

ENIGMA 2000 NEWSLETTER



<http://www.enigma2000.org>



Russian Embassy Berlin

Note antennas on roof: Vertical, VGDSH cage dipole and Discone.

Thanks: Contributing Member.

ISSUE 136
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<http://www.enigma2000.org>

Editorial

Propagation is well up for the upper HF Bands for the last couple of months with solar activity such that allegedly the Northern Lights have been seen in the Midland and on 26/02, Cornwall. A mate of mine, 14 years older than me, said he'd seen them in North London but to be honest I had to question whether he had been crushing up his BP pills, Water tablets, Statins and Tramadol and taking them up his nose. But, good propagation is still in the offing it seems for this, Cycle 25. On 24/03 indeces were A60 K6 HF predictions fm 80 to 10M were poor and notably the usually strong XPA2 Wed/Fri schedule was much reduced to weak/NRH. Posting the 1500z E07 Tues/Fri schedule heard by M8 via Dutch SDR [NRH with PLdn] Malc noted:: A severe magnetic storm hit the earth March 23-24 the most intense for almost 6 years Good time to see the Northern Lights.... Very poor conditions on the H/F.

Mind you, on 24th April the solar predictions were very poor; my following of the NRC at Bletchley Park indicated problems but the values seen on respective sites indicated why: SFI 135, SN 77, A66 K6 meant poor propagation from 80 to 10M

The usual number stations are being heard although we're not seeing reports on the Cuban stuff. Anybody?

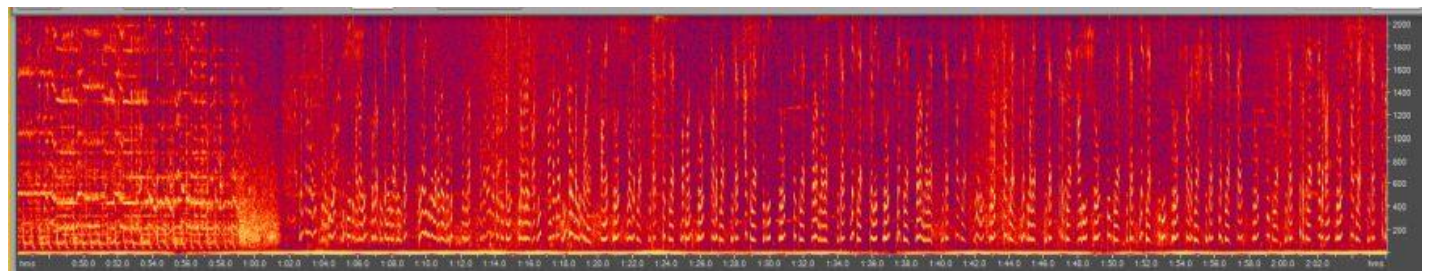
Whilst listening for E07 Tue/Fri 1500z schedule an UNID on 17460kHz was discovered as it splattered into the E07 118grp message. It was thought to be Slavic mx + what sounded as numerals[?] unknown language. The station was identified by Ary as Radio Denge-Welat that serves Kurdistan. Listening to the content it sounds most patriotic. The language used is Kurmanji, Radyo denge-welat translates to "Country Radio."

However during the 1540z serving of E07 I adjusted frequency when I noticed the mx and speech had changed to what sounded like message groups. Looking into the Kurdish offerings for numerals I was surprised to see in one form the written style followed the expected written Arabic form. Not so lucky with the pronunciation though:

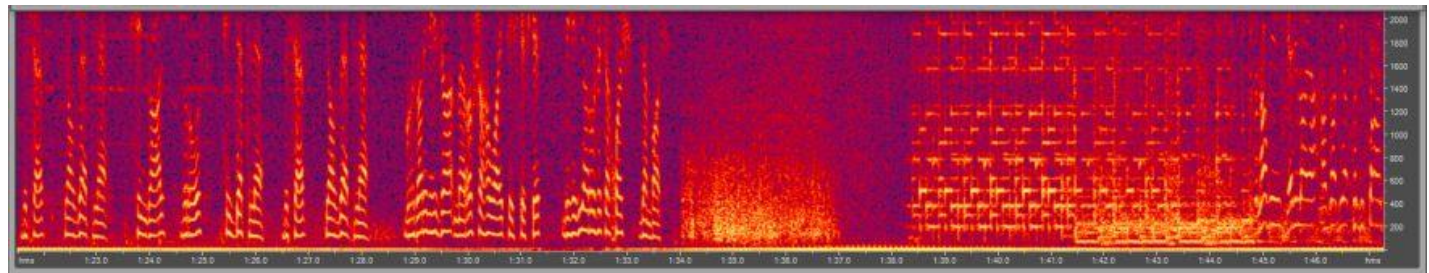
0 - Sifer 1 – yek 2 – du 3 – sê 4 – çar 5 – pênc 6 – şeş 7 – heft 8 – heşt 9 – neh 10 – deh

It seems this station, as Ary states, is sometimes jammed by Turkey – there is mention of this on the net too. It appears there are a number of frequencies it has used, apparently transmitted from France: 11530, 11540, 15175 and 17460kHz.

The Mx heard was a sort of balalaika form. A sudden change of content brought a message form style as can be seen here:



End of Mx/speech Message style commences.....



..... Message style ends Repetitive tones strummed and into speech.....

Radio Denge-Welat has a website: <http://www.denge-welat.org/> which does not easily convert to English. I'll be taking my recordings down to my local 'Turks' where I used to meet MalcF for our nefarious number stuff or perhaps the nearby Kebab shop for a quick translation. [Recordings available E2k grp site]. Msg heard next day also and lasted 1550z to 1554z.

It's worth noting that in the past certain BC Stations have carried messages in a variety of forms; New Star springs to mind but so does Radio Moscow where the opening few bars transmitted on one particular freq and day of week/particular month instructed their 'agent' to clear a certain DLB. One such person was ex-DS John Symonds who fled Britain as Op Countryman closed in on him. Given Turkish jamming perhaps this message content is important to someone, somewhere.

The next day 22/03 I tuned up on 17460kHz to find it still sending and at reasonable signal strength as well. No message format as yet but who knows?

