/40z	15 Oct	289 1 (3248 63)	80706 07755….	BR	TUE
	1100/20/40z	22 Oct	289 1 (5268 64)	91526 00375….	BR	TUE
12217/11517/10417	2310/30/50z	02 Oct	254 1		HFD	WED
	2310/30/50z	06 Oct	254 1 (670 111)	. . . . . (Distorted reception)	BR	SUN
	2310/30/50z	16 Oct	254 1 (. 0 . . .9)	. . . . . (Distorted reception)	BR	WED
	2310/30/50z	23 Oct	354 1 (4693 64)	46070 57063….	BR	WED

M12 11109/10309/9209kHz 2000/2020/2040z 09 Sep 2024

385 385 385 1 (R2m) 8146 47 8146 47

47253 07077 93717 82301 87630 25050 92464 55621 70564 37008
96571 22634 49363 47686 36379 45569 52419 91827 29730 24304
70120 78476 16846 54315 03140 59773 24956 41959 35698 36565
06908 98127 69749 36741 25123 50871 72115 35181 01820 20368
93305 38571 12064
[Pause]
385 385 385 1 385 385 385 1 385 385 385 1 385 385 38 5 1
50871 72115 35181 01824 20368 93305 38571 12064 81007 99199
02461 16560 000 000

Courtesy Gert

Transcription shown for 2000z transmission – See [Note 1] above.

M12 1113510235/9235kHz 1900/1920/1940z 25 Oct 2024

122 122 122 1 (R2m) 2672 85 2672 85

07877 35482 67340 27897 78022 08538 52373 10362 96749 29556
05425 61627 43536 39401 20426 31116 05652 35267 20982 68402
37243 81606 17332 81271 91823 63808 89947 77055 34629 03265
82564 86155 37306 99384 82393 61044 50244 65975 63313 94311
69727 25345 00799 26146 82258 23586 72750 34732 55968 08159
32155 78806 56509 86556 09142 35737 29428 94052 04332 35938
79716 49047 16158 29932 59928 56865 22458 00373 31480 81801
53465 64449 02214 45827 78704 35632 15866 27964 45392 30804
98297 54628 43272 11018 96719 000 000

Courtesy Gert

M14 IA MCW / ICW Short 0

September 2024:

12211	**0502z**	02 Sep	952 (935 60) = 14608 42927….03642 95692 = 935 60 00000	(Via SDR Japan)	AB/HFD	MON
	0500z	03 Sep	952 (180 54) = 09689 13592….39431 35210 = 180 54 00000	(Via SDR Japan)	AB/HFD	TUE
	0500z	04 Sep	952 (674 25) = 88587 42003….45793 84876 = 674 25		AB	WED
			952 (810 32) = 31472 99538….13037 34996 = 810 32 00000			
	0500z	05 Sep	952 (674 25) = 88587 42003….45793 84876 = 674 25 00000		AB	THU
			952 (810 32) = 31472 99538….13037 34996 = 810 32 00000			
	0500z	06 Sep	952 00000		AB	FRI
10243	0520z	02 Sep	No transmission		AB	MON
	0520z	03 Sep	952 (180 54) = 09689 13592….39431 35210 = 180 54 00000	(Via SDR Japan)	AB/HFD	TUE
	0524z	04 Sep	952 (674 25) = 88587 42003….45793 84876 = 674 25		AB	WED
			952 (810 32) = 31472 99538….13037 34996 = 810 32 00000			
	0520z	05 Sep	952 (674 25) = 88587 42003….45793 84876 = 674 25 00000		AB	THU
			952 (810 32) = 31472 99538….13037 34996 = 810 32 00000			
	0500z	06 Sep	952 00000		AB	FRI

October 2024:

17458	0930z	10 Oct	617 000	HFD	THU
10755	1555z		17 Oct 975 (284 60) = 11249 34395….87376 47329 = 284 60 00000 This transmission, caught by Ary, (AB), exhibiting problems completing the transmission! (See transcript below)	AB	THU

M14 12221kHz 0502z 02 September 2024

952 (R4m) 935 935 60 60 = =
14608 42927 35324 25344 10867 16808 69102 23450 84088 79465
80679 50394 52285 28760 73279 66998 18089 45393 63194 93569
52234 04120 04534 77390 49809 48708 32825 54461 57686 22874
88388 10163 96588 74345 05453 68529 26218 74269 77910 64829
26894 19134 37688 81127 96124 07397 06641 49528 83564 08011
07924 52778 12787 63028 47775 76921 63303 91479 03642 95692
= =

935 935 60 60 00000

Courtesy AB

M14 12221kHz 0500z 03 September 2024

952 (R4m) 180 180 54 54 = =

09689 13592 14302 45349 70595 34611 07211 75796 86637 05237
69348 16201 60568 51123 63434 27393 07745 80084 58696 81268
91424 02331 50786 54114 58160 51187 84140 32148 34230 08994
00214 46446 69036 67862 60031 79458 36424 79990 14499 10289
29833 77209 20893 90933 12250 64460 28997 70665 06870 16885
85287 10750 39431 35210 = =

180 180 54 54 00000

Courtesy AB

M14 12221kHz 0500z 04 September 2024

952 (R4m) 674 674 25 25 = =

88587 42003 30173 39881 74720 15520 52938 34211 71852 43331
76490 43092 15131 70393 46675 76104 29186 78512 40858 36740
89859 13779 98846 45793 84876 = = 674 674 25 25

952 810 810 32 32 = =

31472 99538 76981 87343 68018 06257 49532 40131 58181 68587
20620 02024 46319 34571 36676 11317 29541 92946 42379 71349
49321 49996 08644 09241 28927 35399 55645 59720 36319 35528
13037 34996 = =

810 810 32 32 00000

Courtesy AB

M14 10755kHz 1555z 17 October 2024

975 (R4m) 284 284 60 60 = =

11249 34395 27229 24000 31359 13019 07504 45049 54414 14518
31936 81100 50132 00336 47075 36561 73789 88244 23690 49811
15050 90203 14817 27228 86722 49930 12350 69854 76908 97355
88095 22444 12959 62173 30244 99548 10683 13651 11181 68356
07260 18901 47595 92941 01266 36794 38796 69639 48273 89707
94203 08215 85457 **80289** *[1m15s silence]*

975 (R)
94203 08215 85457 **80289 85925** 38519 83641 45435 87376 47329
[10s silence]

975 (R) *[6s silence]*
975 (R**)** **85925** 38519 83641 45 *[1m11s silence]*

975 (R)
08215 85457 **80289 85925** 38519 83641 45435 87376 47329
= = 284 284 60 60 00000

Courtesy AB

M23 O ICW

M23 - Another New Format

Ary, (AB), reported a series of unidentified transmissions heard on 10916kHz sending a series of repeated groups before ceasing suddenly, followed later in the day by a further transmission consisting of an eight figure number string, also repeated. This later changed to a single string sent on a different frequency & time slot.

The station appeared around 23 September using several formats, including use of the phrase 'Salut le Gars'*, that Ary recalled from previous transmissions logged in November 2020, using the same phrase, at that time on 8134kHz.

Our first thoughts were possibly M01a – A Russian designation covering a series of odd formats, however, the use of a long zero** rules this out. Ary suggests M23 as a likely source & this would certainly seem to be correct. Further examination of the transmissions by Ary show the transmissions to be of French origin & the station also ends transmissions with short tones & the hourly markers between transmissions, both notable feature of M23 transmissions.

The purpose of the transmissions, as with those from previous M23 transmissions would appear to be for a 'fox hunt', direction finding exercises or for training operators searching the bands for the signals, which most likely emanate from the French Military.

M23 has appeared in a number of different formats over the years & now bears no resemblance to the message format that formed the basis of the original designation. The more recent formats were comprised of groups of three or so numbers or letters repeated.

* Salut le Gars translates as 'Hey Guys'
** A long zero is sent using five zeros whereas a short zero, much favoured by the Russian stations, uses a single zero.

Single String Changes to Two New Frequency & Time Slots
On 14 October the single string transmissions were heard on 6937kHz & 14930kHz with changed time slots. The hourly tones, a characteristic of M23 transmissions, were also heard on these frequencies. The 6937kHz was found by an associate DXer. relayed via AB.

Another Frequency Added
On 17 October, another frequency was discovered in use on 4822kHz by the Priyom monitoring group. This appeared to have issues & transmissions were incomplete & irregular, missing on the 19 October. M23 have been known to use this frequency in previous transmissions.

All four frequencies were in use daily on the same time slots. See logs below for more detail:-

Logs (Representative of the transmissions which were sent daily)

0916	0900z	03 Oct	50505 55550 05550 05500 55005 (R17m 14s) Ends suddenly mid sequence 50505 55550 0555	AB	THU
10916	1500z	03 Oct	15081769 (R 15m44s)		
10916	0900z	04 Oct	50505 55550 05550 05500 55005 (R17m 14s	AB	FRI
10916	1500z	04 Oct	15081769 (R 15m44s)	AB	FRI
10916	0900z	05 Oct	50505 55550 05550 05500 55005 (R17m)	AB/BR/Jochen	SAT
10916		07 Oct	Hourly tones sent at hh59 – No regular transmissions sent	AB	TUE
10916	0859z	08 Oct	50505 55550 05550 05500 55005 (R 18m16s)	AB	TUE
10916	0900z	09 Oct	50505 55550 05550 05500 55005 (R 18m16s)	AB	WED
10916	0900z	10 Oct	50505 55550 05550 05500 55005 (R 18m26s) Hourly tones still present	AB	THU
10916		11 Oct	NRH – Poor conditions might be the reason	AB	FRI
10916	0900z	12 Oct	50505 55550 05550 05500 55005 (R18m)	AB	SAT
6937	0359z	14 Oct	15081769 (R15m48s)	AB	MON
10916	0859z	14 Oct	50505 55550 05550 05500 550005 (R19m)	AB/BR	MON
14930	1159z	14 Oct	15081769 (R 15m57s)	AB	MON
6937	0359z	15 Oct	15081769 (R15m48s)	AB	TUE
10916	0900z	15 Oct	50505 55550 05550 05500 55005 (R 18m21s)		
14930	1159z	15Oct	15081769 (R 15m51s)		
6937	0359z	16 Oct	15081769 (R15m44s)	AB	WED
10916	0900z	16 Oct	50505 55550 05550 05500 55005 (R 18m21s)		
14930	1159z	16 Oct	15081769 (R 15m51s)		
6937	0359z	17 Oct	15081769 (R15m49s)	AB	THU
10916	0859z	17 Oct	50505 55550 05550 05500 55005 (R 18m20s)		
14930	1159z	17 Oct	15081769 (R 15m51s)		
4822	2303z	17 Oct	Probably had issues as it sent only 505 and part of a 4th digit then off. (Via Priyom)		
6937	0400z (IP)	18 Oct	15081769 (R15m??s)	AB	FR1
10916	0859z	18 Oct	50505 55550 05550 05500 55005 (R18m20s)		
14930	1159z	18 Oct	15081769 (R15m51s)		
4822	2259z	18 Oct	50505 55550 05550 05500 55005 (R17m) (Via Priyom)		
6937	0359z	19 Oct	15081769 (R15m47s)	AB	SAT
4822	2259z	19 Oct	Not active on 19-10. This is an irregular one		
6937	0359z	20 Oct	15081769 (R15m47s)	AB	SUN
6937	0359z	22 Oct	15081769 (R15m49s)	AB	TUE
10916	0859z	22 Oct	50505 55550 05550 05500 55005 (R18m22s)	AB/BR	TUE
14930	1159z	22 Oct	15081769 (R15m48s)	AB	TUE
4822	2259z	22 Oct	50505 55550 05550 05500 55005 (R17m)		
14930	1159z	30 Oct	15081769 (R15m)	BR	WED
4822	**2303z**	30 Oct	05505 05 555 <*Pause*> W Then heard from 2307z sending usual output – very weak, only just audible	BR	WED
6937	0359z	31 Oct	15081769 (R15m44s)	AB	THU

Thanks for your logs & comments on this, Ary. Characteristics & signal strength would indicate either M23 or same organisation, I think.
Many thanks to Ary, (AB), for his work on this & also Ary's associate, Priyom, BR & Jochen for additional logs & reports.

Morse Stations - Not Number Related

M51 XlX

3881//6825 100 grp 5-ltr messages with headers

No reports – M51b format in use

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

3881//6825

1130 - 1214z	30 Sep	Lundi-Leçon	01-2/1 Codé	01-2/2 Clair,	01-2/3 Codé,	01-2/4 Clair (420 grps/hr)	BR	MON
1130 - 1201z	01 Oct	Mardi-Leçon	02-2/1 Codé	02-2/2 Clair,	02-2/3 Codé,	02-2/4 Clair (600 grps/hr)	BR	TUE
1130 - 1207z	02 Oct	Mercredi- Leçon	03-2/1 Codé,	03-2/2 Clair,	03-2/3 Codé,	03-2/4 Clair (720 grps/hr)	BR	WED
1130 - 1156z	03 Oct	Jeudi- Leçon	04-2/1 Codé,	04-2/2 Clair,	04-2/3 Codé,	04-2/4 Clair (840 grps/hr)	BR	THU

M51b Non-stop 5-character groups composed of M51a messages on 3881//6825kHz

3881//6825					
	2110z	27 Oct	Non-stop 5-character groups composed of M51a messages	BR	SUN

M89 O

4860// 6840	1945z	30 Oct. 24	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) QSA ? K	BR	WED

M95 O XSV, XSV70, XSV85

M95 Morse Logs

6936	Call Sign	SAQC	(Active daily - only first marker log has been included)		
	2102z	27 Oct	V YHXD (x3) DE SAQC (x2) (IP - Cont'd)	BR	SUN

Spl Msg: VVV JPL VY Best RGDS DE E2K K

Marker Beacons (MX MXI)

5153.7	1921z	22 Sep	MXI CW Beacon "D" Sevastopol		BR		SUN
	2053z	27 Oct	MXI CW Beacon "D" Sevastopol		BR		SUN
5153.9	1823z	22 Sep	MXI CW Beacon "S" Severomorsk	Weak	BR		SUN
5156.7	1821z	22 Sep	MX CW Beacon "L" St Petersburg	Fair	BR		SUN
7508.7	1820z	22 Sep	MXI CW Beacon "D" Sevastopol		BR		SUN
	2051z	27 Oct	MXI CW Beacon "D" Sevastopol		BR		SUN
7508.9	1819z	22 Sep	MXI CW Beacon "S" Severomorsk		BR		SUN
7509	1819z	22 Sep	MXI CW Beacon "C" Moscow		BR		SUN
	2052z	27 Oct	MXI CW Beacon "C" Moscow		BR		SUN
	0943z	28 Oct	MXI CW Beacon "C" Moscow	Weak	BR		MON
8494.8	0823z	18 Sep	MXI CW Beacon "P" Kaliningrad	Good under fair STANAG	BR		WED
	1818z	22 Sep	MXI CW Beacon "P" Kaliningrad	Fair under Strong STANAG	BR		SUN
8497.8	0822z	18 Sep	MX CW Beacon "L" St Petersburg		BR		WED
	1816z	22 Sep	MX CW Beacon "L" St Petersburg		BR		SUN
	2051z	27 Oct	MX CW Beacon "L" St Petersburg		BR		SUN
	0944z	28 Oct	MX CW Beacon "L" St Petersburg		BR		MON
10871.7	0821z	18 Sep	MXI CW Beacon "D" Sevastopol		BR		WED
	1815z	22 Sep	MXI CW Beacon "D" Sevastopol		BR		SUN
	2048z	27 Oct	MXI CW Beacon "D" Sevastopol		BR		SUN
10871.8	0945z	28 Oct	MXI CW Beacon "P" Kaliningrad	Strong	BR		MON
10871.9	0822z	18 Sep	MXI CW Beacon "S" Severomorsk	Weak	BR		WED
	1816z	22 Sep	MXI CW Beacon "S" Severomorsk		BR		SUN
	2050z	27 Oct	MXI CW Beacon "S" Severomorsk		BR		SUN
	0946z	28 Oct	MXI CW Beacon "S" Severomorsk	Weak	BR		MON
10872	2048z	27 Oct	MXI CW Beacon "C" Moscow		BR		SUN
	0946z	28 Oct	MXI CW Beacon "C" Moscow		BR		MON
10872.1	2049z	27 Oct	MXI CW Beacon "A" Astrakhan		BR		SUN
13527.7	0820z	18 Sep	MXI CW Beacon "D" Sevastopol		BR		WED
	1812z	22 Sep	MXI CW Beacon "D" Sevastopol		BR		SUN
	0947z	28 Oct	MXI CW Beacon "D" Sevastopol		BR		MON
13527.9	0820z	18 Sep	MXI CW Beacon "S" Severomorsk		BR		WED
	1813z	22 Sep	MXI CW Beacon "S" Severomorsk		BR		SUN
	2046z	27 Oct	MXI CW Beacon "S" Severomorsk		BR		SUN
	0948z	28 Oct	MXI CW Beacon "S" Severomorsk		BR		MON
13528	0819z	18 Sep	MXI CW Beacon "C" Moscow		BR		WED
	1813z	22 Sep	MXI CW Beacon "C" Moscow		BR		SUN
13528.1	2047z	27 Oct	MXI CW Beacon "A" Astrakhan	Weak	BR		SUN
16331.7	1905z	04 Sep	MXI CW Beacon "D" Sevastopol		HFD		WED
	0817z	18 Sep	MXI CW Beacon "D" Sevastopol		BR		WED
	1809z	22 Sep	MXI CW Beacon "D" Sevastopol	Strong	BR		SUN
	0858z	28 Oct	MXI CW Beacon "D" Sevastopol		BR		MON
16331.8	0957z	28 Oct	MXI CW Beacon "P" Kaliningrad		BR		MON
16331.9	0818z	18 Sep	MXI CW Beacon "S" Severomorsk	Weak	BR		WED
	1811z	22 Sep	MXI CW Beacon "S" Severomorsk	Weak	BR		SUN
	0958z	28 Oct	MXI CW Beacon "S" Severomorsk		BR		MON
16332.0	1906z	04 Sep	MXI CW Beacon "C" Moscow		HFD		WED
16332.1	1907z	04 Sep	MXI CW Beacon "A" Astrakhan		HFD		WED
	0818z	18 Sep	MXI CW Beacon "A" Astrakhan	Weak	BR		WED
20047.7	0814z	18 Sep	MXI CW Beacon "D" Sevastopol		BR		WED
	1004z	28 Oct	MXI CW Beacon "D" Sevastopol		BR		MON