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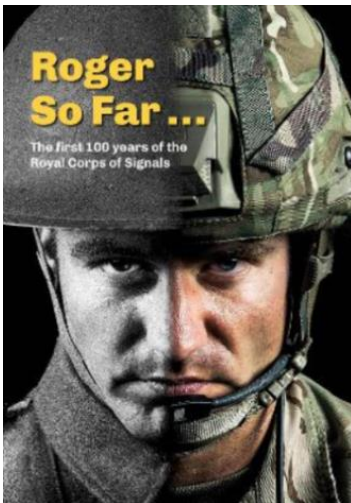
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Recommended reading



I had seen this book around Christmas but at £30 decided against purchase. A recent drive to sell at £8.50 from Royal Sigs Museum shop prompted me to buy. It's a spiffing book with detail about stuff I had once used. In addition there's sections on Crypto methods and usage.

Then there's a section on certain places I have been as well as at least three other members. It's a good buy at the reduced price.

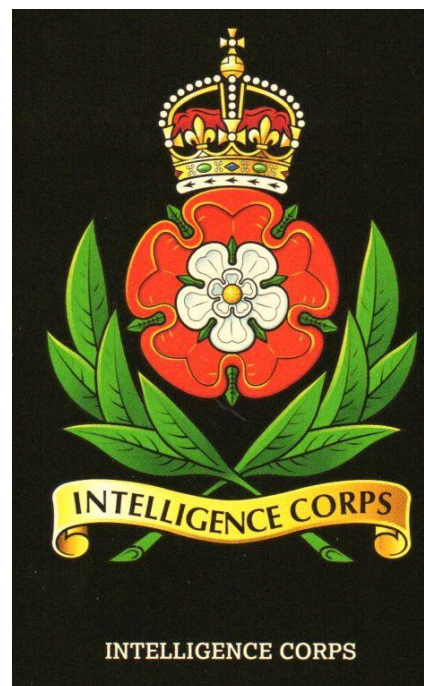
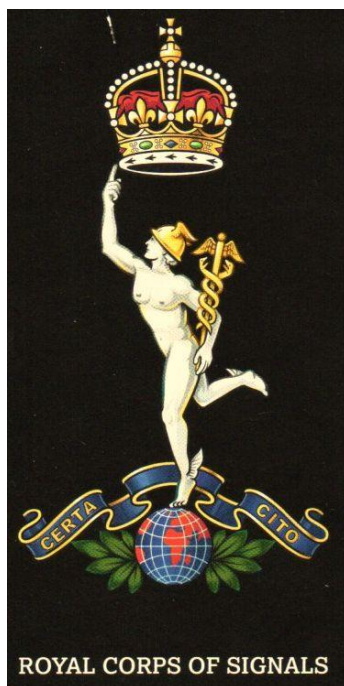
The official centenary book for the Corps of Royal Signals. Communications have always been, and are still a vital part of the Army's fighting power. Only with clear and trusted communications can commanders support, control, and lead their units and soldiers.

The evolution of electrical communications in the last 150 years has been one of the most important developments humanity has ever witnessed. As the advantages that from ever more complex equipment became apparent the need for a technical arm of the Army, who specialised in communication systems, became apparent.

The Royal Corps of Signals was founded in 1920 and since its founding the Corps has been leading the development of communications; delivering them in a variety of operational theatres.

AUTHOR: The Royal Signals are the Army's professional communicators. Everywhere the Army deploys from Special Forces and intelligence gathering teams to personnel deployed in armoured vehicles the Royals Signals deploy. The Corps celebrates its centenary in 2020. 400 colour illustrations.

Publisher T.H.E. Hi-Story Press LTD ISBN-13 9780750990509



Two Cap Badges

These illustrations were sent in by 'E' who notes The Royal Corps of Signals badge has been updated [*seems the same as my two part cap badge version*]. Tnx 'E'

Newscasts:

Australia

Fake Russian diplomats revealed as heart of ‘hive’ spy ring in Australia

By Nick McKenzie

February 24, 2023 — 5.50am

<https://www.smh.com.au/national/fake-russian-diplomats-revealed-as-heart-of-hive-spy-ring-in-australia-20230223-p5cmxz.html?>

ASIO director-general Mike Burgess described the spying operation in a major speech in Canberra on Tuesday, but did not name Russia.

The spy ring’s aim was to recruit Australians with access to classified information and, according to one source, use sophisticated technology to steal data and communicate without being intercepted.

The decision to let Russian diplomats remain in Australia as the war escalated in Ukraine allowed for ongoing efforts to monitor the spy ring members.

Members of the spy ring were quietly forced out of Australia over the past six months with their visas not renewed or cancelled.

A highly active “hive” of Russian spies posing as diplomats operated in Australia for more than 18 months before it was dismantled as part of a sweeping and aggressive counter-espionage offensive by ASIO.

The Australian intelligence agency spent months tracking the Russian spy ring, which comprised purported embassy and consular staff and operatives using other deep cover identities, before ASIO finally moved to force the ring’s key players out of Australia, according to sources with knowledge of its operation.

Foreign interference at all-time high, ASIO boss says

ASIO director-general Mike Burgess has said Australia is experiencing its highest level of foreign interference and espionage in our history.

ASIO director-general Mike Burgess described the spying operation in a major speech he delivered in Canberra on Tuesday, but did not name Russia.

Sources confirmed ASIO had uncovered the spy ring operating out of a number of locations, including the Russian embassy in Canberra, while the Morrison government was in power.

The spy ring’s aim was to recruit Australians with access to classified information and, according to one source with knowledge of the Russians’ activity, use sophisticated technology to steal data and communicate without being intercepted.

Rather than press for the expulsion of Russian embassy staff after President Vladimir Putin’s invasion of Ukraine — a move that occurred in other Western nations and which was sought by some within Australia’s intelligence community and Labor in early 2022— ASIO instead conducted a clandestine counter-espionage probe.

It tracked the Russian spy ring, ensuring targets did not suspect they were being watched by ASIO.

The sources said one factor influencing ASIO’s decision-making throughout the operation was the possibility Russia might retaliate by targeting the small number of Australian diplomatic staff in Moscow.

Some intelligence operations have previously led to tit-for-tat reprisals. One source with knowledge of the Russian spy ring said that if undeclared spies were aggressively and publicly expelled, there was an increased likelihood diplomats or other Australians living in Russia would have been targeted.