20047.9	1005z	28 Oct	MXI CW Beacon "S" Severomorsk			BR	MON
20048.1	0816z	18 Sep	MX CW Beacon "A" Astrakhan		V.Weak	BR	WED
	1015z	28 Oct	MX CW Beacon "A" Astrakhan			BR	MON

Oddities

'The Alarm'

4770	2055z	27 Oct	Marker Signal (The Alarm)	USB	Good	BR	SUN

S28 'The Buzzer'

1831z	22 Sep	S28	Digital signal present on freq		USB	BR	SUN
2056z	27 Oct	S28	'The Buzzer' Marker	Weak!!	USB	BR	SUN

S30 'The Pip'

3756	2057z	27 Oct	S30 'Pip' marker (Night freq)		USB	BR	SUN

New Additional 'Pip' Markers

6218	1830z	22 Sep	'Pip' Marker		USB	BR	SUN
	2059z	27 Oct	Strong continuous digital tones		USB	BR	SUN
6402	1830z	22 Sep	'Pip' Marker	Not synched with 6218kHz	USB	BR	SUN
6930	1829z	22 Sep	Buzzer / Goose? Marker		USB	BR	SUN

Contributors: AB, BR, Gert, HFD, Jochen, PoSW *Thank you all for your logs.*

Voice Number Stations

E06 Sept/Oct log:

From RNGB:

E06 Sept/Oct log:

First /Third Thursday (repeats Friday) 0500z 14370kHz 0600z 16265kHz

05/09 '354' 297 60 95711 59134 26025 85694 78583 98177 30894 87065 50235 99440 46265 79418 40547 49115 62055 79739 70411 46651 25495 49071 44423 86981 45988 83128 59692 23307 02789 19474 85451 83884 22710 94783 93146 41263 20034 13156 41716 57392 15816 11385 47726 53053 78771 32149 95043 75033 54935 41044 63786 59508 78274 48408 83149 15035 79446 21859 37880 73625 34889 00500 297 60 00000

No reports for October [but read on]:

From PoSW

First + Third Thursdays in the Month 0500 + 0600 UTC Schedule, - repeated on the following day:-

5-Sept-24:- 0500 UTC, 14370 kHz, calling "354", DK/GC "297 297 60 60", weak at first, became stronger.
0600 UTC, 16265 kHz, weak but reasonably clear signal.

6-Sept-24, Friday:- 0500 UTC, 14370 kHz, first sending of the "next day repeat", weak signal.
0600 UTC, 16265 kHz, also weak.

19-Sept-24:- Nothing readable at first from the first sending at 0500 UTC on 14370 kHz.
0508 UTC 14370 kHz, became readable about eight minutes in, gradually becoming stronger. Ended after 0514z with, "281 281 60 60 00000".
0600 UTC, 16265 kHz, much stronger.

20-Sept-24, Friday:- 0600 UTC, 14370 kHz, very weak signal down in the noise.
0600 UTC, 16265 kHz, stronger.

Lost track of this one in October, prediction list and last year's logs say a shift of one hour, 0600 UTC, 18425 kHz and 0700 UTC, 20230 kHz. Forgot to listen on Thursday the 3rd but nothing heard on Friday the 4th or on Thursday the 17th or Friday the 18th. It is not unusual for signals to be weak but even if very weak and unreadable it is usually possible to detect the presence of the carrier with the receiver in USB mode.

E07

Peter's logs echo others findings as he writes:

Only two schedules left from this English language SSB number station, each appearing two days a week in the UK afternoon.

Tuesday + Friday Schedule, 1500 UTC Start:-
3-Sept-24, Tuesday:- 1500 UTC, 17452 kHz, "428 428 428 1", message, DK/GC "147 99" x 2, signal strength up and down, ended at 1510:40s UTC.
1520 UTC, 16272 kHz, also varying in signal strength.
Nothing heard of the third sending at 1540z - because I realised some time afterwards I had tuned to 14872 when in fact the there is a 3kHz offset with this one, i.e. 14875.

6-Sept-24, Friday:- 1500 UTC, 17452 kHz, very weak signal, unreadable.
1520 UTC, 16272 kHz, much stronger, "428" and "147 99" again.
1540 UTC, 14875 kHz, weak at first, became stronger around 1545z.

10-Sept-24, Tuesday:- 1500 UTC, 17452 kHz, "428 428 428 000".
1520 UTC, 16272 kHz, stronger.

13-Sept-24, Friday:- 1500 UTC, 17452 kHz, "428 428 428 000", strong signal.
1520 UTC, 16272 kHz, also strong.

20-Sept-24, Friday:- 1500 UTC, 17452 kHz, "428 428 428 1", message, DK/GC "249 169" x 2, good signal, ended at 1516:25s UTC.
1520 UTC, 16272 kHz, strong.
1540 UTC, 14875 kHz, weak signal.

24-Sept-24, Tuesday:- 1500 UTC, 17452 kHz, "428 428 428 000", good signal.
1520 UTC, 16272 kHz, weaker.

27-Sept-24, Friday:- 1500 UTC, 17452 kHz, "428...000" again, vanished off air after about one minute, came back and ended around 1503:30s UTC.
1520 UTC, 16272, good signal.

1-Oct-24, Tuesday:- 1500 UTC, 17461 kHz, "413 413 413 1", message, DK/GC "8727 70" x 2, good signal.
1520 UTC, 16161 kHz, weaker.
1540 UTC, 14361 kHz, weakest of the three transmissions.

4-Oct-24, Friday:- 1500 UTC, 17461 kHz, "413" and "8727 70" again, good signal.
1520 UTC, 16161 kHz, slightly weaker.
1540 UTC, 14361 kHz, weakest.

8-Oct-24, Tuesday:- 1500 UTC, 17461 kHz, very weak signal, unreadable. Nothing readable from the second sending at 1520 UTC on 16161.

11-Oct-24, Friday:- Again, nothing readable from any transmission.

15-Oct-24, Tuesday:- 1500 UTC, 17461 kHz:- "413 413 413 1", message, DK/GC "9195 158" x 2, strong signal today. Ended at 1515:35s UTC.
1520 UTC, 16161 kHz, slightly weaker.
1540 UTC, 14361 kHz, slightly weaker again.
Everything much stronger than last week.

22-Oct-24, Tuesday:- 1500 UTC, 17461 kHz, "413 413 413 000".
1520 UTC, 16161 kHz, also strong.

25-Oct-24, Friday:- 1500 UTC, 17461 kHz and 1520 UTC, 16161 kHz, both good signals, "413 413 413 000".

29-Oct-24, Tuesday:- 1500 UTC, 17461 kHz, "413 413 413 1", message, DK/GC "3654 104". Strong signal, ended 1511:10s UTC approx.
1520 UTC, 16161 kHz, slightly weaker.
1540 UTC, 14361 kHz, weakest of the three.

Thursday + Saturday Schedule, 1410 UTC Start:-
5-Sept-24, Thursday:- 1410 UTC, 16228 kHz, "594 594 594 000".
1430 UTC, 15928 kHz, weak.

7-Sept-24, Saturday:- 1410 UTC, 16228 kHz, "594 594 594 000", weak.
1430 UTC, 15928 kHz, very weak.

12-Sept-24, Thursday:- 1410 UTC, 16228 kHz, "594 594 594 1", message, DK/GC "6358 93" x 2. Weak, reasonably clear signal.
1430 UTC, 15928 kHz, slightly stronger.
1450 UTC, 14928 kHz, very weak at first, became stronger.

14-Sept-24, Saturday:- 1410 UTC, 16228 kHz, "594" and "6358 93" again, weak signal.
1430 UTC, 15928 kHz, weak at first, became stronger.
1450 UTC, 14928 kHz, very weak.

19-Sept-24, Thursday:- 1410 UTC, 16228 kHz, "594 594 594 000", good signal.
1430 UTC, 15928 kHz, weaker.

21-Sept-24, Saturday:- 1410 UTC, 16228 kHz and 1430 UTC, 15928 kHz, "594 594 594 000".

28-Sept-24, Saturday:- 1410 UTC, 16228 kHz, "594 594 594 1", message, DK/GC "557 145" x 2, good signal with some fading. A higher group count than most, ended around 1424:30s UTC.

1430 UTC, 15928 kHz, interference from a strong buzz extending from about 15923 to 15938 kHz.
1450 UTC, 14928 kHz, weak signal.

3-Oct-24, Thursday:- 1410 UTC, 15849 kHz, “746 746 746 000”, good signal.
1430 UTC, 14849 kHz, also a good signal.

5-Oct-24, Saturday:- 1410 UTC, 15849 kHz, “746 746 746 000”, good signal.
1430 UTC, 14849 kHz, weaker.

10-Oct-24, Thursday:- 1410 UTC, 15849 kHz, “746 746 746 1”, message, DK/GC “4198 129” x 2.
Transmission failed at 1422:30s approx, came back with “746...1” routine then into 5Fs just before 1424z. Ended around 1425:35s UTC.
1430 UTC, 14849 kHz, weak signal.
1450 UTC, 13449 kHz, weak, clear.

12-Oct-24, Saturday:- 1410 UTC, 15849 kHz, “746” and “4198 129” again, signal strength up and down.
1430 UTC, 14849 kHz, weak.
1450 UTC, 13449 kHz, strongest signal of the three transmissions.

17-Oct-24, Thursday:- 1410 UTC, 15849 kHz, “746 746 746 000”, good signal.
1430 UTC, 14849 kHz, weaker.

26-Oct-24, Saturday:- 1410 UTC, 15849 kHz, “746 746 746 1”, message DK/GC “7385 88” x 2, good signal, ended 1419:50s UTC.
1430 UTC, 14849 kHz, weaker.
1450 UTC, 13449 kHz, weakest of the three this afternoon.

In comparison logs from M8, HJH and PLdn

September 2024

Tuesday/Friday

September 2024

1500z	**17452kHz**	**1520z**	**16272kHz**	**1540z**	**18542kHz**
03/09	428 1 147 99 51687 to 19214 000 000				Weak, 1500z QSB2
06/09	428 1 147 99 51687 ... 19214 000 000				1500z Weak, 1520z Fair, 1540z Strong
13/09	428 000				Strong
17/09	428 1 249 169 11992 ... 05211 000 000				Weak
20/09	428 1 249 169 11992 ... 05211 000 000				Strong, 1540z Weak
24/09	428 000				Fair

October 2024

1500z	**17461kHz**	**1520z**	**16161kHz**	**1540z**	**14361kHz**
01/10	413 1 8727 70 86854 … 54991 000 000				1500z Weak, rest Fair

413 1 8727 70
86854 19368 91126 45280 98183 21958 63259 08472 92418 62150
60046 22616 53732 63109 78339 74489 81110 30177 28985 99833
80648 83372 66233 69303 97260 28199 67862 88020 28775 43515
17139 61582 52234 23395 93495 98531 16157 80854 02423 45056
13014 43934 60103 05809 67334 92510 29281 97233 30608 14147
44390 74757 33535 66033 42329 01349 46435 29781 94353 11235
50470 54368 73693 18911 25024 23960 59525 56420 31659 54991
000 000 *Courtesy dMHz*

04/10	413 1 8727 70 86854 … 54991 000 000	1540z Fair, rest Strong
08/10	413 000	Weak [via Finnish SDR]
15/10	413 1 9195 158 19752 ...	1540z Fair, rest Weak [*Automatic recording. Time ran out for each session*]
18/10	413 1 9195 158 19752 ... 44304 000 000	Fair
24/10	413 000	Fair
29/10	413 1 3654 104 55344 ... 50516 000 000	1520z Strong, rest Fair

Thursday/Saturday

September 2024

1410z	16228kHz	1430z	15928kHz	1450z	14928kHz			
05/09	594 000				Weak			
12/09	594 1 6358 93 60874 ... 86922 000 000				1410z Fair, rest Weak			
14/09	594 1 6358 93 60874 ... 86922 000 000				Fair			
19/09	594 000				Fair			
21/09	594 000				Weak			
26/09	594 1 557 145 06693 ... 86199 000 000				Weak		HJH	THU
28/09	594 1 557 145 06693 ... 86199 000 000						Ary	SAT

594 594 594 1 557 145 557 145
06993 12737 82932 14773 30741 90722 68713 73954 78998 57128
94529 72869 73728 87509 32745 19502 54764 29720 23982 15907
00814 03029 00902 19426 12016 62249 10724 71990 89558 52856
23188 87053 44895 18533 09666 00234 72741 66551 94024 59244
70447 33464 29667 43446 59693 16300 52689 68366 76409 50131
01770 48658 69873 00660 86791 24867 73505 58521 09420 93252
40060 16913 92148 71575 73686 60489 49307 45756 80836 90873
92573 05600 63785 89880 53109 07310 70670 83393 83521 63596
14831 44525 13190 10693 89230 13987 77195 27041 70608 15222
80348 99816 34643 02717 49601 15424 13627 54801 24994 41862
20846 30235 08283 36043 19156 46448 71402 57221 23649 44720
24984 17793 15103 58245 83223 50671 61413 81659 94040 30605
77660 18213 17825 10730 37297 95511 88108 71423 83210 13700
92004 46673 70023 30747 02817 57108 98551 82578 99841 63743
73863 33655 13364 43515 86199 000 000 *Courtesy Ary*

October 2024

1410z	15849kHz	1430z	14849kHz	1450z	13449kHz	
03/10	746 000				Fair	
05/10	746 000				Weak	
10/10	746 1 4198 129 59873 … 48096 000 000				Weak	
12/10	NOT MONITORED					
17/10	746 000				Fair, 1430z audio distorted	
19/10	746 000				1410z NRH, 1430z Strong	
24/10	746 1 7385 88 94078 ... 27336 000 000				1410z Weak, rest Fair	
26/10	746 1 7385 88 94078 ... 27336 000 000				Fair	
31/10	746 000				Fair	

E11 & E11a log Sept/Oct

4181kHz	1605z	04/09 [395/00] Out 1608z S2	Malc	WED
	1610z	07/09 [374/00] Out 1613z S2	Malc	SAT
	1610z	11/09 [394/00] Out 1608z S2	Malc	WED
	1610z	21/09 [396/34 21636…….34549] Out 1620z S2	Malc	SAT
	1610z	25/09 [393/00] Out 1613z S5 (Finnish SDR)	Malc	WED
	1610z	02/10 [396/00] Out 1613z S2	Malc	WED
	1610z	05/10 [395/00] Out 1613z S4	Malc	SAT
	1610z	30/10 [390/00] Strong	dMHz, Gary H	WED
4505kHz	1645z	01/09 [369/00] Out 1648z S3 (Dutch SDR)	Malc	SUN
	1645z	07/09 [364/35 88947……. 22607] Out 1655z S4 (Dutch SDR)	Malc	SAT
	1645z	14/09 [368/00] Out 1648z S3	Malc	SAT

	1645z	15/09 [364/00] Out 1648z S2	Malc	SUN
	1645z	21/09 [365/00] Out 1648z S3	Malc	SAT
	1645z	22/09 [369/00] Out 1648z S2	Malc	SUN
	1645z	05/10 [360/00] Out 1648z S3	Malc	SAT
	1645z	06/10 [368/00] Out 1648z S2	Malc	SUN
5176kHz	1605z	01/09 [234/00] Out 1608z S3 (Dutch SDR)	Malc	SUN
	1605z	03/09 [233/39 65034…….37550] Out 1616z S5 (Finnish SDR)	Malc	TUE
	1605z	10/09 [236/00] Out 1608z S5 (Dutch SDR)	Malc	TUE
	1605z	17/09 [236/00] Out 1608z S2 + QRM	Malc	TUE
	1605z	22/09 [376/00] Out 1608z S2+QRM	Malc	SUN
	1605z	24/09 [230/00] Out 1608z S5 (Finnish SDR)	Malc	TUE
	1605z	01/10 [236/00] Out 1608z S3+QRM	Malc	TUE
	1605z	06/10 [230/00] Out 1608z S2+QRM	Malc	SUN
	1605z	08/10 [237/00] Out 1608z S2+QRM	Malc	TUE
	1605z	20/10 [233/00] Fair	dMHz	SUN
	1605z	22/10 [232/31 70188 21741 85003 48405 21834 43890 80994……19964 57411]	dMHz	TUE
	1605z	29/10 [231/00] Out 1608z S5+QRM	Malc	TUE
5371kHz	1300z	02/09 [314/00] Out 1303z S4 (Finnish SDR)	Malc	MON
	1300z	09/09 [315/00] Out 1303z S5 (Finnish SDR)	Malc	WED
	1300z	12/09 [311/00] Out 1303z S6 (Finnish SDR)	Malc	THU
	1300z	16/09 [316/00] Out 1303z S2 (Dutch SDR)	Malc	MON
	1300z	19/09 [310/00] Out 1303z S8 (Finnish SDR)	Malc	THU
	1300z	23/09 [316/37 47626……..12242] Out 1312z S7 (Finnish SDR)	Malc	MON
	1300z	30/09 [311/00] Out 1303z S6 (Finnish SDR)	Malc, dMHz	MON
	1300z	03/10 [316/00] Out 1303z S5 (Finnish SDR)	Malc	THU
	1300z	07/10 [312/00] Out 1303z S4 (Dutch SDR)	Malc, HfD	MON
	1300z	21/10 [311/00] Weak	dMHz	MON
	1300z	24/10 [315/00] Out 1303z	dMHz	THU
	1300z	28/10 [312/32 28051…….63371] Out 1310z S5 (Finnish SDR)	Malc	MON
5737kHz	2000z	01/09 [520/00] Out 2003z S6	Malc, Brixmis	SUN
	2000z	05/09 [521/00] Out 2003z S5	Malc, Brixmis	THU
	2000z	15/09 [524/00] Out 2003z S6	Malc	SUN
	2000z	19/09 [521/00] Out 2003z S7	Malc	THU
	2000z	22/09 [525/00] Out 2003z S7	Malc	SUN
	2000z	26/09 [521/32 85838 65948 21862 97999 02649 65408 81453 20849……72651 16085]	Gary H	THU
	2000z	03/10 [524/00] Out 2003z S8	Malc	THU
	2000z	06/10 [521/00] Out 2003z S5	Malc	SUN
	2000z	24/10 [520/37 25668 11025 74985 36254 47989 00361 56966 33341……59694 13642]Out 2010z	Brixmis	THU
	2000z	31/10 [528/00] Out 2003z S7	Malc	THU
6807kHz	0820z	05/09 [435/00] Out 0823z S3 (Dutch SDR)	Malc	THU
	0820z	06/09 [430/00] Out 0823z S4 (Dutch SDR)	Malc	FRI
	0820z	13/09 [431/00] Out 0823z S5 (Finnish SDR)	Malc	FRI
	0820z	19/09 [432/00] Out 0823z S5 (Finnish SDR)	Malc	THU
	0820z	20/09 [430/00] Out 0823z S4 (Finnish SDR)	Malc	FRI
6923khz	1715z	06/09 [975/00] Out 1715z S7	Malc	FRI
	1715z	11/09 [977/32 83685…….77185] Out 1725z S5	Malc	WED
	1715z	18/09 [974/00] Out 1718z S6	Malc	WED
	1715z	20/09 [977/00] Out 1718z S7	Malc	FRI
	1715z	25/09 [974/00] Out 1718z S5	Malc	WED
	1715z	02/10 [976/39 25854…….24008] Out 1726z S6	Malc	WED
	1715z	30/10 [974/00] Out 1718z	dMHz, Malc	WED
6940kHz	0930z	04/09 [278/00] Out 0933z S3 (Dutch SDR)	Malc	WED
	0930z	05/09 [271/00] Out 0933z S2	Malc	THU
	0930z	11/09 [278/00] Out 0933z S3 (Dutch SDR)	Malc	WED
	0930z	12/09 [277/00] Out 0933z S5 (Finnish SDR)	Malc	THU
	0930z	18/09 [276/34 45505…….71951] Out 0940z S3 (Dutch SDR)	Malc	WED
	0930z	25/09 [271/00] Out 0933z S4 (Dutch SDR)	Malc	WED
	0930z	02/10 [279/00] Out 0933z S5 (Finnish SDR)	Malc	WED
	0930z	03/10 [275/00] Out 0933z S5 (Dutch SDR)	Malc	THU
	0930z	30/10 [276/00] Out 0933z S3 (Dutch SDR)	Malc	WED
	0930z	31/10 [278/00] Out 0933z S2	Malc	THU
7317kHz	1900z	02/09 [641/00] Out 1903z S9	Malc	MON
	1900z	05/09 [648/00] Out 1903z S7	Brixmis	THU
	1900z	09/09 [649/40 49237 68804 45668 65808 63893 59746 18549……55812 44793]	Brixmis, Malc	MON
	1900z	16/09 [649/00] Out 1903z S7	Malc	MON
	1900z	19/09 [643/00] Out 1903z S7	Malc	THU
	1900z	23/09 [644/00] Out 1903z S5	Malc	MON
	1900z	30/09 [643/00] Out 1903z S5	Malc, Gary H	MON
	1900z	03/10 [644/00] Out 1903z S6	Malc	THU
	1900z	07/10 [641/36 90510…….66014] Out 1910z S4	Malc	MON
	1900z	17/10 [640/00]	Gary H	THU
	1900z	28/10 [644/00] Out 1903z S5	Malc, dMHz	MON
	1900z	31/10 [640/00] Out 1903z S7	Malc	THU
8180kHz	0700z	03/09 [579/00] Good	RNGB, Malc	TUE
	0700z	06/09 [575/00] Good	RNGB	FRI

	0700z	10/09 [570/00] Out 0703z S3	Malc	TUE
	0700z	13/09 [571/00] Fair	RNGB	FRI
	0700z	13/09 [571/00] Out 0703z S2	Malc	FRI
	0700z	17/09 [575/00] Out 0703z S3	Malc	TUE
	0700z	20/09 [575/00] Good	RNGB	FRI
	0700z	24/09 [570/38 47625 50229 61619 28761 13460……..79073 24819 68853] Out 0711z S3	RNGB, Malc	TUE
	0700z	01/10 [576/00] Out 0703z S4	Malc	TUE
	0700z	04/10 [571/00] Good	RNGB, Malc	FRI
	0700z	08/10 [570/00] Out 0703z S2	Malc	TUE
	0700z	11/10 [577/00] Good	RNGB	FRI
	0700z	22/10 [575/00] Good	RNGB	TUE
	0700z	25/10 [577/00] Good	RNGB	FRI
	0700z	29/10 [571/00] Out 0703z S5	Malc	TUE
8423kHz	0645z	24/09 [515/00] Out 0648z S4	Malc	TUE
	0645z	01/10 [518/00] Out 0648z S4	Malc	TUE
	0645z	03/10 [518/00] Out 0648z S3	Malc	THU
	0645z	08/10 [515/00] Out 0648z S2	Malc, HfD	TUE
	0645z	29/10 [511/00] Out 0648z S7	Malc	TUE
8530kHz	1910z	01/09 [616/00] Out 1813z S9	Malc	SUN
	1910z	06/09 [616/37 94199 82295 48965 94270 12047 67216 05630……99480 81996] Out 1921z S9	Brixmis, Malc	FRI
	1910z	13/09 [617/00] Out 1913z S5	Malc	FRI
	1910z	15/09 [611/00] Out 1913z S7	Malc	SUN
	1910z	20/09 [616/00] Out 1913z S5	Malc	FRI
	1910z	22/09 [610/00] Out 1913z S7	Malc	SUN
	1910z	06/10 [613/00] Out 1913z S6	Malc	SUN
	1910z	20/10 [618/00] Weak	dMHz	SUN
	1910z	25/10 [616/35 16730 57127 27246 29559 78192 32658 23618……82737 06962]	dMHz	FRI
8680kHz	0600z	06/08 [353/00] Good	RNGB	FRI
	0600z	04/10 [359/00] Good	RNGB, Malc	FRI
9079kHz	0700z	01/09 [495/00] Out 0703z S3	Malc	SUN
	0700z	07/09 [495/00] Out 0703z S5	Malc	SAT
	0700z	08/09 [492/00] Out 0703z S5	Brixmis	SUN
	0700z	14/09 [497/00] Out 0703z S4	Malc	SAT
	0700z	15/09 [498/00] Out 0703z S3	Malc	SUN
	0700z	21/09 [492/00] Out 0703z S4	Malc	SAT
	0700z	22/09 [498/00] Out 0703z S4	Malc	SUN
	0700z	29/09 [497/36 46234 14176 73206 56367 67890 32279 15348 27494 72485……695963 10442]	RNGB, Malc	SUN
	0700z	05/10 [492/38 59524…….35542] Out 0711z S6	Malc	SAT
9150kHz	0820z	04/10 [435/32 47388……64635] Out 0830z S3	Malc	FRI
	0820z	10/10 [438/00]	HfD	THU
	0820z	25/10 [435/00] Good	RNGB	FRI
	0820z	31/10 [439/00] Out 0823z S3	Malc	THU
9399kHz	1205z	03/09 [463/00] Out 1208z S3	Malc	TUE
	1205z	04/09 [461/00] Out 1208z S3	Malc	WED
	1205z	10/09 [462/00] Out 1208z S3	Malc	TUE
	1205z	11/09 [465/00] Out 1208z S2	Malc	WED
	1205z	17/09 [466/00] Out 1208z S2	Malc	TUE
	1205z	24/09 [469/33 82597…….62550] Out 1215z S5 (Finnish SDR)	Malc	TUE
	1205z	01/10 [463/00] Out 1208z S3	Malc	TUE
	1205z	02/10 [462/00] Out 1208z S3	Malc	WED
	1205z	08/10 [461/00] Out 1208z S3	Malc	TUE
	1205z	22/10 [463/00] Out 1208z S2	Brixmis	TUE
	1205z	29/10 [469/38 00968 70822 56080 82445 18232 50341 19857 34845……06252 53140]	dMHz	TUE
9951kHz	1000z	03/09 [305/00] Out 1003z S3	Malc	TUE
	1000z	06/09 [300/00] Out 1003z S3	Malc	FRI
	1000z	10/09 [300/25 26350……. 28291] Out 1008z S4	Malc	TUE
	1000z	17/09 [308/00] Out 1003z S6 (Dutch SDR)	Malc	TUE
	1000z	20/09 [307/00] Out 1003z S4	Malc	FRI
	1000z	24/09 [308/00] Out 1003z S6	Malc	TUE
	1000z	01/10 [302/00] Out 1003z S2	Malc	TUE
	1000z	04/10 [309/00] Out 1003z S3	Malc	FRI
	1000z	08/10 [304/00] Out 1003z S3	Malc	TUE
	1000z	18/10 [300/24 71210 41976 09424 68244 93724 27828 37386 37508…… 82566 33350]	Gary H	FRI
	1000z	25/10 [304/00] Out 1003z	dMHz	FRI
	1000z	29/10 [302/00] Out 1003z S3	Malc	TUE
10213khz	0745z	02/09 [260/00] Strong	RNGB, Malc	MON
	0745z	09/09 [267/38 76481…….23639] Out 0756z S7	Malc	MON
	0745z	16/09 [264/00] Out 0748z S9	Malc	MON
	0745z	23/09 [264/00] Out 0748z S5	Malc	MON
	0745z	30/09 [269/00] Out 0748z S9	Malc	MON
	0745z	07/10 [269/00] Out 0748z S3+QRM	Malc, HfD	MON
	0745z	28/10 [268/32 26598…….87050] Out 0755z S9	Malc	MON
10330kHz	1530z	05/09 [268/00] Out 1533z S9	Malc	THU
	1530z	12/09 [267/38 76481 11442 58895 83624 48212 85051 18837 60183…… 40423 23639]	Gary H	THU

	1530z	19/09 [268/00] Out 1533z S9	Malc	THU
	1530z	03/10 [260/00] Out 1533z S9	Malc	THU
	1530z	10/10 [261/00]	HfD	THU
	1530z	24/10 [260/00] Strong	Gary H	THU
	1530z	31/10 [268/32 26598 36620 32210 55767 04138 15661 14434 08377 …….87050] Out 1539z S7	Gary H, Malc, dMHz	THU
11116kHz	1815z	01/09 [927/00] Out 1818z S9	Malc	SUN
	1815z	06/09 [926/00] Out 1818z S9	Malc	FRI
	1815z	08/09 [922/00] S8	Brixmis	SUN
	1815z	13/09 [922/00] Out 1818z S9	Malc	FRI
	1815z	15/09 [924/00] Out 1818z S9	Malc	SUN
	1815z	20/09 [922/00] Out 1818z S9	Malc	FRI
	1815z	22/09 [929/00] Out 1818z S9	Malc	SUN
	1815z	04/10 [925/00] Out 1818z S7	Malc	FRI
	1815z	06/10 [921/00] Out 1818z S9	Malc	SUN
12202khz	0845z	04/09 [711/00] Strong	RNGB	WED
	0845z	09/09 [716/36 17929…….13954] Out 0855z S3	Malc	MON
	0845z	16/09 [713/00] Out 0848z S6	Malc	MON
	0845z	18/09 [718/00] Out 0848z S8	Malc	WED
	0845z	23/09 [713/00] Out 0848z S7	Malc	MON
	0845z	25/09 [714/00] Out 0848z S7	Malc	WED
	0845z	30/09 [711/00] Out 0838z S6	Malc	MON
	0845z	02/10 [711/00] Out 0848z S7	Malc	WED
	0845z	07/10 [718/00] Good with QRM	RNGB	MON
	0845z	28/10 [718/38 63461……..38993] Out 0855z S5	Malc	MON
12385kHz	1045z	02/09 [693/29 61006…….50711] Out 1054z S4	Malc	MON
	1730z	05/09 [414/32 81627 21391 65283 25509 24813 07237 81199……93215 09429] Out 1740z S9	Ary, Malc	THU
	1045z	09/09 [697/00] Out 1048z S4	Malc	MON
	1045z	11/09 [698/00] Out 1048z S4	Malc	WED
	1730z	12/09 [411/00] Out 1733z S7	Malc	THU
	1045z	16/09 [692/00] Out 1048z S9	Malc	MON
	1045z	18/09 [691/00] Out 1048z S6	Malc	WED
	1730z	19/09 [410/00] Out 1733z S9	Malc	THU
	1045z	23/09 [697/00] Out 1048z S6	Malc	MON
	1045z	25/09 [692/00] Out 1048z S7	Malc	WED
	1045z	30/09 [691/00] Out 1048z S5	Malc	MON
	1730z	03/10 [410/00] Out 1733z S7	Malc, dMHz	THU
	0450z	07/10 [412/00]	HfD	MON
	1045z	07/10 [698/00] Out 1048z S6	Malc	MON
	1730z	17/10 [411/00]	HfD	THU
	1045z	23/10 [698/23 12809 00055 19571 67285 78391 95759 45140……72034 27475 64152]	Brixmis	WED
	1045z	28/10 [694/00] Out 1048z S7	Malc	MON
	1045z	30/10 [696/00] Out 1048z S8	Malc	WED
	1730z	31/10 [416/38 10063…….16334] Out 1740z S9	Malc	THU
12530kHz	1230z	03/09 [332/00] Out 1233z S5	Malc	TUE
	1230z	05/09 [337/00] Out 1233z S6	Brixmis, Malc	THU
	1230z	10/09 [338/00] Out 1233z S3	Brixmis	TUE
	1230z	12/09 [334/00] Out 1233z S4	Malc	THU
	1230z	17/09 [338/34 11374…….83525] Out 1240z S8 (Dutch SDR)	Malc	TUE
	1230z	24/09 [333/00] Out 1233z S7	Malc	TUE
	1230z	01/10 [334/00] Out 1233z S5	Malc	TUE
	1230z	03/10 [331/00] Out 1233z S5 (Finnish SDR)	Malc	THU
	1230z	08/10 [330/00] Out 1233z S2	Malc	TUE
	1230z	17/10 [331/34 58545 59705 24610 20131 49016 56021 27892 46844 60822……29786 50854]	Gary H	THU
	1230z	22/10 [338/00] Out 1233z	Brixmis	TUE
	1230z	24/10 [332/00] Out 1233z S5	Brixmis	THU
	1230z	29/10 [228/00] Out 1233z S6	Malc	TUE
	1230z	31/10 [337/00] Out 1233z S7	Malc	THU
13117kHz	0900z	02/09 [535/00] Good	RNGB	MON
	0900z	04/09 [535/00] Strong	RNGB	WED
	0900z	09/09 [530/00] Out 0903z S3	Malc	MON
	0900z	11/09 [534/00] Out 0903z S5	Malc	WED
	0900z	16/09 [535/31 24741…….30844] Out 0910z S9	Malc	MON
	0900z	23/09 [538/00] Out 0903z S8	Malc	MON
	0900z	25/09 [538/00] Out 0903z S7	Malc	WED
	0900z	30/09 [533/00] Out 0903z S6	Malc	MON
	0900z	02/10 [530/00] Out 0903z S7	Malc	WED
	0900z	07/10 [536/32 95076……46135] Out 0910z S8	Malc	MON
	0900z	23/10 [535/00] Good	RNGB	WED
	0900z	28/10 [532/00] Good	RNGB, Malc	MON
	0900z	30/10 [532/00] Out 0903z S9	Malc	WED
13470kHz	1745z	01/09 [249/00] Out 1748z S9	Malc	SUN
	1745z	02/09 [244/00] Out 1748z S2	Malc	MON
	0645z	05/09 [517/00] Out 0648z S9	Malc	THU
	1745z	08/09 [244/00] Out 1748z	Brixmis	SUN
	1745z	09/09 [240/00] Out 1748z S9	Malc	WED
	1745z	15/09 [248/00] Out 1748z S9	Malc	SUN
	1745z	16/09 [245/40 93641…….07558] Out 1756z S8 QSB4	Malc	MON