An early indicator of the Russian spying operation was the relatively high number of diplomatic staff it maintained in Australia given the extent of bi-lateral relations, especially when compared to the small number of staff maintained by Canberra in Moscow.

Intensive ASIO investigations had revealed several of Moscow’s diplomatic staff in Australia were involved in the spy ring, the sources said.

The abuse of diplomatic status to conduct espionage, while common in the intelligence world, represents a serious breach of protocol on the rare occasions it is exposed.

The revelations about the scale and seriousness of the breaches in Australia will inflame already strained relations between Moscow and Canberra.

In early 2022, then-opposition leader Anthony Albanese and then-shadow foreign affairs minister Penny Wong called on the Morrison government to expel Russian diplomats in light of reported atrocities in Ukraine.

“It is hard to conceive how the decision can be made to allow these individuals to stay, given the sickening abuses being carried out by Russian forces,” the pair said in a joint statement.

At that time, the ASIO operation was in full flight and there was division within the intelligence community about the impact of any aggressive, large-scale deportation move.

In response to Labor’s deportation call in April, then-foreign minister Marise Payne — a member of the National Security Committee that has access to ASIO intelligence — said such a move was “under review ... at the highest levels of the government”.

The sources said the decision to let Russian diplomats remain in Australia allowed for ongoing efforts to monitor the spy ring members. Then members of the ring were quietly forced out of Australia over the past six months with their visas not renewed or cancelled.

ASIO Director-General Mike Burgess says the level of foreign interference and espionage targeted at Australians is at its highest ever level.

National security

‘It feels like hand-to-hand combat’: ASIO boss warns on spy hives, foreign interference

In November, as the Ukraine-Russia conflict became entrenched, Wong released a statement stressing that “all options remain under consideration” in connection to the high number of Russian diplomats in Australia.

“While our preference is to maintain diplomatic channels, diplomatic profiles must always be consistent with our national interest,” a spokesperson for Wong said in the statement.

“The Australian government is looking hard at Russia’s diplomatic profile in Australia.”

That same month, at a Senate estimates hearing, Liberal senator James Paterson queried Labor and federal bureaucrats about the presence of Russian diplomats in Australia.

The Russian embassy was contacted by phone and email on Thursday but provided no response.

A spokesperson for Home Affairs Minister Clare O’Neil declined to comment on the revelations noting that Burgess had not named the nation involved in the spy ring.

“Espionage and foreign interference are happening in Australia and ASIO has been onto it like a shot. I want people to understand, those states that operate in the shadows, we have a very simple message – we are watching you,” O’Neil said on Thursday.

When he delivered his annual threat assessment speech on Tuesday evening, Burgess described a major spying operation that his agency had disrupted.

‘Proxies and agents were recruited as part of a wider network. Among other malicious activities, they wanted to steal sensitive information.’

ASIO director-general Mike Burgess

Burgess declined to name the country involved and ASIO subsequently refused to answer questions sent by this masthead.

“Consistent with long-standing practice, ASIO does not comment on operational or intelligence matters,” a spokesman said in a statement.

However, sources with knowledge of the Russian spy ring have described it in identical terms as Burgess, who said on Tuesday it was “bigger and more dangerous” than another major recent espionage operation ASIO had dismantled.

In 2022, Burgess described that earlier thwarted espionage operation as involving a “nest” of spies.

The sources confirmed Burgess’ comments this week referred to the larger and more recent Russian spy ring, a larger “hive” of spies working “undeclared” or “undercover”.

“Some were put in place years earlier,” Burgess said in his Tuesday speech in comments that match descriptions from sources about the use of Russian diplomatic cover by the spy ring.

“Proxies and agents were recruited as part of a wider network. Among other malicious activities, they wanted to steal sensitive information,” Burgess said in his speech.

“I’m not going into more detail because the foreign intelligence service is still trying to unpick exactly what and how we knew about its activities. It was obvious to us that the spies were highly trained because they used sophisticated tradecraft to try to disguise their activities.

“They were good – but ASIO was better. We watched them. We mapped their activities. The hive is history.”

In March 2018, the Turnbull government announced it was expelling two Russian diplomats as part of global action against Moscow over an alleged nerve agent attack on a former Russian spy living in the UK. Turnbull said the pair were undeclared intelligence officers and had been ordered to leave Australia within seven days.

The Morrison government was largely silent on the issue of expulsions of Moscow’s operatives after Western nations announced they were deporting Russian spies after the invasion of Ukraine.

In March 2022, the US government expelled 12 Russian diplomats from New York for “engaging in espionage activities”.

Across Europe, an estimated 400 suspected Russian spies were expelled from Moscow’s diplomatic posts as part of a campaign of sanctions and military support in retaliation against Putin’s invasion of Ukraine.

ASIO has a long history of countering Moscow-directed spying. The organisation was created in 1949 to probe suspected leaking of Australian government secrets to the Soviet Union.

<https://www.smh.com.au/national/fake-russian-diplomats-revealed-as-heart-of-hive-spy-ring-in-australia-20230223-p5cmxz.html?>

China

Hong Kong expats trying to join British Army targeted by suspected Chinese spy on Telegram

By Joe Duggan

March 3, 2023 12:21 pm(Updated 4:05 pm)

<https://inews.co.uk/news/hong-kong-expats-join-british-army-targeted-chinese-informant-telegram-2185613>

Hong Kongers in the UK who are hoping to join the British Army have reported being targeted by a suspected undercover Chinese Communist Party (CCP) spy in their Telegram group chat.

The approach to a Telegram channel for recruits to the Armed Forces in the UK under the British National Overseas (BNO) visa came from an unidentified person pretending to be a Reuters journalist using fake photographic ID in early January, the group said.

It came just a week before an online seminar was held for Hong Kongers looking to join the UK military was held along with other community groups.

Hong Kongers in Britain, an expatriate group which co-hosted the military seminar, condemned the “suspected espionage”, which it said could put army recruits “at potential risk”.

China's repressive national security law, which was imposed in 2020, led to more than 160,000 Hong Kongers fleeing to the UK under the BNO visa.

The security law, which purports to apply overseas and has been used to try and crush dissent in Hong Kong, criminalises any act Beijing deems as secession, subversion, terrorism or collusion with foreign or external forces.

It comes as it also reveals how Hong Kong dissidents who have fled to the UK have been followed and harassed by suspected pro-Chinese Communist Party informants recruited to monitor them.

The Telegram channel's administrators became suspicious and declined requests for an interview after being asked "strange questions", including whether they had "violated" the repressive security law imposed by China.

After an Australia-based Chinese activist and dissident artist known as Badiuca first revealed on Twitter that he and other activists had been approached by a fake reporter using the same false ID, the Telegram channel posted a warning to its followers.

On Tuesday, Reuters reported that two of their journalists had their identities faked by an unknown person or people who used fake social media accounts to engage with Chinese activists online for several months.

"The situation is serious. There is a suspected CCP spy pretending to be a reporter to admin," the Telegram channel for Hong Kong military recruits wrote.

The group, which has subsequently changed its name and removed the message, said it "wants to remind everyone that the infiltration of CCP secret agents is real".

It said: "They are afraid that Hong Kong people are joining the army abroad. We have to actively make them even more afraid."

A spokesperson for Hong Kongers in Britain condemned the "chilling" report of impersonation to "try accessing sensitive information".

"We believe such impersonation already amounts not only to frauds, but is suspected and seen as espionage to know the internal process of military recruitment, which may put people into a potential risk," they said.

Joining the armed forces was "legitimate and usual in every country and should be respected as citizen rights and national sovereignty", they added.

Someone from the Hong Kongers in Britain group had been in touch with the Telegram group's administrator and asked them to report it to the relevant authorities.

The group was now reviewing its sign-up process for future events, but screening participants was difficult as "intelligence gatherers" could still register using a fake name or email address.

The Bill is set to update existing espionage legislation, with new offences designed to combat state-linked sabotage and foreign interference. However, there remains concerns about how some elements of the Bill could restrict reporting by UK journalists.

It comes after the Chinese government was accused of setting up three secret police stations in the UK.

Last month, it revealed that a hidden Chinese tracking device was found in a UK Government car after intelligence officials stripped back vehicles amid growing concerns over spyware.

A Government spokesperson said: "The Hong Kong BNO programme funds charities and community groups including Hong Kongers in Britain to support those settling here. The Department for Levelling Up, Housing and Communities has no direct involvement in individual events.

"The Government continually assess potential threats to those in the UK. The Home Office works across government, with relevant agencies and law enforcement to protect people identified as being at risk, to ensure the UK is a safe and welcoming place for all.

"Anyone who believes that a crime has been committed or is concerned for their safety should contact the police."

It has contacted Hong Kong and Chinese authorities for comment.

A spokesperson for Hong Kong's Security Bureau said: "In conducting any operation, the police act on the basis of actual circumstances and according to the law. The police do not comment on individual cases.

"Members of the public are encouraged to report to the police if there is any suspected crime. The police will take appropriate actions on reports of crime accordingly.

<https://inews.co.uk/news/hong-kong-expats-join-british-army-targeted-chinese-informant-telegram-2185613>

Tnx E

Great Britain

Navy intercepts Iran's arms runners

George Grylls - Defence Correspondent

At 4am an American MQ-9 Reaper drone had spotted the boat, which was suspected of smuggling. The marines on the Type 23 frigate intercepted the vessel last week and confiscated a haul of anti-tank missiles.

"Fortunately I was awake," Commander Paul Irving said, recalling the events of February 23. "It was a very early start. But we got up that morning anticipating the task from dawn. We were ready for a boarding that day but we didn't know what form it might take. We certainly didn't expect to find what we did."

The skiff had been heading south from Iran, which has been accused of arming Houthi rebels in Yemen as part of a proxy war with Saudi Arabia. Despite campaigners taking legal action against ministers over arms sales, Britain remains a close ally of Saudi Arabia. A visit there this week by Ben Wallace, the defence secretary, was the latest demonstration of the government's steadfast support for its Middle Eastern ally.

As the first sunlight softened the Gulf skies, Irving readied the crew of 200 sailors. He manoeuvred the 4,900- tonne vessel into position, sent a helicopter to inspect the skiff with its infrared cameras and told a dozen Royal Marines from 42 Commando to prepare for action.

“We got a Wildcat helicopter up to have a look,” Irving said. “The cameras were able to peer inside the vessel. They saw two people and stores under what looked like a tarpaulin.”

At first the crew on the skiff ignored the order to stop and kept pushing ahead. The pair soon halted, perhaps because they feared the helicopter could chop up the waters — a tactic adopted by the Royal Navy — and probably they were not too attached to their cargo. “Smugglers are smugglers,” Irving said. “They get paid to transfer whatever their cargo is. Often they don’t know what they’re moving.”

Irving ordered the commandos to board the boat in the light of a new day. The marines were prepared for trouble but the smugglers were unarmed.

“Fortunately most of the boardings we do, there might be some small arms on the vessel, but it is very rare for them to be used in a threatening way towards a boarding team,” Irving said.

The smugglers had no guns but hidden on their vessel was a cache of weapons that shocked even the seasoned marines. The skiff was carrying Dehlavieh anti-tank guided 9M133 missiles modelled on Russian designs.

Stashed beneath the tarpaulin, the commandos also found components that could make medium-range ballistic missiles. It was an impressive haul for HMS Lancaster after taking over from HMS Montrose as the permanent frigate in the Gulf at the end of last year.

HMS Lancaster was one of three Royal Navy frigates that spent much of last summer shadowing two Russian warships around Ireland and the UK.

The Marshal Ustinov, a Slava-class cruiser, was patrolling international waters in August and September and came menacingly close to the UK mainland several times, even entering Ireland’s exclusive economic zone at one point. With the destroyer Vice- Admiral Kulakov, the Marshal Ustinov had its own reasons to be wary. Its sister ship the Moskva had been sunk a few months earlier in the Black Sea.

In the Middle East, HMS Lancaster forms part of an international effort to crack down on drugs and weapons smuggling. Last year, HMS Montrose seized £47 million worth of narcotics and confiscated Iranian weapons including cruise missiles and drones.

But within a couple of months of taking over duties, HMS Lancaster has now notched up its own major haul.

“We haven’t celebrated yet because we’re still at sea,” Irving said. “We were straight back out on operations the next day.”