	1745z	23/09 [245/00] Out 1748z S6	Malc	MON
	1745z	30/09 [247/00] Out 1748z S5	Malc	WED
	1745z	06/10 [247/00] Out 1748z S7	Malc, HfD	SUN
	1745z	07/10 [248/38 50204…….22824] Out 1755z S3	Malc, HfD	MON
	1745z	21/10 [242/00] Very Weak	dMHz	MON
	1745z	28/10 [247/00] Out 1747z S9	Malc	MON
14865kHz	0745z	03/09 [224/00] Good	RNGB, Brixmis	TUE
	0745z	05/09 [225/00] Good	RNGB, Brixmis	WED
	0745z	10/09 [220/35 59505 51951 46961 48246……37772]	Brixmis, Malc	TUE
	0745z	17/09 [226/00] Out 0748z S3 (Finnish SDR)	Malc	TUE
	0745z	19/09 [220/00] Out 0748z S7	Malc	THU
	0745z	24/09 [220/00] Out 0748z S5	Malc	TUE
	0745z	01/10 [220/00] Out 0748z S4	Malc	TUE
	0745z	03/10 [229/00] Out 0748z S9+QRM	Malc	THU
	0745z	08/10 [227/00] Out 0748z S2 (Finnish SDR)	Malc	TUE
	0745z	29/10 [223/00] Good	RNGB	TUE
	0745z	31/10 [224/00] Out 0748z S9	Malc	THU
14972kHz	1430z	03/09 [915/00] Out 1433z S5	Malc, Brixmis	TUE
	1430z	07/09 [911/00] Out 1433z S5	Malc	SAT
	1430z	10/09 [914/00] Out 1433z S6	Malc	TUE
	1430z	14/09 [918/00] Out 1433z S6	Malc	SAT
	1430z	21/09 [919/00] Out 1433z S4	Malc	SAT
	1430z	24/09 [912/32 57186 77358 00607 17988 53346 84589 40633……78912 87405] Out 1440z S4	Ary, Brixmis, Malc	TUE
	1430z	01/10 [429/00] Out 1433z S6	Malc	TUE
	1430z	05/10 [910/00] Out 1433z S6	Malc	SAT
	1430z	08/10 [919/34 55099…….37130] Out 1440z S4 (Finnish SDR)	Malc	TUE
	1430z	15/10 [912/00]	Gary H	TUE
	1430z	22/10 [910/00] Out 1433z S5	Brixmis, Gary H, dMHz	TUE
	1430z	29/10 [914/00] Out 1433z S5	Brixmis	TUE
15720khz	0715z	03/09 [639/00] Good	RNGB, Malc	TUE
	0715z	06/09 [634/00] Good	RNGB	FRI
	0715z	10/09 [631/00] Out 0718z S9	Malc	TUE
	0715z	13/09 [637/00] Fair	RNGB	FRI
	0715z	13/09 [637/00] Out 1718z S2	Malc	FRI
	0715z	17/09 [630/00] Out 0718z S2 (Dutch SDR)	Malc	TUE
	0715z	20/09 [639/00] Fair	RNGB	FRI
	0715z	24/09 [633/38 44314……..58247] Out 0726z S9	Malc	TUE
	0715z	01/10 [633/00] Out 0718z S7	Malc	TUE
	0715z	04/10 [637/00] Good	RNGB	FRI
	0715z	04/10 [637/00] Out 0718z S7+QRM	Malc	FRI
	0715z	08/10 [634/00] Out 0718z S2+QRM (Dutch SDR)	Malc	TUE
	0715z	11/10 [635/00] Good (Polish SDR)	RNGB	FRI
	0715z	22/10 [630/36 75405 15701 68719 92178 36497 29942…….81393 97371] Good with QRM	RNGB	TUE
	0715z	29/10 [633/00] Out 0718z S8	Malc	TUE
17410kHz	0745z	04/09 [343/40 89469 04128 96893 61540 20858 51582…….43978 26453] Weak	RNGB	WED
	0745z	13/09 [349/00] Out 0748z S4	Malc	FRI
	0745z	20/09 [344/00] Fair	RNGB	FRI
	0745z	25/09 [349/00] Out 0748z S2 (Dutch SDR)	Malc	WED
	0745z	04/10 [342/00] Good	RNGB	FRI
	0745z	02/10 [346/00] Out 0748z S7	Malc	WED
	0745z	04/10 [342/00] Out 0748z S3+QRM	Malc	FRI
	0745z	09/10 [344/00] Weak	RNGB	WED
	0745z	23/10 [340/00] Good	RNGB	WED
	0745z	25/10 [346/00] Fair	RNGB	FRI
	0745z	30/10 [343/00] Out 0748z S4	Malc	WED
18168kHz	0845z	03/09 [157/00] Out 0848z S5	Malc	TUE
	0845z	05/09 [155/00] Out 0848z S9	Malc	THU
	0845z	10/09 [152/00] Out 0848z S4 (Dutch SDR)	Malc	TUE
	0845z	12/09 [154/00] Out 0848z S5	Malc	THU
	0845z	17/09 [154/00] Out 0848z S3 (Finnish SDR)	Malc	TUE
	0845z	19/09 [154/00] Out 0848z S2	Malc	THU
	0845z	24/09 [156/27 30778…….21305] Out 0854z S2	Malc	TUE
	0845z	01/10 [151/00] Out 0848z S3	Malc	TUE
	0845z	03/10 [154/00] Out 0848z S7	Malc	THU
	0845z	08/10 [15?/?? 80510…….10901] Out 0854z S2 QSB2	Malc	TUE
	0845z	29/10 [154/00] Good	RNGB	TUE
	0845z	31/10 [152/00] Good	RNGB	THU
19184kHz	0820z	04/09 [138/38 95277……..09067] Out 0831z S9	Malc	WED
	0820z	11/09 [132/00] Out 0823z S4	Malc	WED
	0820z	17/09 [132/00] Out 0823z S2 (Finnish SDR)	Malc	TUE
	0820z	24/09 [136/00] Out 0823z S2	Malc	TUE
	0820z	25/09 [136/00] Fair	RNGB	WED
	0820z	01/10 [135/00] Fair	RNGB	TUE
	0820z	01/10 [135/00] Out 0823z S4	Malc	TUE
	0820z	02/10 [133/00] Out 0823z S7	Malc	WED
	0820z	09/10 [132/00] Fair	RNGB	WED
	0820z	22/10 [132/38 86328 96748 53840 15376 83413 66943 28070 40822……21684 45131] Good	RNGB	TUE

	0820z	29/10 [131/00] Out 0823z S7	Malc	TUE
	0820z	30/10 [130/00] Good	RNGB	WED
19515kHz	0715z	02/09 [753/00] Weak	RNGB, Malc	MON
	0715z	04/09 [752/00] Fair	RNGB	WED
	0715z	09/09 [753/35 74337…….97261] Out 0725z S4 (Dutch SDR)	Malc	MON
	0715z	16/09 [751/00] Out 0718z S2 (Dutch SDR)	Malc	MON
	0715z	18/09 [757/00] Out 0718z S2 (Dutch SDR)	Malc	WED
	0715z	23/09 [750/00] Out 0718z S2	Malc	MON
	0715z	25/09 [757/00] Out 0718z S3 (Finnish SDR)	Malc	WED
	0715z	30/09 [753/00] Out 0718z S3	Malc	MON
	0715z	02/10 [759/00] Fair	RNGB, Malc	WED
	0715z	07/10 [752/30 03384……18018] Out 0724z S4 (Dutch SDR)	Malc	MON
	0715z	23/10 [754/00] Fair	RNGB	WED
	0600z	28/10 [940/30 86606…….96495] Out 0610z S5 (Finnish SDR)	Malc	MON
	0715z	28/10 [752/00] Out 0718z S5	Malc	MON
	0715z	30/10 [759/00] Out 0718z S2	Malc	WED
20170kHz	0830z	02/09 [184/00] Out 0833z S2	Malc	MON
	0830z	06/09 [184/00] Out 0833z S4	Malc	FRI
	0830z	09/09 [185/27 16027 59928 43428 68401 67255 87189 03065…….92794 23373 15283] Fair	RNGB, Malc	MON
	0830z	16/09 [188/00] Out 0833z S2 (Dutch SDR)	Malc	MON
	0830z	20/09 [188/00] Out 0833z S2 (Finnish SDR)	Malc	FRI
	0830z	23/09 [181/00] Out 0833z S7	Malc	MON
	0830z	30/09 [185/00] Out 0833z S5 (Finnish SDR)	Malc	MON
	0830z	07/10 [188/00] Good	RNGB, HfD	MON
	0830z	21/10 [189/28 37905 78966 65636 30472 24322 78248 50775…..75915 63068 37014] Fair	RNGB	MON
	0830z	28/10 [188/00] Good	RNGB	MON

Peter sends ome of the stronger examples over the last two months from this very active number station. As usual the vast majority are of the "oblique zero zero" - "no message" format lasting just over three minutes.

5737 kHz 2000 UTC
1-Sept-24, Sun:- "520/00"
5-Sept-24, Thu:- "521/00"
15-Sept-24, Sun:- "521/00"
19-Sept-24, Thu:- "521/00"
29-Sept-24, Sun:- "521/32", message, "Out" at 2009:44s UTC.
3-Oct-24, Thu:- "524/00"
6-Oct-24, Sun:- "521/00"
10-Oct-24, Thu:- "528/00"
13-Oct-24, Sun:- "521/00"
17-Oct-24, Thu:- "520/00"
20-Oct-24, Sun:- "524/00"
24-Oct-24, Thu:- "520/37", message, "Out" at 2010:40s UTC.

7317 kHz 1900 UTC
2-Sept-24, Mon:- "641/00"
5-Sept-24, Thu:- "648/00"
9-Sept-24, Mon:- "649/40", message, "Out" at 1911:22s UTC.
12-Sept-24, Thu:- "649/40" again.
19-Sept-24, Thu:- "643/00"
26-Sept-24, Thu:- "641/00"
3-Oct-24, Thu:- "644/00"
7-Oct-24, Mon:- "641/36", message, "Out" at 1910:38s UTC.
10-Oct-24, Thu:- "641/36" again.
14-Oct-24, Mon:- "649/00"
17-Oct-24, Thu:- "640/00"
24-Oct-24, Thu:- "649/00"

8180 kHz 0700 UTC
3-Sept-24, Tue:- "579/00"
6-Sept-24, Fri:- "575/00"
10-Sept-24, Tue:- "570/00"
17-Sept-24, Tue:- "575/00"
20-Sept-24, Fri:- "575/00"
27-Sept-24, Fri:- "570/38", message, "Out" at 0710:48s UTC.
1-Oct-24, Tue:- "576/00"
8-Oct-24, Tue:- "570/00"
15-Oct-24, Tue:- "579/39", message, "Out" at 0710:56s UTC.
18-Oct-24, Fri:- "579/39" again.
22-Oct-24, Tue:- "575/00"
25-Oct-24, Fri:- "577/00"

8530 kHz 1910 UTC
1-Sept-24, Sun:- "616/00"
6-Sept-24, Fri:- "616/37", message, "Out" at 1920:49s UTC.
8-Sept-24, Sun:- "616/37" again.
13-Sept-24, Fri:- "617/00"
22-Sept-24, Sun:- "610/00"
27-Sept-24, Fri:- "617/00"
29-Sept-24, Sun:- "610/00"

4-Oct-24, Fri:- “617/00”
6-Oct-24, Sun:- “613/00”
11-Oct-24, Fri:- Very weak signal, unreadable.
13-Oct-24, Sun:- “617/00”, strong signal this evening.
20-Oct-24, Sun:- “618/00”
25-Oct-24, Fri:- “616/35”, message, “Out” at 1920:11s UTC.

12202 kHz 0845 UTC
2-Sept-24, Mon:- “710/00”
4-Sept-24, Wed:- “711/00”
11-Sept-24, Wed:- “716/36”, message, “Out” at 0855:20s UTC.
16-Sept-24, Mon:- “713/00”
18-Sept-24, Wed:- “718/00”
30-Sept-24, Mon:- “711/00”
2-Oct-24, Wed:- “711/00”
7-Oct-24, Mon:- “718/00”
9-Oct-24, Wed:- “711/00”
14-Oct-24, Mon:- “711/00”
16-Oct-24, Wed:- “718/00”
21-Oct-24, Mon:- “719/00”
28-Oct-24, Mon:- “718/38”, message, “Out” at 0855:55s UTC.

14972 kHz 1430 UTC
3-Sept-24, Tue:- “915/00”
7-Sept-24, Sat:- “911/00”
10-Sept-24, Tue:- “914/00”
14-Sept-24, Sat:- “918/00”
17-Sept-24, Tue:- Nothing readable, unusual for this one, presumably due to propagation.
21-Sept-24, Sat:- “919/00”, reasonable signal today.
28-Sept-24, Sat:- “912/32”, message, “Out” at 1439:42s UTC.
1-Oct-24, Tue:- “917/00”
5-Oct-24, Sat:- “910/00”
8-Oct-24, Tue:- Again, nothing readable, probably a weak signal down in the noise.
12-Oct-24, Sat:- “919/34”, message, weak, became unreadable.
15-Oct-24, Tue:- “912/00”, strong signal this afternoon.
22-Oct-24, Tue:- “910/00”
26-Oct-24, Sat:- “914/00”
29-Oct-24, Tue:- “914/00”

17410 kHz 0745 UTC
4-Sept-24, Wed:- “343/40, message, “Out” at 0756:24s UTC.
6-Sept-24, Fri:- 343/40 again.
11-Sept-24, Wed:- “346/00”
13-Sept-24, Fri:- “349/00”
2-Oct-24, Wed:- “346/00”
4-Oct-24, Fri:- “342/00”, interference from strong buzz extending from about 17405 to 17417 kHz.
18-Oct-24, Fri:- “343/34”, message, “Out” just before 0755 UTC.
23-Oct-24, Wed:- “340/00”
25-Oct-24, Fri:- “344/00”

19184 kHz 0820 UTC
4-Sept-24, Wed:- “138/38”, message, strong signal, “Out” at 0830:53s UTC.
11-Sept-24, Wed:- “132/00”
1-Oct-24, Tue:- “135/00”
2-Oct-24, Wed:- “133/00”
22-Oct-24, Tue:- “132/38”, message, “Out” at 0830:45s UTC.
23-Oct-24, Wed:- “132/38” again.

S06

RNGB’s intercepts:

Friday 1st & 3rd		**1900z**	**9925khz**	**2000z**	**7505kHz**
06/09	‘842’ 00000				
20/09	‘842’ 00000				
		2000z	**9925kHz**	**2100z**	**7505kHz**
04/10	‘842’ 00000				

PoSW finds:

First + Third Fridays in the Month Schedule:-
As expected, based on observations in past years, in September uses similar frequencies to those logged in March and April.
6-Sept-24:- 1900 UTC, 9925 kHz, “843 843 843 00000”, strong enough to be heard above local RF noise interference. 2000 UTC, 7505 kHz, good signal.

20-Sept-24:- 1900 UTC, 9925 kHz, “842 842 842 00000”.
Missed the second sending at 2000 UTC.

As expected, advanced by one hour in October:-
4-Oct-24:- 2000 UTC, “842 842 842 00000”, over-riding local interference.
2100 UTC, 7505 kHz, good signal.

18-Oct-24:- 2100 UTC, 7505 kHz – missed the first sending at 2000 - “842 842 842 00000”, good signal.