Anger as leading tech conference advises Belfast visitors ‘black taxis are run by IRA’

The memo relates to security around conference CyberUK which is due in Belfast next week (Stock image)

Kurtis Reid

Belfast Telegraph

Fri 14 Apr 2023 at 12:00

<https://www.belfasttelegraph.co.uk/news/northern-ireland/anger-as-leading-tech-conference-advises-belfast-visitors-black-taxis-are-run-by-ira/347493856.htm>

A security briefing document warning attendees at a Belfast tech conference not to take black cab tours “because they are run by the IRA” has been withdrawn. Organisers said it was “sent in error by a contractor” and contained “significant factual inaccuracies”.

The document concerned preparations for visitors to CyberUK’s 2023 conference next week.

The memo, reported by the BBC’s Nolan Show, also stated those with “English accents” will not be welcome in certain parts of the city, and warned that security may be compromised if delegates were to “eat outside the city centre”.

It is understood potential attendees were advised to say they were “under a non-disclosure agreement” if asked why they are in Belfast, and to not use the term “CyberUK” outside of the conference venue.

CyberUK is a flagship event organised by the National Cyber Security Centre.

It is due to take place in Belfast next Wednesday and Thursday, with the theme of “securing an open and resilient digital future”.

Guests from across the world’s tech security sector will be in attendance.

The National Cyber Security Centre distanced itself from the document.

A spokesperson said: “This is not an NCSC document. It was sent in error by a contractor and contains significant factual inaccuracies. The document has been withdrawn.”

“If I was a taxi driver in Belfast I would feel that this, number one, created a level of risk; and, number two, was defamatory to me and to the organisation.”

In reference to advice warning against “walking around housing estates which surround the city”, he added: “It’s utterly offensive and unhelpful. These companies need to come out and issue an apology.”

“Those involved need to sit back and reflect on what is going on here.”

“If you go to an event in any part of the world and there have been high levels of crime, you may say be careful in certain areas... that’s totally different.”

Tour operator Norman Reilly, who runs Taxi Tours Belfast, said the contents of the document were “a lot of nonsense”.

“It’s damaging for my business and other businesses and damaging for the working-class people of those communities,” he told the BBC.

A black taxi driver interviewed by Nolan, identified as Pat, said the document could be “putting drivers’ lives in danger”.

He said several Belfast taxi drivers had just finished providing transport associated with President Biden's visit, meaning they were "completely vetted by US Secret Service".

He added: "My friends in the Shankill and I provide tours and for someone to say we are IRA men... I am absolutely disgusted."

Belfast City Council said it did not endorse the comments.

<https://www.belfasttelegraph.co.uk/news/northern-ireland/anger-as-leading-tech-conference-advises-belfast-visitors-black-taxis-are-run-by-ira/347493856.html>

*Thanks AnonNI who commented 'It is understood potential attendees were advised to say they were "under a non-disclosure agreement" if asked why they are in Belfast. That is definitely a good way *to draw attention* to yourself in Belfast!*

Russian hackers are attempting to 'destroy' UK infrastructure, warns minister

Sian Elvin

Wednesday 19 Apr 2023 10:42 am

<https://metro.co.uk/2023/04/19/warning-russian-hackers-are-attempting-to-destroy-uk-infrastructure-18635721/>

Oliver Dowden said an 'official threat notice' has been issued to operators of critical cyber infrastructure (Picture: PA / Rex)
The UK is facing 'ideologically motivated' threats from pro-Kremlin hacking groups, a government minister has warned.

Oliver Dowden, the chancellor of the Duchy of Lancaster, today confirmed the National Cyber Security Centre (NCSC) has issued an 'official threat notice' to operators of critical national infrastructure.

'Disclosing this threat is not something we do lightly,' he told the CyberUK conference in Belfast this morning.

'But we believe it is necessary at this point in time, if we want these companies to understand the current threat they face, and to take action to defend themselves and the country against such attacks.'

The NCSC said there is an 'emerging risk posed by state-aligned adversaries' as a result of the Russia-Ukraine war, and organisations need to 'act now' to protect themselves against attacks.

Mr Dowden said these Russian-aligned groups now have a motive to 'disrupt or destroy' UK infrastructure.

He added they are 'ideologically motivated, rather than financially motivated', which makes them 'particularly concerning'.

The chancellor of the Duchy of Lancaster addressed the CyberUK conference in Belfast this morning (Picture: PA)

Mr Dowden, who is also responsible for national investment security, also used the conference to announce new measures to support businesses 'on the front line of our cyber defences'.

He said: 'These are the companies in charge of keeping our country running. Of keeping the lights on.'

'Our shared prosperity depends on them taking their own security seriously, and that extends to their cybersecurity.'

'A bricks-and-mortar business wouldn't survive if it left the back door open to criminals every night. Equally in today's world, businesses can't afford... to leave their digital back door open to cyber crooks and hackers.'

'So the safer we make our defences, the safer we make our country – and the more attractive we become as a destination for entrepreneurs and investors all over the world.'

'The fact that the UK has in the last few years taken cybersecurity so seriously already makes us one of the best places in the world to invest.'

One of these measures is a new 'GovAssure' cybersecurity audit, which will be run from the Cabinet Office to check the UK's critical IT systems.

Mr Dowden further admitted the government 'needs to break through its own glass ceiling' and look at improving salaries to help attract cybersecurity experts into the civil service.

The head of the NCSC, Lindy Cameron, later told the conference: 'I don't think we are yet doing enough to protect our infrastructure from the cyber threats emerging from Russia-aligning groups.'

'If the UK is to be the safest place to live and work online, then resilience must urgently move to the top of our investment shopping list.'

He added: 'These are people protecting the systems and public services that millions of people across the country rely on every day, so we should want the very best people in charge of them. We must be competitive to stay ahead.'

There have been increasing concerns about cyber attacks in recent years.

The Royal Mail postal service faced severe disruption due to a cyber attack in January this year.

Printers at a distribution site near Belfast, in Northern Ireland, reportedly started printing ransom notes from LockBit, which is a hacker group widely thought to have close links to Russia.