S11a log Sept/Oct

6433kHz	0830z	01/09 [379/00] Good			RNGB	SUN
	0830z	07/09 [378/00] Weak			RNGB	SAT
	0830z	08/09 [370/00] Good			RNGB	SUN
	0830z	14/09 [373/39 02269…….07387] Out 1433z S7			Malc	SAT
	0830z	21/09 [371/00] Konyetz 0833z S2			Malc	SAT
	0830z	22/09 [376/00] Konyetz 0833z S7			Malc	SUN
	0830z	29/09 [376/00] Konyetz 0833z S5			Malc	SUN
	0830z	05/10 [379/00] Fair			RNGB	SAT
	0830z	06/10 [370/00] Konyetz 0833z S2			Malc	SUN
6480khz	0915z	02/09 [486/00] Weak			RNGB	MON
	0915z	06/09 [486/00] Konyetz 0918z S3	(Dutch SDR)		Malc	FRI
	0915z	09/09 [481/00] Konyetz 0918z S2	(Dutch SDR)		Malc	MON
	0915z	13/09 [480/00] Konyetz 0918z S9	(Finnish SDR)		Malc	FRI
	0915z	16/09 [485/00] Konyetz 0918z S3	(Dutch SDR)		Malc	MON
	0915z	20/09 [483/00] Konyetz 0918z S7	(Finnish SDR)		Malc	FRI
	0915z	23/09 [486/36 22921……..31187] Konyetz 0918z S7		(Finnish SDR)	Malc	MON
	0915z	30/09 [483/00] Konyetz 0918z S5	(Finnish SDR)		Malc	MON
	0915z	07/10 [484/00] Konyetz 0918z S2	(Dutch SDR)		Malc, HfD	MON
	0915z	25/10 [482/00] Fair			RNGB	FRI
	0915z	28/10 [487/00] Konyetz 0918z S3	(Dutch SDR)		Malc	MON
8597kHz	0700z	02/09 [479/00] Konyetz 0703z S2			Malc	MON
	0700z	05/09 [472/00] Strong			RNGB	THU
	0700z	09/09 [475/00] Konyetz 0703z S3			Malc	MON
	0700z	12/09 [472/00] Strong			RNGB, Malc	THU
	0700z	16/09 [472/00] Konyetz 0703z S5			Malc	MON
	0700z	19/09 [472/00] Konyetz 0703z S2			Malc	THU
	0700z	23/09 [477/40 84768 89289 41041 65368 91807 60618 96761……12096 30158] Konyetz 0713z			RNGB, Malc	MON
	0700z	30/09 [470/00] Konyetz 0703z S4			Malc	MON
	0700z	03/09 [478/00] Good			RNGB	THU
	0700z	03/10 [478/00] Konyetz 0703z S3			Malc	THU
	0700z	07/10 [475/00] Konyetz 0703z S3			Malc, HfD	MON
	0700z	10/03 [477/00] Good			RNGB	THU
	0700z	28/10 [471/00] Konyetz 0703z S4			Malc	MON
	0700z	31/10 [477/00] Konyetz 0703z S5			Malc	THU
10213kHz	1850z	04/09 [280/00] Konyetz 1853z S9			Malc	WED
	1850z	07/09 [287/00] Konyetz 1853z S9			Malc	SAT
	1850z	11/09 [288/00] Konyetz 1853z S9			Malc	WED
	1850z	14/09 [284/00] Konyetz 1853z S9			Malc	SAT
	1850z	18/09 [281/33 57701…….93228] Konyetz 1901z S9			Malc	WED
	1850z	25/09 [282/00] Konyetz 1853z S9			Malc, Gary H	WED
	1850z	02/10 [284/35 56937……..13036] Konyetz 1902z			Malc	WED
	1850z	30/10 [281/00] Konyetz 1853z S9			Malc	WED
10728kHz	0445z	08/10 [790/00]			HfD	TUE
11420kHz	1400z	03/09 [422/00] Konyetz 1403z S4			Malc	TUE
	1400z	06/09 [422/00] Konyetz 1403z S4			Malc	FRI
	1400z	10/09 [424/37 78873…….86704] Konyetz 1412z S6			Malc	TUE
	1400z	17/09 [427/00] Konyetz 1403z S9			Malc	TUE
	1400z	20/09 [424/00] Konyetz 1403z S5			Malc	FRI
	1400z	24/09 [427/00] Konyetz 1403z S6			Malc	TUE
	1400z	01/10 [429/00] Konyetz 1403z S3			Malc	TUE
	1400z	04/10 [422/00] Konyetz 1403z S5			Malc, Gary H	FRI
	1400z	08/10 [427/00] Konyetz 1403z S2			Malc	TUE
	1400z	29/10 [422/00] Konyetz 1433z S5			Malc	TUE
21854khz	0725z	04/09 [387/00] Weak			RNGB	WED
	0725z	06/09 [382/00] very weak			RNGB	FRI
	0725z	11/09 [381/31 15237……28675] Konyetz 0735z S4 (Finnish SDR)			Malc	WED
	0725z	18/09 [382/00] Konyetz 0728z S4	(Finnish SDR)		Malc	WED
	0725z	20/09 [382/00] Konyetz 0728z S3	(Finnish SDR)		Malc	FRI
	0725z	25/09 [389/00] Konyetz 0728z S4	(Finnish SDR)		Malc	WED
	0725z	02/10 [383/00] Fair			RNGB, Malc	WED
	0725z	04/10 [381/00] Weak			RNGB, Malc	FRI
	0725z	11/10 [385/00] Fair	(Polish SDR)		RNGB	FRI
	0725z	23/10 [380/00] Fair			RNGB	WED
	0725z	25/10 [385/00] Weak			RNGB	FRI
	0725z	30/10 [382/00] Konyetz 0728z S2			Malc	WED

V07

Sunday

September 2024

0200z 17431kHz 0220z 16131kHz 0240z 14431kHz

17431kHz0200z 01/09 NRH DanAR SUN

17431kHz0200z 08/09 414 1 498 101 70736 ... 49243 000 000 DanAR SUN

414 414 414 1
498 101
70736 63056 76266 93515 92088
56324 94488 57279 51882 98601
40707 01887 13871 06594 24831
53094 19865 71085 85232 33692
16191 73083 02799 92580 70758
20331 26275 08089 79680 22405
45836 48096 97340 16776 23539
70056 36296 12916 26884 18612
68136 45974 29928 50250 62984
59802 78994 10864 84369 28008
36824 51792 54570 79326 32889
00760 41798 33637 83651 68000
89025 57515 07474 46999 79303
90044 00927 90249 36091 65505
59346 77077 33471 89799 86691
11584 02357 33207 17556 87979
01981 11387 38692 51709 16766
23536 15879 52158 81302 46719
46137 32239 29994 75799 15427
12008 49907 40815 16879 03410
49243 000 000 *Courtesy DanAR*

17431kHz0200z 15/09 414 1 1028 82 34306 ... 67409 000 000 Weak QSB2 DanAR SUN

414 414 414 1
1028 82
34306 72801 09789 705 5 15766
99713 45567 87928 33725 77847
69917 87201 24094 21263 55749
58491 1823 14967 68779 15324
65704 2338 2 947 2.....
.....

74520 42034 29882 67409 000 000
Courtesy DanAR

17431kHz0200z 22/09 414 1 327 115 94984 ... 79152 000 000 Weak DanAR SUN

414 414 414 1
327 115
94984 51524 55198 33153 75595
45141 92873 84204 59321 01460
78099 35717 67326 99220 61085
80372 56267 49070 68436 85600
22287 07492 78070 82606 40822
72831 76149 62784 63749 36356
34802 00350 71003 42391 86399
90199 16673 89043 21038 49466
40852 19963 60256 37475 04572
52797 99924 21235 28934 01570
30828 65760 55392 15264 68590
81031 67445 66562 16034 57886
09876 38488 95048 66896 14155
75341 25463 14098 56869 45091
02873 10821 26033 83722 77130
88445 64310 62756 34408 58204
47557 06758 38422 63509 69250
59147 84799 41123 77161 31599
42104 18944 97087 41425 45195
36388 67273 48237 07390 89761
18083 60105 79569 73531 21000
14037 37155 75789 10488 05579
10596 47458 41906 19653 79152
000 000 *Courtesy DanAR*

October 2024

0200z 18217kHz 0220z 16317kHz 0240z 15817kHz

06/10 238 1 4034 123 00905 ... 80418 000 000 18217kHz only Weak DanAR SUN

238 238 238 1
4034 123
00905 73930 60376 67990 26790
58751 10934 80661 94560 97723
08907 84934 75828 74567 92485
62566 04355 48904 01340 41906
16345 69955 15413 06754 78044
62359 95981 31830 08622 44049
89786 12239 16007 61316 80305
87997 73493 88795 89745 23613
15215 82388 39770 66207 00264
09910 01326 78321 87254 14203
34514 00536 95967 98860 06218
95009 31090 93417 65884 23613
50121 42388 78240 46449 73470
21542 02701 59606 56844 21487
37916 06278 37815 11905 12638
96420 04211 70906 83092 17075
61485 22097 45995 37158 38731
61981 06111 17480 41440 36523
13829 43015 38213 75005 09600
40454 47849 01796 10718 06630
38252 65362 64054 41916 86598
44289 71973 01660 84763 66109
47425 64483 72148 17054 73448
34973 59939 12287 49852 08821
18601 86285 80418 000 000
Courtesy DanAR

13/10 238 1 1859 125 04137 ... 29150 000 000 18217kHz only Weak DanAR SUN

238 238 238 1
1589 125
04137 77716 48693 98221 12210
59912 34150 81532 43560 67938
86775 25148 30117 71503 93907
50194 30662 43829 73730 88240
17342 52120 77899 69446 97316
96416 19202 69173 67433 14475
45281 78510 49076 48660 89047
21049 95552 72024 67901 79771
73074 23750 30153 38429 77477
52215 48419 41585 53811 94665
79574 02236 85539 47662 94283
78503 37124 59743 85053 43671
06205 64865 45206 32361 28375
12267 73098 81020 67129 04478
29905 37825 58839 72479 76758
79303 05415 04461 36137 87252
47899 83116 46325 02529 77093
37719 16275 67935 85696 94232
67381 10450 57591 59362 06967
35689 81085 00230 56214 50034
90313 45027 11335 08367 62732
73116 95738 97809 57698 44868
83833 82460 35853 55213 73238
99593 08655 72975 87583 98413
26570 81649 06056 68973 29150
000 000 *Courtesy DanAR*

20/10 238 1 3030 59 77776 ... 34459 000 000 18217kHz only Weak DanAR SUN

238 238 238 1
3030 59
77776 78095 46559 98775 82907
47515 80065 95583 18761 58293
10880 46522 60252 87641 15877
85167 50462 82111 54974 99512
35114 60697 36961 13646 38156
23846 80113 27619 59066 31848
95494 02614 29147 36306 52212
59069 42600 37462 77819 58182
81587 76311 18469 42769 90813
12577 83974 04692 93607 89241
80438 04519 14091 22138 32983

08352 32508 50185 34459
000 000 *Courtesy DanAR*

27/10	238 1 4896 87 23702 ... 38028 000 000	18217kHz only	Weak		DanAR	SUN

238 238 238 12
4896 87
23702 34470 46129 05244 32906
82687 56765 98433 44258 94858
77057 46967 62897 61790 45827
25519 88859 98769 66847 29534
72334 24073 74640 23442 34988
15202 76563 43479 36499 88951
14053 54149 19561 86474 48772
62113 63470 86708 69327 07956
96428 91324 35918 91969 13901
69073 22305 11821 13094 85116
73861 88533 75673 33837 03468
41484 11581 62930 60296 86011
27011 05088 00834 17600 37363
59651 95297 67018 19268 02946
31208 79142 46569 24299 85862
67939 02346 85539 30471 30360
08133 31198 52380 14372 95684
49375 38028 000 000
Courtesy DanAR

V13

Please read new definitions in Editorial

Ary writes:

An odd one that I copied yesterday. All messages are identical, and there were two copies of the message for each unit. Group counts were stated as 114 in the call up, almost certainly referring to both copies of the message added together.

13974 15-10-2024 1200 V13 USB New Star Broadcasting. Station 3. Messages to units 3495 and 6759
14944 15-10-2024 1200 V13 USB New Star Broadcasting. Station 3. Messages to units 3495 and 6759

Unit IDs: 3495 and 6759
Group Counts: 57, 57, 57, 57

4697 0772 0457 9151 7363 2253 6728 1071 1106 0814
6170 3639 7613 1549 3615 0689 2376 7754 6439 6839
1606 4954 3911 1353 3219 3681 9312 0927 7050 8388
9265 1684 2956 4009 9212 2622 5310 2378 0891 5464
5242 5249 1033 7780 1180 1323 3298 2313 6745 2643
5992 4460 2169 8289 9809 9134 1590

4697 0772 0457 9151 7363 2253 6728 1071 1106 0814
6170 3639 7613 1549 3615 0689 2376 7754 6439 6839
1606 4954 3911 1353 3219 3681 9312 0927 7050 8388
9265 1684 2956 4009 9212 2622 5310 2378 0891 5464
5242 5249 1033 7780 1180 1323 3298 2313 6745 2643
5992 4460 2169 8289 9809 9134 1590

4697 0772 0457 9151 7363 2253 6728 1071 1106 0814
6170 3639 7613 1549 3615 0689 2376 7754 6439 6839
1606 4954 3911 1353 3219 3681 9312 0927 7050 8388
9265 1684 2956 4009 9212 2622 5310 2378 0891 5464
5242 5249 1033 7780 1180 1323 3298 2313 6745 2643
5992 4460 2169 8289 9809 9134 1590

4697 0772 0457 9151 7363 2253 6728 1071 1106 0814
6170 3639 7613 1549 3615 0689 2376 7754 6439 6839
1606 4954 3911 1353 3219 3681 9312 0927 7050 8388
9265 1684 2956 4009 9212 2622 5310 2378 0891 5464
5242 5249 1033 7780 1180 1323 3298 2313 6745 2643
5992 4460 2169 8289 9809 9134 1590

Thanks Ary!

V26

No Reports

Polytones

XPA1 Wed/Fri

Wednesday/Friday

September 2024

1210z	**12137kHz**	**1230z**	**11137kHz**	**1250z**	**10237kHz**
04/09	112 000 nnnnn 00001 00000 … 3565n				1210z Weak QSB4
06/09	112 000 02159 00001 00000 … 36257				1210z Fair, rest Unworkable
11/09	112 000 06562 00001 00000 … 34664				1210z Weak, rest Unworkable
13/09	Null Message.				1210z Unworkable, rest NRH Poor condx
18/09	112 000 05298 00001 00000 ... 36266				1250z Unworkable, rest Weak
20/09	Not monitored, Lightning				
25/09	112 000 04754 00001 00000 … 36662				Weak, 1230z Unworkable
27/09	112 000 05136 00001 00000 … 34660				Weak, QSB3

October 2024

1210z	**14564kHz**	**1230z**	**13564kHz**	**1250z**	**11464kHz**
02/10	554 1 00615 00081 31517 ... 70657				Weak

554 554 554 1 554 544 554 1 554 554 554 1

00615 00081 31517 36301 89639 13294 55931 30682 70643 89561
63656 16588 91675 14718 36489 30773 61656 84021 01591 41447
53293 04570 90075 06854 20326 83038 75037 81557 83859 61846
79491 75811 89804 56039 92846 28465 28584 56683 98811 46483
84792 64537 16776 43933 97639 42398 91029 01808 18168 71107
70085 81007 17162 52963 20261 72496 62038 48566 45570 96906
87134 61856 44576 96181

95392 05344 67989 12099 98025 25087 10219 46766 49259 58197
70839 60563 02052 29503 52592 92351 54870 28939 73031 70657

Courtesy PLdn

04/10	554 1 00615 00081 31517 ... 70657				Weak
09/10	554 1 00615 00081 31517 ... 70657				1250z Weak, rest Fair
11/10	NOT MONITORED				
16/10	554 1 00615 00081 31517 ... 70657				1250z Unworkable, rest Weak 1210z QSB4 on last group
18/10	554 1 00615 00081 31517 ... 70657				1250z Weak, rest Fair
23/10	554 000 08508 00001 00000 ... 37660				1250z Weak, rest Fair
25/10	554 000 4421 00001 00000 ... 33656				1250z Weak, rest Strong
30/10	554 000 09175 00001 00000 ... 34270				1250z Unworkable, rest Weak

XPA2 p Mon/Wed

Monday/Wednesday

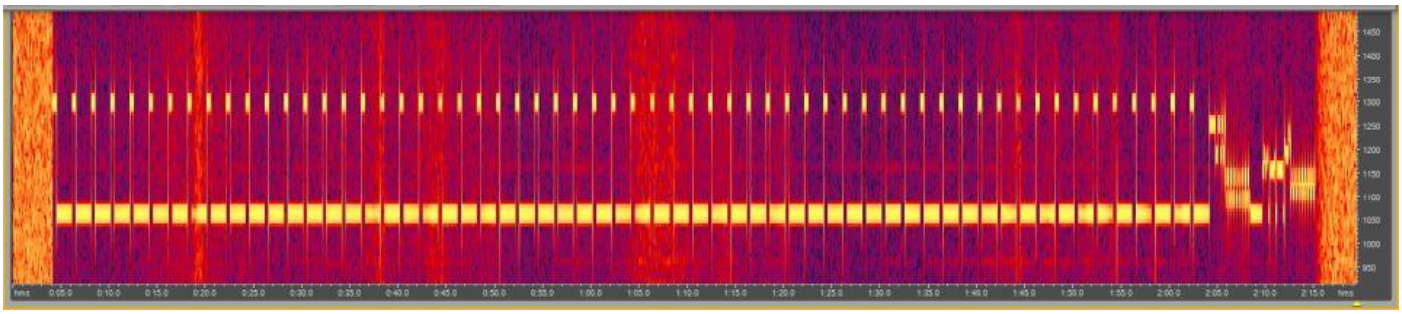
September 2024

0700z	**12152kHz**	**0720z**	**13552kHz**	**0740z**	**13952kHz**
02/09	08002 00001 00000 … 32260				Fair
04/09	06402 00001 00000 … 34256				0700z Fair, rest Weak
09/09	08758 00117 16814 ... 55454				Weak
11/09	08758 00117 16814 ... 55454				Weak QSB3/4
16/09	08758 00117 16814 ... 55454				0740z Unworkable, rest Weak

18/09 08758 00117 16814 ... 55454 0700z Strong, rest Fair

23/09 08758 00117 16814 ... 55454 Strong

25/09 08758 00117 16814 ... 55454 Weak, 0700z QSB3



30/09 02012 00001 00000 … 32253 Strong [As above]

0700z 13372kHz 0720z 14762kHz 0740z 15872kHz

02/10 07928 00001 00000 ... 41661 Strong

07/10 09151 00098 93917 ... 26124 0700z Very strong, rest Strong

09151 00098 93917 47473 59698 31648 46279 15442 56979 03654
85593 78246 70349 77367 07939 83099 94769 15480 68344 88741
17784 24708 50091 68139 93739 29746 35379 39292 52155 92446
27012 90686 18873 09921 08605 27119 85060 24035 55042 66858
04747 45513 28779 43625 25985 07116 67419 72096 61394 91090
81052 76752 08389 87837 20399 39160 17314 10951 04107 97012
28519 01681 46422 13856 78026 74964 36881 15130 65716 79548
92310 86671 80250 23704 71117 22933 02069 18533 80330 71761
86633 15263 63338 73817 45299 50140 20362 38789 94727 36752
78292 11510 94197 49143 30729 44844 92036 49701 25728 09334
26124 *Courtesy PLdn*

09/10 09151 00098 93917 ... 26124 Strong

14/10 09151 00098 93917 ... 26124 Very strong

16/10 09151 00098 93917 ... 26124 Strong

21/10 05874 00001 00000 ... 37264 0700z Weak, rest Strong. QRM2 0700/0740z

23/10 09690 00001 00000 ... 34272 Very strong

28/10 08800 00128 14848 ... 43741 Strong, 0720/0740z QRM2

08800 00128 14848 54960 27774 71028 09348 30700 17356 52651
85043 16248 12405 72290 64156 97029 73388 22224 46445 69623
99268 27682 04939 88524 75198 34960 31610 68948 70951 89575
38436 08099 46520 98237 33248 27553 33089 62036 73126 27187
22500 51057 97739 15459 72942 71010 10125 29578 09535 73746
35152 51150 45031 50337 23979 40632 43434 78252 61475 14956
13128 00707 96656 60887 63342 05513 54156 30370 60330 42411
26323 33816 06037 45450 64721 83593 40253 85283 05430 59792
49087 86886 79995 55575 64411 79975 91260 62601 77130 93172
29545 50052 97542 31329 60811 37437 88047 98557 44849 04845
48872 74254 20197 62840 80733 50454 66811 98603 25307 65548
17116 86026 61128 65188 30350 75507 68925 39309 58861 92775
92377 57202 60077 69393 27099 55759 99215 17589 28975 04582
43741 *Courtesy PLdn*

XPA2 Mon/Sat

1500z 13906kHz 1520z 12106kHz 1540z 10906kHz

28/10 09736 00001 00000 ... 37664 Fair, 1500z Missed

XPA2 Tuesday/Friday

September 2024

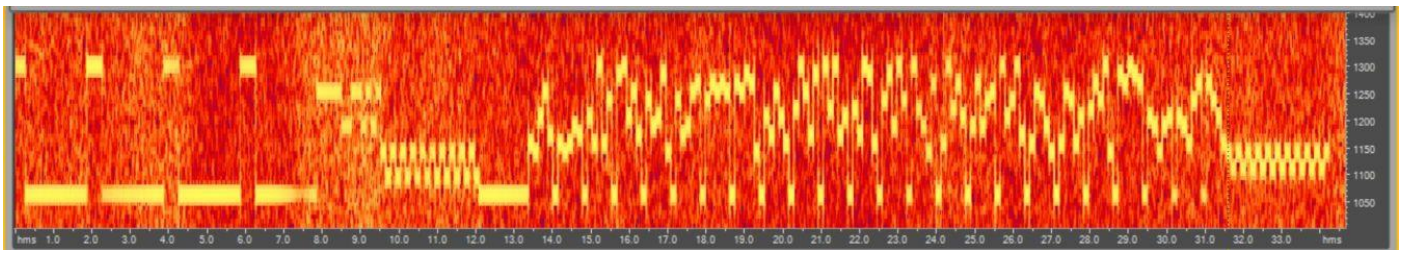
1100z 13431kHz 1120z 12131kHz 1140z 11431kHz

03/09	02853 00111 39843 … 52674	1120z Weak QSB3, 1100z Missed, 1140z NRH
06/09	Not Monitored, Lightning	
10/09	Not Monitored, threat of lightning	
13/09	Unworkable. poor condx	
17/09	Not monitored, Lightning	
20/09	Not monitored, Lightning	
24/09	00123 00191 41142 ... 10403	Weak, 1100/1120z QSB3
27/09	00123 00191 41142 ... 10403	Weak

October 2024

1100z 14537kHz 1120z 13437kHz 1140z 10737kHz

01/10	08604 00063 80734 … 16116	1100z Weak QSB2, rest Unworkable
04/10	08604 00063 80734 … 16116	1100z Weak QSB2, rest Unworkable
08/10	Not monitored, Lightning	
11/10	Not Monitored	
15/10	00361 00021 30905 … 75300	1140z Unworkable, rest Weak [See below]



14537kHz 1100z 15/10/20024 [short message]

18/10	00361 00021 30905 ... 75300	Weak [See above]
22/10	00361 00021 30905 ... 75300	Weak
25/10	00361 00021 30905 ... 75300	1100z Fair, rest Weak
29/10	09707 00001 00000 ... 40261	1140z Weak QSB3, rest Fair

Other XPA2:

Other XPA2 [from Ary]

19298 12-09-2024 1020 XPA2 MFSK-16/20Bd
18208 12-09-2024 1030 XPA2 MFSK-16/20Bd
17419 12-09-2024 1040 XPA2 MFSK-16/20Bd
00869 00342 08516 01954 97292 76254 93753 70790 18516 22707
87409 42113 55737 23069 43229 10845 44375 55881 11533 75688
64937 65871 26848 04123 11768 68415 66947 10068 97225 14308
44673 77446 39807 74980 54282 66563 65716 45819 77420 94054
41000 92033 25653 45765 13328 61103 38873 43321 88266 43067
58468 36223 96883 51170 16918 09173 58844 04391 88184 28877
09306 83685 73564 04208 78033 09963 02305 80756 69775 76654
45128 98555 78469 17478 33698 72903 40117 81082 90685 51663
29442 23426 20800 54158 54829 08449 80550 88636 58061 44109
07628 61323 56633 48543 84746 57314 18469 21445 66731 03364
58798 58216 73634 12613 97837 60921 57753 79415 16471 44004
68854 77862 13695 27521 99333 74670 62885 08444 48366 70482
29410 13666 22694 23676 69015 83801 31822 28815 32720 77383
54433 08772 14350 77231 92864 71225 49890 08186 56219 93907
50695 00036 72164 14047 76154 29765 47629 19112 49108 98865
94428 99062 72066 96146 74052 45129 35521 48858 43486 14135
18889 27827 46684 39087 88579 50181 63511 26462 44656 28208
35889 54698 63184 55469 19887 28273 31101 08646 37411 39260
36172 22810 80005 33763 82843 55259 45065 08200 12078 36623
34603 00932 64499 31084 74907 22867 54441 33077 23366 25872
66243 21166 74444 20888 63076 39730 34878 06597 76257 44779
03627 15773 00436 04326 77961 96188 47009 12920 55132 33209
03376 44308 13284 96920 92503 33956 90097 21100 80560 97008
73871 08423 83180 22547 63005 04005 48354 58806 70686 33223
08380 30006 31842 66398 44006 08819 00395 60173 64111 77708
75856 31430 76843 80244 22485 20944 06881 77533 18384 28008
49631 00777 36024 79238 71956 95200 42692 77887 31318 62955
47833 87091 42233 11909 03607 73366 03365 44883 52813 83664
33361 28823 56877 00842 21150 32291 21468 93923 00053 52061
07113 70818 31522 42566 93590 04612 94071 62701 85440 48803

55034 22605 28854 00065 30883 88765 99995 64023 75526 38016
07567 61886 13608 33718 93655 08806 56688 33183 57067 39663
63722 48767 77833 78255 55732 77703 55558 88664 19318 00002
78295 44661 50331 03908 11538 00855 00870 55800 70955 32284
32224 66443 18385 50824 40001

19604 12-09-2024 1310 XPA2 MFSK-16/20Bd
19181 12-09-2024 1320 XPA2 MFSK-16/20Bd
17429 12-09-2024 1340 XPA2 MFSK-16/20Bd

00775 00425 33133 75171 48376 96787 48159 66111 46091 95757
26451 27970 06385 42136 21245 61653 26478 43028 66335 60817
90089 02405 36169 30863 56554 52635 48210 37639 45413 44049
90594 71315 73614 15170 12707 04148 40623 02647 79607 83554
46527 62222 58012 48703 05372 14314 71428 13647 73943 54217
00592 05994 22402 19310 16084 69952 38944 02270 18617 95739
48576 10519 20697 02042 05163 55134 54354 91214 29428 17096
21030 23831 63419 82780 14290 27867 44392 87464 25490 42240
81206 34563 63695 91195 43456 84599 48912 54304 99085 42754
65203 38352 84028 83867 34977 36007 41524 55970 43540 50237
59958 80212 84217 56846 33186 76759 42573 39620 05020 88216
25560 51478 76778 76376 14532 14013 46823 29501 58584 20562
06221 00050 92128 86673 51891 82676 39802 79551 47803 78281
86341 88421 43924 75251 82280 00993 50345 06848 58008 66695
42025 09292 49284 10869 17193 13725 61573 07652 69334 20964
89182 12022 97384 22977 44015 59907 88083 97542 04954 50509
36957 63021 91816 26737 01874 37138 07554 01527 94094 13538
63667 39975 71491 91887 78535 96928 50765 81258 69480 38166
21103 32149 10216 26839 89097 74318 91035 20946 31236 22372
12908 52801 01893 07499 29738 79003 17474 22546 08994 80053
06170 60046 13556 55795 57296 49207 40530 05497 44441 47086
09142 06824 28062 66787 29405 04808 52804 64976 37639 27554
46102 86607 70289 71721 00629 10865 38082 63991 62149 99531
79453 28219 72264 89425 31995 61056 18592 54420 69542 39889
33788 85537 76503 84149 13230 06083 24738 35104 78093 24929
26199 52496 84905 81439 33951 19562 89755 41833 55165 46430
11125 76537 43347 44908 67631 80921 34559 38636 34791 68347
86214 98383 95433 97748 93765 60563 10103 86139 58491 94544
86126 02977 85897 37219 73332 26956 43312 90823 55473 12432
71300 76758 99253 23112 28764 57249 42190 31595 16517 32307
71523 86101 00313 09745 38714 27815 57062 87156 87673 73387
09459 03616 83341 60619 60302 08147 90638 06127 71575 40674
36609 33735 83161 22358 97046 09456 99128 72211 68883 36515
18372 78507 69611 26183 23011 23025 02664 66152 88504 45517
68893 56155 03150 82085 02973 66684 93415 38633 62808 20617
66600 36063 60018 75841 94687 27788 02939 77953 12697 29258
28685 84739 18172 51158 55014 30951 33993 57157 37588 60277
04483 14486 06622 26058 70780 81452 40584 00066 19385 29362
16039 60495 09513 48366 69904 82308 18488 93778 31485 95222
97084 24700 63455 69246 16831 85152 37882 51991 27070 72020
33690 36258 00035 02530 15134 52124 28440 22959 05061 12244
87202 01863 58567 83334 13118 68189 75226 68805 81253 72704
12462 40114 25671 42364 63192 80772 50029 70031

Fm dMHz:

XPA2 22-Oct-2024 1600z 13542kHz strong
00487 00150 01723..... 13154

XPA2 23-Oct-2024 0950z 14406kHz

06594 00090 82580 07203 48508 25071 57196 83008 67070 07514
58023 44124 59356 50094 91237 88458 11420 77804 20052 59716
94924 67739 41619 67296 52692 82611 23189 46252 95837 54123
70795 13826 45691 29018 03613 93917 63070 41889 95805 30188
24452 44391 17766 62467 98249 02166 49765 58805 32832 72671
33404 55012 63231 03023 11611 28914 18999 61763 22418 65485
91427 23805 36720 65700 71212 95912 63086 21561 59960 18619
97417 69517 82438 07916 11343 95015 64740 22228 78697 01087
54686 89642 11109 51179 70278 19916 61565 04376 92544 96581
08299 31374 41461 *Courtesy dMHz*

F01 & F06

1A F01 Mon 07.10.2024 1015Z 11129 FSK 200/500 6:48 via KiwiSDR RUS
Mon 07.10.2024 1025Z 9082 FSK 200/500 via KiwiSDR RUS
Mon 07.10.2024 1035Z 7344 FSK 200/500 via KiwiSDR RUS

F06 Fm dMHz

F06 23-Oct-2024 0915z 26185kHz FSK200/1000

11166 40023 74523 23001 00049 00000 00000 00000 00000

From H-FD

1B XPA2

Tue 03.09.2024 0500Z 10221 msg
Tue 03.09.2024 0520Z 11121 msg
Tue 03.09.2024 0540Z 12221 msg

Tue 03.09.2024 1100Z 13431 msg
Tue 03.09.2024 1120Z 12131 msg
Tue 03.09.2024 1140Z 11431 msg

Wed 04.09.2024 1800Z 16351 msg
Wed 04.09.2024 1820Z 14851 msg
Wed 04.09.2024 1840Z 13951 msg

Mon 09.09.2024 1500Z 14373 msg
Mon 09.09.2024 1520Z 13373 msg
Mon 09.09.2024 1540Z 11573 msg

Thu 12.09.2024 0910Z 15859 msg
Thu 12.09.2024 0930Z 14659 msg
Thu 12.09.2024 0950Z 13459 msg

Thu 12.09.2024 1100Z 16117 msg
Thu 12.09.2024 1120Z 14917 msg
Thu 12.09.2024 1140Z 13517 msg

Thu 19.09.2024 1600Z 13887 msg
Thu 19.09.2024 1620Z 13387 msg
Thu 19.09.2024 1640Z 11587 msg

1B XPA2

Tue 01.10.2024 1100Z 14537 msg
Tue 01.10.2024 1120Z 13437 msg
Tue 01.10.2024 1140Z 10737 msg

Thu 03.10.2024 1600Z 13542 msg
Thu 03.10.2024 1620Z 12142 msg
Thu 03.10.2024 1640Z 11442 msg

Fri 04.10.2024 1800Z 14518 msg
Fri 04.10.2024 1820Z 13418 msg
Fri 04.10.2024 1840Z 12218 msg

Sat 05.10.2024 0910Z 17438 msg
Sat 05.10.2024 0930Z 16338 msg
Sat 05.10.2024 0950Z 15938 msg

Sat 05.10.2024 1500Z 13906 msg
Sat 05.10.2024 1520Z 12106 msg
Sat 05.10.2024 1540Z 10906 msg

Mon 07.10.2024 0910Z 17476 msg
Mon 07.10.2024 0930Z 16149 msg
Mon 07.10.2024 0950Z 14406 msg

Thu 17.10.2024 1100Z 14672 msg
Thu 17.10.2024 1120Z 13472 msg
Thu 17.10.2024 1140Z 12172 msg

XPB1 Wednesday/Saturday

September 2024

13521kHz 1100z	04/09	Weak	4m29s	PLdn	WED
13421kHz 1110z	04/09	Weak	4m29s	PLdn	WED
12221kHz 1120z	04/09	Weak	4m29s	PLdn	WED
11521kHz 1130z	04/09	NRH		PLdn	WED
11021kHz 1140z	04/09	NRH		PLdn	WED
10521kHz 1150z	04/09	NRH		PLdn	WED
13521kHz 1100z	07/09	Fair	4m29s	PLdn	SAT
13421kHz 1110z	07/09	Fair	4m29s	PLdn	SAT
12221kHz 1120z	07/09	Weak	4m29s	PLdn	SAT
11521kHz 1130z	07/09	Weak	4m29s	PLdn	SAT
11021kHz 1140z	07/09	NRH		PLdn	SAT
10521kHz 1150z	07/09	NRH		PLdn	SAT
13521kHz 1100z	11/09	Weak	4m29s	PLdn	WED
13421kHz 1110z	11/09	Weak	4m29s	PLdn	WED
12221kHz 1120z	11/09	Weak	4m29s	PLdn	WED
11521kHz 1130z	11/09	Weak	4m29s	PLdn	WED
11021kHz 1140z	11/09	Weak	4m29s	PLdn	WED
10521kHz 1150z	11/09	Weak	4m29s	PLdn	WED
13521kHz 1100z	14/09	Weak	4m29s	PLdn	SAT
13421kHz 1110z	14/09	Weak	4m29s	PLdn	SAT
12221kHz 1120z	14/09	Weak	4m29s	PLdn	SAT
11521kHz 1130z	14/09	NRH		PLdn	SAT
11021kHz 1140z	14/09	Weak	4m29s	PLdn	SAT
10521kHz 1150z	14/09	Weak	4m29s	PLdn	SAT
13521kHz 1100z	18/09	Weak	2m50s	PLdn	WED
13421kHz 1110z	18/09	Weak	2m50s	PLdn	WED
12221kHz 1120z	18/09	Weak	2m50s	PLdn	WED
11521kHz 1130z	18/09	Weak	2m50s	PLdn	WED
11021kHz 1140z	18/09	NRH		PLdn	WED
10521kHz 1150z	18/09	NRH		PLdn	WED
13521kHz 1100z	21/09		Not monitored, Lightning	PLdn	SAT
13421kHz 1110z	21/09		Not monitored, Lightning	PLdn	SAT
12221kHz 1120z	21/09		Not monitored, Lightning	PLdn	SAT
11521kHz 1130z	21/09		Not monitored, Lightning	PLdn	SAT
11021kHz 1140z	21/09		Not monitored, Lightning	PLdn	SAT
10521kHz 1150z	21/09		Not monitored, Lightning	PLdn	SAT
13521kHz 1100z	25/09	Fair	4m30s QRM3	PLdn	WED
13421kHz 1110z	25/09	Fair	4m30s	PLdn	WED
12221kHz 1120z	25/09	Fair	4m30s	PLdn	WED
11521kHz 1130z	25/09	Weak	4m30s	PLdn	WED
11021kHz 1140z	25/09	MISSED		PLdn	WED
10521kHz 1150z	25/09	Weak	4m30s	PLdn	WED
13521kHz 1100z	28/09	Strong	4m30s	PLdn	SAT
13421kHz 1110z	28/09	Fair	4m30s	PLdn	SAT
12221kHz 1120z	28/09	Weak	4m30s	PLdn	SAT
11521kHz 1130z	28/09	Weak	4m30s	PLdn	SAT
11021kHz 1140z	28/09	MISSED		PLdn	SAT
10521kHz 1150z	28/09	Weak	4m30s	PLdn	SAT