<https://metro.co.uk/2023/04/19/warning-russian-hackers-are-attempting-to-destroy-uk-infrastructure-18635721/>

Tnx E

Russia

Pictures emerge of Russian ships off west coast of Ireland

Updated / Sunday, 2 Apr 2023 19:37

<https://www.rte.ie/news/munster/2023/0402/1367830-russian-ships/>

By Jennie O'Sullivan

Pictures have emerged of the Russian-registered ships that have been causing concern off the west and southwest coast of Ireland over the past week.

The images released by the Air Corps reveal three ships, not two as previously reported.

The three Russian-registered commercial vessels, the UMKA - an off-shore supply vessel, the BAHKTEMIR - a salvage and rescue ship and the FORTUNA - a pipelay/crane vessel, first departed from the Russian port of Murmansk on 23 February on a course for the Equatorial Guinea port of Malobo on the west coast of Africa.

At least two of the Russian ships were first sighted off the Galway coast late last week in the vicinity of a newly opened sub-sea communications cable.

The vessels then left the Irish Exclusive Economic Zone before re-appearing again without explanation off the north Kerry coast, west of An Daingean on Friday.

Their movements were monitored by the Air Corps, and by the Naval Service from their base at Haulbowline.

There was no Irish naval ships at sea on Friday due to a lack of personnel.

While the presence of the ships initially "raised serious concerns" among Irish military officials, later analysis, according to the Irish Times, "determined the ships' unusual movements were probably a result of efforts to avoid bad weather, rather than anything sinister".

Ship tracking software now places the vessels south of the English coast en route for the Bay of Biscay.

In a statement issued this evening, the Defence Forces said the Irish Air Corps and the Irish Naval Service "had observed Russian commercial vessels in international waters off the island of Ireland as part of their Maritime, Defence & Security Operations".

They said they "continue to monitor activity in Irish waters and to undertake maritime Defence and Security Operations throughout Ireland's maritime domain".

(Pictures courtesy of Irish Defence Forces)

<https://www.rte.ie/news/munster/2023/0402/1367830-russian-ships/>

Really worth a look for the ships found off Irish coastal waters Thanks to AnonNI

United States

Leaker of U.S. secret documents worked on military base, friend says

THE DISCORD LEAKS | The online group that received hundreds of pages of classified material included foreigners, members tell The Post

By Shane Harris and Samuel Oakford

April 12, 2023 at 9:36 p.m. EDT

<https://www.washingtonpost.com/national-security/2023/04/12/discord-leaked-documents/>

The man behind a massive leak of U.S. government secrets that has exposed spying on allies, revealed the grim prospects for Ukraine's war with Russia and ignited diplomatic fires for the White House is a young, charismatic gun enthusiast who shared highly classified documents with a group of far-flung acquaintances searching for companionship amid the isolation of the pandemic.

United by their mutual love of guns, military gear and God, the group of roughly two dozen — mostly men and boys — formed an invitation-only clubhouse in 2020 on Discord, an online platform popular with gamers. But they paid little attention last year when the man some call "OG" posted a message laden with strange acronyms and jargon. The words were unfamiliar, and few people read the long note, one of the members explained. But he revered OG, the elder leader of their tiny tribe, who claimed to know secrets that the government withheld from ordinary people.

The young member read OG's message closely, and the hundreds more that he said followed on a regular basis for months. They were, he recalled, what appeared to be near-verbatim transcripts of classified intelligence documents that OG indicated he had brought home from his job on a "military base," which the member declined to identify. OG claimed he spent at least some of his day inside a secure facility that prohibited cellphones and other electronic devices, which could be used to document the secret information housed on government computer networks or spooling out from printers. He annotated some of the hand-typed documents, the member said, translating arcane intel-speak for the uninitiated, such as explaining that "NOFORN" meant the information in the document was so sensitive it must not be shared with foreign nationals.

OG told the group he toiled for hours writing up the classified documents to share with his companions in the Discord server he controlled. The gathering spot had been a pandemic refuge, particularly for teen gamers locked in their houses and cut off from their real-world friends. The members swapped memes, offensive jokes and idle chitchat. They watched movies together, joked around and prayed. But OG also lectured them about world affairs and secretive government operations. He wanted to "keep us in the loop," the member said, and seemed to think that his insider knowledge would offer the others protection from the troubled world around them.

"He's a smart person. He knew what he was doing when he posted these documents, of course. These weren't accidental leaks of any kind," the member said.

The transcribed documents OG posted traversed a range of sensitive subjects that only people who had undergone months-long background checks would be authorized to see. There were top-secret reports about the whereabouts and movements of high-ranking political leaders and tactical updates on military forces, the member said. Geopolitical analysis. Insights into foreign governments' efforts to interfere with elections. "If you could think it, it was in those documents."

In those initial posts, OG had given his fellow members a small sip of the torrent of secrets that was to come. When rendering hundreds of classified files by hand proved too tiresome, he began posting hundreds of photos of documents themselves, an astonishing cache of secrets that has been steadily spilling into public view over the past week, disrupting U.S. foreign policy and aggravating America's allies.

This account of how detailed intelligence documents intended for an exclusive circle of military leaders and government decision-makers found their way into and then out of OG's closed community is based in part on several lengthy interviews with the Discord group member, who spoke to The Washington Post on the condition of anonymity. He is under 18 and was a young teenager when he met OG. The Post obtained consent from the member's mother to speak to him and to record his remarks on video. He asked that his voice not be obscured.

Dozens of highly classified documents have been leaked online, revealing sensitive information intended for senior military and intelligence leaders. In an exclusive investigation, The Post also reviewed scores of additional secret documents, most of which have not been made public. Where did they come from? The top-secret documents appear to be — at least partly — from the Pentagon and many seem to have been prepared for senior military officials. Post reporting revealed that a man in his early to mid-20s allegedly shared them with members of an invitation-only Discord group. What do the leaked documents reveal about Ukraine? The documents reveal profound concerns about the war's trajectory and Kyiv's capacity to wage a successful offensive against Russian forces. According to a Defense Intelligence Agency assessment among the leaked documents, "Negotiations to end the conflict are unlikely during 2023." What else do they show? The files include summaries of human intelligence on high-level conversations between world leaders, as well as information about advanced satellite technology the United States uses to spy.

They also include intelligence on both allies and adversaries, including Iran and North Korea, as well as Britain, Canada, South Korea and Israel.