October 2024

16245kHz 1100z	02/10	Fair	4m28s	PLdn	WED
15825kHz 1110z	02/10	Strong	4m28s	PLdn	WED
14925kHz 1120z	02/10	Fair	4m28s	PLdn	WED
13525kHz 1130z	02/10	Fair	4m28s	PLdn	WED
12125kHz 1140z	02/10	Weak	4m28s	PLdn	WED
11425kHz 1150z	02/10	Weak	4m28s	PLdn	WED
16245kHz 1100z	05/10	Strong	4m28s QRM3	PLdn	SAT
15825kHz 1110z	05/10	Strong	4m28s	PLdn	SAT
14925kHz 1120z	05/10	Strong	4m28s	PLdn	SAT
13525kHz 1130z	05/10	Strong	4m28s QRM2	PLdn	SAT
12125kHz 1140z	05/10	Weak	4m28s	PLdn	SAT
11425kHz 1150z	05/10	Weak	4m28s	PLdn	SAT
16245kHz 1100z	09/10	Strong	4m28s	PLdn	WED
15825kHz 1110z	09/10	Strong	4m28s	PLdn	WED
14925kHz 1120z	09/10	Fair	4m28s	PLdn	WED
13525kHz 1130z	09/10	Fair	4m28s	PLdn	WED
12125kHz 1140z	09/10	Weak	4m28s	PLdn	WED

11425kHz 1150z	09/10	Weak	4m28s	PLdn	WED
16245kHz 1100z	12/10		Not Monitored	PLdn	SAT
15825kHz 1110z	12/10		Not Monitored	PLdn	SAT
14925kHz 1120z	12/10		Not Monitored	PLdn	SAT
13525kHz 1130z	12/10		Not Monitored	PLdn	SAT
12125kHz 1140z	12/10		Not Monitored	PLdn	SAT
11425kHz 1150z	12/10		Not Monitored	PLdn	SAT
16245kHz 1100z	16/10	Weak	4m28s	PLdn	WED
15825kHz 1110z	16/10	Fair	4m28s	PLdn	WED
14925kHz 1120z	16/10	Weak	4m28s	PLdn	WED
13525kHz 1130z	16/10	Weak	4m28s	PLdn	WED
12125kHz 1140z	16/10	Weak	4m28s	PLdn	WED
11425kHz 1150z	16/10	Weak	4m28s	PLdn	WED
16245kHz 1100z	19/10	Weak	4m28s	PLdn	SAT
15825kHz 1110z	19/10	Weak	4m28s	PLdn	SAT
14925kHz 1120z	19/10	Weak	4m28s	PLdn	SAT
13525kHz 1130z	19/10	Weak	4m28s	PLdn	SAT
12125kHz 1140z	19/10	Weak	4m28s	PLdn	SAT
11425kHz 1150z	19/10	Weak	4m28s	PLdn	SAT
16245kHz 1100z	23/10	Fair	4m28s	PLdn	WED
15825kHz 1110z	23/10	Fair	4m28s	PLdn	WED
14925kHz 1120z	23/10	Fair	4m28s	PLdn	WED
13525kHz 1130z	23/10	Fair	4m28s	PLdn	WED
12125kHz 1140z	23/10	Fair	4m28s	PLdn	WED
11425kHz 1150z	23/10	Weak	4m28s	PLdn	WED
16245kHz 1100z	26/10	Fair	4m28s	PLdn	SAT
15825kHz 1110z	26/10	Fair	4m28s	PLdn	SAT
14925kHz 1120z	26/10	Fair	4m28s	PLdn	SAT
13525kHz 1130z	26/10	Fair	4m28s	PLdn	SAT
12125kHz 1140z	26/10	Fair	4m28s	PLdn	SAT
11425kHz 1150z	26/10	Weak	4m28s	PLdn	SAT
16245kHz 1100z	30/10	Weak	1m40s	PLdn	WED
15825kHz 1110z	30/10	Weak	1m40s	PLdn	WED
14925kHz 1120z	30/10	Weak	1m40s	PLdn	WED
13525kHz 1130z	30/10	Weak	1m40s	PLdn	WED
12125kHz 1140z	30/10	Weak	1m40s	PLdn	WED
11425kHz 1150z	30/10	NRH		PLdn	WED

Other XPB1 H-FD

1B XPB1

Tue 03.09.2024 0500Z 19668 MFSK-16 4:29 x13435
Tue 03.09.2024 0510Z 19268 MFSK-16 x13935
Tue 03.09.2024 0520Z 18268 MFSK-16 x14435
Tue 03.09.2024 0530Z 17468 MFSK-16 x14835
Tue 03.09.2024 0540Z 16268 MFSK-16 x15935
Tue 03.09.2024 0550Z 15868 MFSK-16 x16225

Mon 23.09.2024 1300Z 20017 MFSK-16 4:30
Mon 23.09.2024 1310Z 19317 MFSK-16
Mon 23.09.2024 1320Z 18037 MFSK-16
Mon 23.09.2024 1330Z 17417 MFSK-16
Mon 23.09.2024 1340Z 16217 MFSK-16
Mon 23.09.2024 1350Z 15817 MFSK-16

1B XPB1

Mont 07.10.1020 0540Z 16244 MFSK-16 x17471
Mon 07.10.2024 0500Z 19544 MFSK-16 x13471
Mon 07.10.2024 0510Z 19044 MFSK-16 x14771
Mon 07.10.2024 0530Z 17444 MFSK-16 x16271
Mon 07.10.2024 0550Z 15844 MFSK-16 x18271

Thu 17.10.2024 1330Z 17475 MFSK-16

Fri 18.10.2024 1300Z 20075 MFSK-16 4:30
Fri 18.10.2024 1310Z 19575 MFSK-16
Fri 18.10.2024 1310Z 18175 MFSK-16
Fri 18.10.2024 1340Z 16275 MFSK-16
Fri 18.10.2024 1350Z 14975 MFSK-16

HM01 Hybrid

Nil Report ; see Editorial

X06 Mazielka (1c) logs section

Date	Day	UTC	Freq	Scale	Monitor	Comments
20240903	Tue	0830-0835	15687	154263	Andrew/SE	Alert2 (TX to Rome, G7) 1
20240903	Tue	0835-0836	13401	154263	Andrew	2.2
20240903	Tue	1231	18037	1--6--	Schorschi	X06b
20240904	Wed	1228-1237	19878	231654	Dave/AU	TX to Abuja, G422
20240904	Wed	1558-1559	12186	214356	RadiotehnikaT	TX to Amman, G24
20240906	Fri	0826-0828	16219	324615	Dave	TX to Madrid, G52
20240908	Sun	1116-1124	14865	261453	Ary, Andrew	TX to Cairo, G138
20240909	Mon	0856-0904	17475	156234	Dave, Ary	TX to Kampala, G68
20240909	Mon	0921-0930	19235	463125	Ary, Dave	TX to Rabat, G77
20240910	Tue	0757	17473	1--6--	Andrew	X06b
20240910	Tue	0802	17434	1--6--	Andrew	X06b
20240910	Tue	0823	17419	1--6--	Andrew	X06b
20240910	Tue	0825	17427	1--6--	Andrew	X06b
20240910	Tue	0847	17424	1--6--	Andrew	X06b
20240910	Tue	1003-1008	17520	612534	Andrew	Alert2 (TX to Ashgabat, G89) 1
20240910	Tue	1009-1011	20813	216354	Andrew	TX to Chennai, G388(1)
20240910	Tue	1016	16317	612534	Anon03344	2.2
20240910	Tue	1207	13387	1--6--	Andrew	X06b
20240910	Tue	1211	16272	1--6--	Andrew	X06b
20240910	Tue	1219	10258	1--6--	Andrew	X06b
20240910	Tue	1406	18208	1--6--	RadiotehnikaT	X06b
20240910	Tue	1615-1647	18513	1--6--	Anon39689	Very long X06b
20240913	Fri	0815	14863	615243	Schorschi	TX to Geneva, G127
20240913	Fri	1240	19610	216435	RadiotehnikaT	TX to Dakha, G439
20240916	Mon	0750-0757	12152	432516	Andrew	TX to Bern, G341
20240916	Mon	0810-0813	11438	532614	Andrew	TX to Paris, G147
20240917	Tue	0829-1000	14358	154263	Dave	Vy long TX to Rome, G148(2)
20240917	Tue	0840-0843	17454	325614	Andrew	TX to Nairobi, G400
20240918	Wed	0640-0642	13838	256341	Dave	TX to Beirut, G169
20240918	Wed	1605	12186	214356	Shortwavemills	TX to Amman, G394
20240919	Thu	0719-0720	21825	314265	Andrew	TX to Antananarivo, G178
20240919	Thu	1332-1334	20627	436512	Dave	TX to Harare, G180
20240922	Sun	0935-0942	14865	261453	Andrew	TX to Cairo, G285
20240923	Mon	0828	17475	156234	Anon11537	TX to Kampala, G203
20240923	Mon	0927	16117	463125	Ary	TX to Rabat, G222
20240923	Mon	1227	18260	123456	Ary	X06c
20240924	Tue	0806-0812	13420	534216	Ary, Andrew	TX to Bagdad, G232
20240924	Tue	1009-1012	20813	216354	Andrew	TX to Chennai, G228
20240925	Wed	0759-0819	18177	164253	Ary, Dave	TX to Addis ababa, G402
20240925	Wed	0810-0813	11153	465132	Ary, Dave	TX to Sofia, G246
20240925	Wed	0852-0854	13985	134265	Dave	Alert2 (TX to Tunis, G90) 1
20240925	Wed	0854-0901	16116	134265	Dave	2.2
20240926	Thu	0806-0808	14550	153624	Andrew	TX to Damascus, G249
20240926	Thu	1010	18250	131312	Ary	X06b
20240926	Thu	1023-1051	18250	161624	Dave	Very long X06b test
20240927	Fri	1001-1019	17463	256134	Anon27565	Alert2 (TX to Abidjan, G270) 1
20240927	Fri	1020	19611	256134	Anon10042	2.2
20240927	Fri	1409-1416	19611	256134	Ary, RadiotehnikaT	Alert2 (TX to Abidjan, G270) 1

```
20240927 Fri 1415-1423 17463 256134 Ary,
                                    RadiotehnikaT  2.2
20240930 Mon 1133-1138 13950 121265 Anon22031      X06b(4)
20241001 Tue 0838-0848 13401 154263 Andrew         TX to Rome, G7
20241002 Wed 1239      20374 231654 Dave,Anon36989 TX to Abuja, shortie, G422
20241002 Wed 1548-1551 14501 214356 Eddy/AU        TX to Amman, G24
20241003 Thu 0920-0927 18197 645321 Andrew         TX to Ho Chi Minh City, G410
20241003 Thu 1312-1318 19405 352416 Anon23724      TX to Dar es Salaam, G43
20241004 Fri 1000-1002 16161 2-4616 Anon05898      X06b
20241007 Mon 0737-0748 14377 432516 Andrew         TX to Bern, G6
20241007 Mon 0950-1012 12450 6-1-6- Ary            X06b
20241007 Mon 1013-1028 13450 6-1-6- Ary            X06b, moved from 12450 kHz
20241007 Mon 1031-1041 13450 6-1-6- Ary            X06b(5)
20241007 Mon 1056-1121 13450 6-1-6- Ary            X06b
20241007 Mon 1124-1305 12450 6-1-6- Ary            Very long final X06b
20241008 Tue 0757-0802 10767 534216 Dave           TX to Bagdad, G87
20241009 Wed 0728-0731 11483 412356 Dave           TX to Budapest, G97
20241009 Wed 0815-0816 11153 465132 Dave           TX to Sofia, G100
20241011 Fri 0847-0849 12177 356412 Andrew         TX to Berlin, G126
20241013 Sun 0823      16060 261453 Andrew         TX to Cairo, G138
20241014 Mon 0815-0820 17475 156234 Andrew         TX to Kampala, G68
20241016 Wed 1114-1120 16115 215346 Andrew         TX to Mumbai, G167
20241016 Wed 1234-1237 17506 231654 Anon52450      TX to Abuja, G423
20241017 Thu 0750-0752 17534 351264 Ary, Dave      TX to Abu Dhabi, G434
20241017 Thu 1119-1124 18250 161-6- Scarach        X06b
20241017 Thu 1134-1143 19250 161-6- RadiotehnikaT  X06b
20241017 Thu 1215-1218 19511 314265 Andrew         TX to Antananarivo, G178(6)
20241018 Fri 0826-0832 13954 213546 Ary, Dave      TX to Islamabad, G390
20241021 Mon 0644-0649 13452 165324 Ary, Anon13928 TX to Vienna, G145(7)
20241021 Mon 0744-0750 12152 432516 Ary, Andrew    TX to Bern, G341
20241022 Tue 0801-0806 17523 542136 Dave           TX to Beijing, G88
20241022 Tue 0811-0814 11545 534216 Andrew         TX to Bagdad, G232
20241022 Tue 1009-1011 17470 216354 Dave           TX to Chennai, G228
20241023 Wed 0742-0747 11483 412356 Ary, Dave      TX to Budapest, G243
20241023 Wed 0824-0825 11153 465132 Ary, Dave      TX to Sofia, G246(8)
20241028 Mon 0740-1043 12100 123456 Ary, Kopf,
                                    Andrew         X06c i. p., strong and very long
20241028 Mon 0931-0936 16117 463125 Andrew, Eddy   TX to Rabat, G222
```

1) 1012 UTC: serdo FSK
2) From 0825-0828 UTC: MFSK-66
3) 0819, 0825 and 0830-31 UTC: M42 Serdolik v2
4) Rare sequence, started about an hour previously
5) Break between 1031 and 1032 UTC
6) 1209-1212 UTC: MFSK-66
7) 0649 UTC: MFSK-66
8) 0823 UTC: Serdo v2

Many thanks to all contributors as usual. Till the next EN issue I say: Good-bye, and please stay healthy!

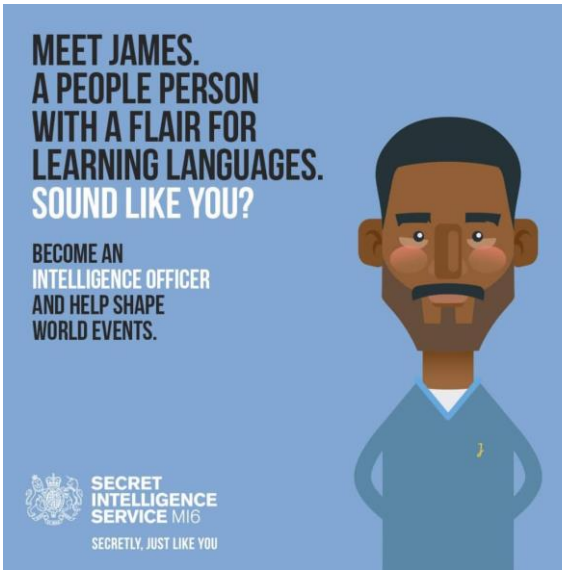
Jochen Schäfer, Numbers-, X06 Database and Teamkopf

Thank you to all our contributors

Giv' us a Job!