What happens now? The leak has far-reaching implications for the United States and its allies. In addition to the Justice Department investigation, officials in several countries said they were assessing the damage from the leaks.

His account was corroborated by a second member who read many of the same classified documents shared by OG, and who also spoke on the condition of anonymity. Both members said they know OG's real name as well as the state where he lives and works but declined to share that information while the FBI is hunting for the source of the leaks. The investigation is in its early stages, and the Pentagon has set up its own internal review led by a senior official.

"An interagency effort has been stood up, focused on assessing the impact these photographed documents could have on U.S. national security and on our Allies and partners," Pentagon deputy press secretary Sabrina Singh said in a statement.

Discord said in a statement that it is cooperating with law enforcement and has declined to comment further.

The Post also reviewed approximately 300 photos of classified documents, most of which have not been made public; some of the text documents OG is said to have written out; an audio recording of a man the two group members identified as OG speaking to his companions; and chat records and photographs that show OG communicating with them on the Discord server.

The young member was impressed by OG's seemingly prophetic ability to forecast major events before they became headline news, things "only someone with this kind of high clearance" would know. He was by his own account enthralled with OG, who he said was in his early to mid-20s.

"He's fit. He's strong. He's armed. He's trained. Just about everything you can expect out of some sort of crazy movie," the member said.

In a video seen by The Post, the man who the member said is OG stands at a shooting range, wearing safety glasses and ear coverings and holding a large rifle. He yells a series of racial and antisemitic slurs into the camera, then fires several rounds at a target.

The member seemed drawn to OG's bravado and his skill with weapons. He felt a certain kinship with a man he described as "like an uncle" and, on another occasion, as a father figure.

"I was one of the very few people in the server that was able to understand that these [documents] were legitimate," the member said, setting himself apart from the others who mostly ignored OG's posts.

"It felt like I was on top of Mount Everest," he said. "I felt like I was above everyone else to some degree and that ... I knew stuff that they didn't."

The member met OG about four years ago, on a different server for fans of Oxide, a popular YouTuber who streams videos about guns, body armor and military hardware. He said a group of avid members found the server too crowded and wanted a quieter place to talk about video game tactics, so they broke off into their own, small group.

More like-minded Oxide fans joined the private Discord server, which came to be named "Thug Shaker Central," and whose membership OG would effectively control as the administrator.

"We all grew very close to each other, like a tightknit family," the member said. "We depended on each other." He said that other members, and OG especially, counseled him during bouts of depression and helped to steady him emotionally. "There was no lack of love for each other."

OG was the undisputed leader. The member described him as "strict." He enforced a "pecking order" and expected the others to read closely the classified information he had shared. When their attention waned, he got angry.

Late last year, a peeved OG fired off a message to all the members of the server. He had spent nearly an hour every day writing up "these long and drawn-out posts in which he'd often add annotations and explanations for stuff that we normal citizens would not understand," the member said. His would-be pupils were more interested in YouTube videos about battle gear.

"He got upset, and he said on multiple occasions, if you guys aren't going to interact with them, I'm going to stop sending them."

That's when OG changed tactics. Rather than spend his time copying documents by keyboard, he took photographs of the genuine articles and dropped them in the server. These were more vivid and arresting documents than the plain text renderings. Some featured detailed charts of battlefield conditions in Ukraine and highly classified satellite images of the aftermath of Russian missile strikes on Ukrainian electrical facilities. Others sketched the potential trajectory of North Korean ballistic nuclear missiles that could reach the United States. Another featured photographs of the Chinese spy balloon that floated across the country in February, snapped from eye-level, probably by a U-2 spy plane, along with a diagram of the balloon and the surveillance technology attached to it.

OG shared several documents a week, beginning late last year. Posting pictures to the server took less time. But it also exposed OG to greater risk. In the background of some images, they could see items and furniture that they recognized from the room where OG spoke to them via video on the Discord channel — the kind of clues that could prove useful for federal investigators.

The dramatic and yet nonchalant presentation also reminded the group that OG could lay his hands on some of the most closely guarded intelligence in the U.S. government. “If you had classified documents, you’d want to flex at least a little bit, like hey, I’m the big guy,” the member said. “There is a little bit of showing off to friends, but as well as wanting to keep us informed.”

In a sense, OG had created a virtual mirror image of the secretive facility where he spent his working hours. Inside the Discord server, he was the ultimate arbiter of secrecy, and he allowed his companions to read truths that “normal citizens” could not.

A breach of secrecy

The photographs of printed secret documents now seen by millions may offer clues to the federal agents searching for OG. Reality Winner, who leaked secret National Security Agency documents to the news website the Intercept in 2017, was compromised by secret markings on printouts that helped narrow the search. OG’s documents look to have been printed on ordinary paper and were creased after having been folded in four. Sometimes, the photographs OG took of the documents appeared to have been taken over a bed. Items such as Gorilla Glue, a scope manual and nail clippers appeared in the margins. Other previously unreported images reviewed by The Post showed printed documents lying on top of a glowing red keyboard.

The breadth of the military and intelligence reports was extensive. For months, OG regularly uploaded page after page of classified U.S. assessments, offering a window into how deeply American intelligence had penetrated the Russian military, showing that Egypt had planned to sell Russia tens of thousands of rockets and suggesting that Russian mercenaries had approached Turkey, a NATO ally, to buy weapons to fight against Ukraine.

Egyptian President Abdel Fatah El-Sisi, left, with Russian President Vladimir Putin in 2018. Among the leaked documents were a U.S. military assessment that Egypt planned to sell Russia tens of thousands of rockets as Moscow wages war in Ukraine. (Alexei Druzhinin/Sputnik/Pool/AP)
At least one of the documents appeared to have been printed from Intellipedia, a data-sharing system that intelligence agencies use to collaborate and post reports and articles.

The documents were another lesson for younger members in how OG thought the world really worked. The member said OG wasn’t hostile to the U.S. government, and he insisted that he was not working on behalf of any country’s interests. “He is not a Russian operative. He is not a Ukrainian operative,” the member said. The room on the server where he posted the documents was called “bear-vs-pig,” meant to be a snide jab at Russia and Ukraine, and an indication that OG took no sides in the conflict.