IT'S NOT JUST WATCHING CCTV...
IT'S WATCHING OUT FOR EVERYONE WHO WORKS HERE.
SECURITY OFFICERS AT MI5
SECURITYSERVICE MI5
WORTH A CLOSER LOOK


MEET PETE.
A CREATIVE THINKER WITH A KNACK FOR SOLVING PROBLEMS.
SOUND LIKE YOU?
BECOME AN INTELLIGENCE OFFICER AND HELP SHAPE WORLD EVENTS.
SECRET INTELLIGENCE SERVICE MI6
SECRETLY, JUST LIKE YOU


MEET JAMES.
A PEOPLE PERSON WITH A FLAIR FOR LEARNING LANGUAGES.
SOUND LIKE YOU?
BECOME AN INTELLIGENCE OFFICER AND HELP SHAPE WORLD EVENTS.
SECRET INTELLIGENCE SERVICE MI6
SECRETLY, JUST LIKE YOU


MEET NAT.
PERCEPTIVE. CURIOUS. AND A NATURAL AT BUILDING RELATIONSHIPS.
SOUND LIKE YOU?
BECOME AN INTELLIGENCE OFFICER AND HELP SHAPE WORLD EVENTS.
SECRET INTELLIGENCE SERVICE MI6
SECRETLY, JUST LIKE YOU

Image of Plaque erected at site of the 'Bridge over the River Kwae' where allied prisoners of war were used as slave labour by Imperial Japanese Forces

Plaque erected by the Kanchanaburi Municipality of Thailand in Remembrance of those souls who perished and whose remains are interred in the War Graves nearby

Chart Section Index

Predictions

M01 Schedule

Family III

Polytones, XPA1, XPA2

En145

November 2024

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Nov kHz, ID, ...	Dec kHz, ID, ...
x		x					0315		E11	03	x8456 25# **search**	x8456 25#
x	x	x	x	x	x	x	0400		V13	0	11430	11430
x	x	x	x	x			0400/0420		S06	01A	11616/ 9322 480	11616/ 9322 480
	x		x				0445		S11A	03	11559 79#	11559 79#
x							0450		E11	03	4909 41# **check**	4909 41#
x	x	x	x	x	x	x	0455		HM01	18	10860	10860
x	x	x	x	x	x	x	0500		V13	0	11430	15388
x	x	x	x	x			0500/0520		M14	01A	12211/10243 952	12211/10243 952
	x		x				0505		E11	03	12153 33#	12153 33#
x		x					0510		S11A	03	**21906** 65#	21906 65#
	x			x			0530		M01A	14	9441 751	9441 751
		x	x				0530		M01A	14	9129 or 9192 498	9129 or 9192 498
		x	x				0540		M01A	14	7692 536	7692 536
x	x	x	x	x	x	x	0555		HM01	18	10345	10345
x		x					0600		E11	03	23004 94#	23004 94#
				x		x	0600		E11	03	7850 35#	7850 35#
x	x	x	x	x	x	x	0600		V13	0	11430	15388
x	x						0600/0610/0620 0630/0640/0650		XPB1	01B	13446/14446/14946 15846/16146/17446 **search**	12118/13418/13918 14418/14918/15918 **search**
	x		x				0600/0620/0640		XPA2	01B	11162/12162/13962 **check**	9281/10481/11481
			x	x			0600/0700	1/3	E06	01B	18285/20140 507	14575/17420 923
	x			x			0620		M01A	14	10233 or 10235 354/458	10233 or 10235 354/458
		x	x				0620		M01A	14	9421 135	9421 135
	x			x			0630		M01A	14	9447 143/796	9447 143/796
		x	x				0630		M01A	14	8111 902/536	8111 902/536
	x		x				0645		E11	03	7840 51#	7840 51#
x	x	x	x	x	x	x	0655		HM01	18	13435	13435
x			x				0700		S11A	03	9050 47#	9050 47#
	x			x			0700		E11	03	6804 57#	6804 57#
					x	x	0700		E11	03	5371 49#	5371 49#
x	x	x	x	x	x	x	0700		V13	0	15250	18040

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Nov kHz, ID, ...	Dec kHz, ID, ...
						x	0700		M01	01B	5465 197	5465 197
	x			x			0710		M01A	14	10651 297/358	10651 297/358
		x	x				0710		M01A	14	9175 146/208	9175 146/208
x		x					0715		E11	03	**x11104** 75# **search**	x11104 75#
	x			x			0715		E11	03	14975 63#	14975 63#
					x	x	0715		M01	14	9566 475	9566 475
	x			x			0720		M01A	14	9151 728	9151 728
		x		x			0725		S11A	03	23486 38#	23486 38#
						x	0730/0800		E06 S06	01A		9463/7377 480
x							0745		E11	03	10213 26#	10213 26#
	x		x				0745		E11	03	13908 22#	13908 22#
		x		x			0745		E11	03	17378 34#	17378 34#
x	x	x	x	x	x	x	0800		V13	0	15250	18040
		x					0800/0820/0840		XPA2	01B	11529/13429/13929	11493/13393/13993
	x	x					0820		E11	03	14611 13#	14611 13#
			x	x			0820		E11	03	6986 43# **check**	6986 43#
x				x			0830		E11	03	23353 18#	23353 18#
					x	x	0830		S11A	03	5371 37#	5371 37#
x		x					0845		E11	03	12067 71#	12067 71#
	x		x				0845		E11	03	13046 15#	17378 15#
x		x					0900		E11	03	15915 53#	15915 53#
x		x					0910/0930/0950		XPA2	01B	17413/15852/13363	13562/11583/10281
			x		x		0910/0930/0950		XPA2	01B	15985/14885/13885	13919/11519/10719
x				x			0915		S11A	03	6252 48#	6252 48#
		x	x				0930		E11	03	7469 27#	7469 27#
x	x	x	x	x	x	x	0930		M14	01A	17458 10.&25. 15994 11.&26. when msg	17458 10.&25. 15994 11.&26. when msg
		x					0930/1030		S06	01A		9463/ 9073 480
	x			x			1000		E11	03	9079 30#	9079 30#
x	x	x	x	x	x	x	1000		V13	0		
	x	x	x	x			1015/1025/1035		F01	01A	12177/10671/ 8024	12164/10336/ 8016

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Nov kHz, ID, ...	Dec kHz, ID, ...
x		x					1045		E11	03	**x11100** 69# **search**	x11100 69#
	x						1100/1120/1140		M12	01B	11519/12194/13407 289	11519/12194/13407 289
	x			x			1100/1120/1140		XPA2	01B	10653/ 9353/ 8153	9265/ 8165/ 7665
		x	x				1100/1120/1140		XPA2	01B	13393/12193/11093	11579/10979/10279
x	x	x	x	x	x	x	1200		V13	0	9276/13974	7688/13974
		x			x		1200/1210/1210 1230/1240/1250		XPB1	01B	16353/15953/14953 13453/12153/11453	14978/13978/13378 12178/11078/10278
		x		x			1200/1220/1240		XPA2	01B	13968/15968/17468	14841/16241/18241
	x	x					1205		E11	03	11559 46#	11559 46#
x			x				1300		E11	03	4909 31#	4909 31#
x	x	x	x	x	x	x	1300		V13	0	7688/11430	7688/11430
	x			x			1300/1310/1310 1330/1340/1350		XPB1	01B	20021/19521/18421 17421/16321/15921	20044/19344/18544 17444/16244/14944
		x		x			1310/1330/1350		XPA1	01B	13875/13375/10875 838	13465/12165/10265 412
	x	x	x				1325/1425 sporadic		S06	01A	**search**	**search**
	x			x			1400		S11A	03	10448 42#	10448 42#
			x		x		1410/1430/1450		E07	01B	11574/10274/ 9274 327	10226/ 9226/ 8126 674
	x				x		1430		E11	03	13363 91#	13363 91#
					x		1500		M01	14	5810 197	5810 197
	x	x	x				1500/1600 sporadic		S06	01A	13397/ 9194 387	**search**
	x			x			1500/1520/1540		E07	01B	14737/13537/12137 751	13539/12139/10239 512
			x				1530		E11	03	5409 26#	5409 26#
					x		1600/1620/1640		XPA2	01B	8126/ 6826/ 5326	6984/ 5884/ 4784
	x		x				1600/1620/1640		XPA2	01B	10223/ 9223/ 8123	8184/ 7864/ 6784
					x		1600/1630		E06 S06	01A		6792/ 5380 480
	x					x	1605		E11	03	5432 23#	5432 23#
		x			x		1610		E11	03	4505 39#	4505 39#
					x	x	1645		E11	03	4909 36#	4909 36#
		x		x			1715		E11	03	5082 97#	5082 97#
			x				1730		E11	03	5779 41# **check**	5779 41#
x						x	1745		E11	03	12924 24#	12924 24#
	x		x				1800		M01	14	5320 197	5320 197

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Nov kHz, ID, ...	Dec kHz, ID, ...
			x				1800/1820/1840		M12	01B	11435/10598/ 9327 938	11435/10598/ 9327 938
				x		x	1815		E11	03	6849 92#	6849 92#
		x			x		1850		S11A	03	11486 28#	11486 28#
x			x				1900		E11	03	6849 64#	6849 64#
		x					1900/1920/1940		M12	01B	8047/ 6802/ 5788 463	8047/ 6802/ 5788 463
				x			1900/2000	1/3	S06	01A	7923/ 5943 842	
				x		x	1910		E11	03	10487 61#	10487 61#
	x			x			1940/1950/2000	1	F01	01A	8172/ 6791/ 4546 **check**	7684/ 5326/ 4029
			x			x	2000		E11	03	5082 52#	5082 52#

M01 FREQUENCY LIST

Frequencies may vary by a few kHz

JAN FEB NOV DEC M01/1 197

DAY	TIME UTC	FREQ kHz
TUE / THU	1800	5320
TUE / THU	2000	4490
SAT	1500	5810
SUN	0700	5465

MAR APRIL SEPT OCT M01/2 463

DAY	TIME UTC	FREQ kHz
TUE / THU	1800	5475
TUE / THU	2000	5020
SAT	1500	6260
SUN	0700	6510

MAY JUNE JULY AUG M01/3 025

DAY	TIME UTC	FREQ kHz
TUE / THU	1800	5280
TUE / THU	2000	4905
SAT	1500	6435
SUN	0700	6780

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID, ...	Oct kHz, ID, ...	Nov kHz, ID, ...	Dec kHz, ID, ...	Remarks
x		x					0315		E11	03	11420 25#	11420 25#	x8456 25# **search**	x8456 25#	since 01/14, last log 10/24
	x		x				0445		S11A	03	10728 79#	10728 79#	11559 79#	11559 79#	since 05/22, last log 10/24
x							0450		E11	03	**12385** 41#	12385 41#	4909 41# **check**	4909 41#	since 02/10, last log 10/24 2nd transmission Thu 1730z
	x		x				0505		E11	03			12153 33#	12153 33#	since 10/11, last log 02/24 Mar/Apr/Sep/Oct at 1230z, Mai-Aug at 1645z
x		x					0510		S11A	03	23004 65#	23004 65#	**21906** 65#	21906 65#	since 08/19, last log 10/24
x		x					0600		E11	03	19515 94#	19515 94#	23004 94#	23004 94#	since 07/17, last log 10/24
				x		x	0600		E11	03	8680 35#	8680 35#	7850 35#	7850 35#	since 04/15, last log 10/24
	x		x				0645		E11	03	8423 51#	8423 51#	7840 51#	7840 51#	since 07/09, last log 10/24
x			x				0700		S11A	03	8597 47#	8597 47#	9050 47#	9050 47#	since 04/10, last log 10/24
	x			x			0700		E11	03	8180 57#	8180 57#	6804 57#	6804 57#	since 01/12, last log 10/24
					x	x	0700		E11	03	9079 49#	9079 49#	5371 49#	5371 49#	since 07/15, last log 10/24
x		x					0715		E11	03	19515 75#	19515 75#	**x11104** 75# **search**	x11104 75#	since 06/21, last log 10/24
	x			x			0715		E11	03	15720 63#	15720 63#	14975 63#	14975 63#	since 02/11, last log 10/24
		x		x			0725		S11A	03	21854 38#	21854 38#	23486 38#	23486 38#	since 05/14, last log 10/24
x							0745		E11	03	10213 26#	10213 26#	10213 26#	10213 26#	since 03/14, last log 10/24 2nd transmission Thu 1530z
	x		x				0745		E11	03	14865 22#	14865 22#	13908 22#	13908 22#	since 01/20, last log 10/24
		x		x			0745		E11	03	17410 34#	17410 34#	17378 34#	17378 34#	since 06/17, last log 10/24
	x	x					0820		E11	03	19184 13#	19184 13#	14611 13#	14611 13#	since 12/18, last log 10/24
			x	x			0820		E11	03	**9150** 43#	9150 43#	6986 43# **check**	6986 43#	since 10/09, last log 10/24
x				x			0830		E11	03	20170 18#	20170 18#	23353 18#	23353 18#	since 07/15, last log 10/24
					x	x	0830		S11A	03	6433 37#, check	6433 37#	5371 37#	5371 37#	since 02/14, last log 10/24
x		x					0845		E11	03	12202 71#	12202 71#	12067 71#	12067 71#	since 09/10, last log 10/24
	x		x				0845		E11	03	18168 15#	18168 15#	13046 15#	17378 15#	since 07/17, last log 10/24
x		x					0900		E11	03	13117 53#	13117 53#	15915 53#	15915 53#	since 10/05, last log 10/24
x				x			0915		S11A	03	6480 48#	6480 48#	6252 48#	6252 48#	since 04/19, last log 10/24
		x	x				0930		E11	03	6940 27#	6940 27#	7469 27#	7469 27#	since 02/14, last log 10/24
	x			x			1000		E11	03	9951 30#	9951 30#	9079 30#	9079 30#	since 11/16, last log 10/24
x		x					1045		E11	03	12385 69#	12385 69#	**x11100** 69# **search**	x11100 69#	since 03/18, last log 10/24
	x	x					1205		E11	03	9399 46#	9399 46#	11559 46#	11559 46#	since 03/10, last log 10/24 2nd transmission Mon 0450z
	x		x				1230		E11	03	12530 33#	12530 33#			since 10/11, last log 10/24 May-Aug at 1645z, Nov-Feb at 0505z
x			x				1300		E11	03	5371 31#	5371 31#	4909 31#	4909 31#	since 07/14, last log 10/24
	x			x			1400		S11A	03	11420 42#	11420 42#	10448 42#	10448 42#	since 02/10, last log 10/24
	x				x		1430		E11	03	14972 91#	14972 91#	13363 91#	13363 91#	since 10/15, last log 10/24
			x				1530		E11	03	10330 26#	10330 26#	5409 26#	5409 26#	since 06/14, last log 10/24 2nd transmission Mon 0745z
	x					x	1605		E11	03	5176 23#	5176 23#	5432 23#	5432 23#	since 11/15, last log 10/24
		x			x		1610		E11	03	4181 39#	4181 39#	4505 39#	4505 39#	since 02/14, last log 10/24
	x		x				1645		E11	03					since 10/11, last log 08/24 Mar/Apr/Sep/Oct at 1230z, Nov-Feb at 0505z
					x	x	1645		E11	03	4505 36#	4505 36#	4909 36#	4909 36#	since 03/14, last log 10/24 2nd transmission Thu 1530z
		x		x			1715		E11	03	6923 97#	6923 97#	5082 97#	5082 97#	since 02/15, last log 10/24
			x				1730		E11	03	**12385** 41#	12385 41#	5779 41# **check**	5779 41#	since 03/10, last log 10/24 2nd transmission Mon 0450z
x						x	1745		E11	03	13470 24#	13470 24#	12924 24#	12924 24#	since 04/18, last log 10/24
				x		x	1815		E11	03	11116 92#	11116 92#	6849 92#	6849 92#	since 05/16, last log 10/24
		x			x		1850		S11A	03	10213 28#	10213 28#	11486 28#	11486 28#	since 06/17, last log 10/24
x			x				1900		E11	03	7317 64#	7317 64#	6849 64#	6849 64#	since 05/16, last log 10/24
				x		x	1910		E11	03	8530 61#	8530 61#	10487 61#	10487 61#	since 04/17, last log 10/24
			x			x	2000		E11	03	5737 52#	5737 52#	5082 52#	5082 52#	since 05/15, last log 10/24

XPA1 Wednesday/Friday schedule

Zulu > / Month v	XPA1 Wed/Fri Schedule H+10 H+30 H+50 1210 / 1310z		
Jan	14852	13952	11552
Feb	14374	13374	11474
Mar	14451	13451	12151
Apr	13368	12168	11168
May	13419	12219	11419
June	13545	12145	11145
July	13368	12168	11168
Aug	13491	12191	10691
Sept	12137	11137	10237
Oct	14564	13564	11464
Nov	13875	13375	10875
Dec	13465	12165	10265

XPA2 p Schedule [Mon/Wed]

Zulu > / Month v	XPA2 Sched p Monday/Wednesday H 00 H+20 H+40 0700 / 0800z		
Jan	11493	13393	13993
Feb	13387	13887	14787
Mar	13931	14831	16131
Apr	11409	12209	13409
May	12148	13448	13948
June	12148	13448	13948
July	12148	13448	13948
Aug	12152	13552	13952
Sept	12152	13552	13952
Oct	13372	14672	15872
Nov	11529	13429	13929
Dec	11493	13393	13993

SPECIAL MATTERS

Thanks to all our contributors:

'E' Thanks for what you have sent. Merry Christmas and a good New Year for you and yours.

RELEVANT WEBSITES

ENIGMA 2000 Website:	http://www.enigma2000.org
Mystery Signals	http://www.mysterysignals.signalshed.com/
Time zone information:	http://www.timeanddate.com/library/abbreviations/timezones/
Encyclopedia of Espionage, Intelligence, and Security	http://www.espionageinfo.com/