But OG had a dark view of the government. The young member said he spoke of the United States, and particularly law enforcement and the intelligence community, as a sinister force that sought to suppress its citizens and keep them in the dark. He ranted about “government overreach.”

OG told his online companions that the government hid horrible truths from the public. He claimed, according to the members, that the government knew in advance that a white supremacist intended to go on a shooting rampage at a Buffalo supermarket in May 2022. The attack left 10 dead, all of them Black, and wounded three more. OG said federal law enforcement officials let the killings proceed so they could argue for increased funding, a baseless notion that the member said he believes and considers an example of OG’s penetrating insights about the depth of government corruption.

OG’s group itself had a dark side. The Discord server’s eventual name, Thug Shaker Central, was a racist allusion, and signaled to members that they were free to hurl epithets and crude jokes. The young member expressed some regret for their behavior but seemed to shrug off the offensive remarks as a clumsy attempt at humor.

It was not “a fascist recruiting server,” he told The Post.

One thing the members were not supposed to do was talk about the secrets OG had shared with them, including the classified documents.

“Most people in the server were smart enough as to kind of realize that ... they shouldn’t be posted anywhere else,” the member said. And yet, the group contained foreign citizens — including from Russia and Ukraine, the members said — a defiance of the NOFORN warning printed across the top of so many documents OG shared.

The member estimated that the server hosted people from Europe, Asia and South America. “Just about every walk of life.” Of the roughly 25 active members who had access to the bear-vs-pig channel, about half were located overseas, the member said. The ones who seemed most interested in the classified material claimed to be from mostly “Eastern Bloc and those post-Soviet countries,” he said. “The Ukrainians had interest as well,” which the member chalked up to interest in the war ravaging their homeland.

For years, U.S. counterintelligence officials have eyed gaming platforms as a magnet for spies. Russian intelligence operatives have been suspected of befriending gamers who they believe work for intelligence agencies and encouraging them to divulge classified information, a senior U.S. official said, speaking on the condition of anonymity to discuss sensitive information.

It’s not clear whether any of those efforts have been successful. But if foreign operatives finagled an invitation to OG’s server, they would have been free to view the documents and make copies of them, as some members did.

The server sprouts a leak

All winter, OG uploaded documents to the server. No one talked about sharing them elsewhere. Then, unbeknown to the group, on Feb. 28, another teenage user from the Thug Shaker Central server began posting several dozen photographs showing classified documents on another Discord server affiliated with the YouTuber “wow_mao.” Some of the documents offered detailed assessments of Ukraine’s defense capabilities and showed how far U.S. intelligence could see into Russia’s military command.

On March 4, 10 documents appeared on “Minecraft Earth Map,” a Discord server focused on the popular video game. A user operating the account that posted the smaller tranche of images told The Post they obtained them on wow_mao.

Secret and top-secret documents were now available to thousands of Discord users, but the leak wouldn’t come to the attention of U.S. authorities for another month. Meanwhile, OG stopped sharing images in the middle of March. On April 5, classified documents assessing the war in Ukraine were posted on Russian Telegram channels and the message board platform 4chan, and began migrating to Twitter. One image, showing a March 1 Ukraine status update, had been crudely doctored to inflate the number of Ukrainian casualties and downplay those on the Russian side.

The next day, shortly before the New York Times first reported on the leak, OG came into the server “frantic, which is unusual for him,” the member said.

“He said something had happened, and he prayed to God that this event would not happen. ... But now it’s in God’s hands.”

Not a whistleblower

For all OG's disdain for the federal government, the member said there was no indication that he was acting in what he thought was the public interest by exposing official secrets. The classified documents were intended only to benefit his online family, the member said.

"I would definitely not call him a whistleblower. I would not call OG a whistleblower in the slightest," he said, resisting comparisons to Edward Snowden, who shared classified documents about government surveillance with journalists.

Remarkably, the member said he has been in touch with OG in the past few days, even as an FBI manhunt is underway and the Pentagon launches its own inquiry into the leaks. After shuttering the Thug Shaker Central server, OG moved the community to another server to communicate with his online family.

He "seemed very confused and lost as to what to do," the member said. "He's fully aware of what's happening and what the consequences may be. He's just not sure on how to go about solving this situation. ... He seems pretty distraught about it."

In his final message to his companions, OG admonished them to "keep low and delete any information that could possibly relate to him," the member said. That included any copies of the classified documents OG had shared.

When it dawned on them that OG was in grave peril and intended to disappear, the members of Thug Shaker Central "full-on sobbed and cried," the young member said. "It is like losing a family member."

In hours of interviews, he continued to express admiration and loyalty to a man who may have endangered his young followers by allowing them to see and possess classified information, exposing them to potential federal crimes.

"I figured he would not be putting us in any sort of harm's way," the member said.

The exposure of the documents has severed friendships and cut him off from the man who buoyed his confidence and made him feel safe. The member said that the stress of the loss, coupled with the enormity of the leaks, has left him worried and sleepless.

Now he says he believes that the world should see the secrets OG passed along to a tiny group. He argued that the public deserves to know how intelligence agencies spend their tax dollars, and was particularly outraged that the documents show U.S. surveillance of foreign allies.

But what the young man regarded as a revelation will come as no surprise to the countries whose officials the U.S. has been monitoring for decades. While rarely discussed, and embarrassing for Washington when exposed, it's widely understood that the U.S. intelligence community monitors many friendly governments, just as foreign allies try to do the same.

Thousands of military personnel and government employees around OG's age, working entry-to-low-level positions, could plausibly have access to classified documents like the ones he allegedly shared, according to U.S. officials and experts who have seen the documents reported in the media. Despite what his young followers thought, OG would have had no special knowledge compared with his peers. He possessed no special power to predict events. Rather, he appears to have persuaded some highly impressionable teenagers that he's a modern-day gamer meets Jason Bourne.

The member said he's confident the authorities will find OG. But when they do, he won't be charged. Instead, he believes, OG will be imprisoned without due process at Guantánamo Bay or disappeared to a "black site," if he's not "assassinated" for what he knows.

The member, as well as the OG follower who corroborated his account, found no fault in their leader's actions and instead said they blame the teen who posted the documents on the wow_mao server for wrecking their community.

"Maybe we should have had better opsec," the member said, harnessing the jargon of military and intelligence personnel for "operations security."

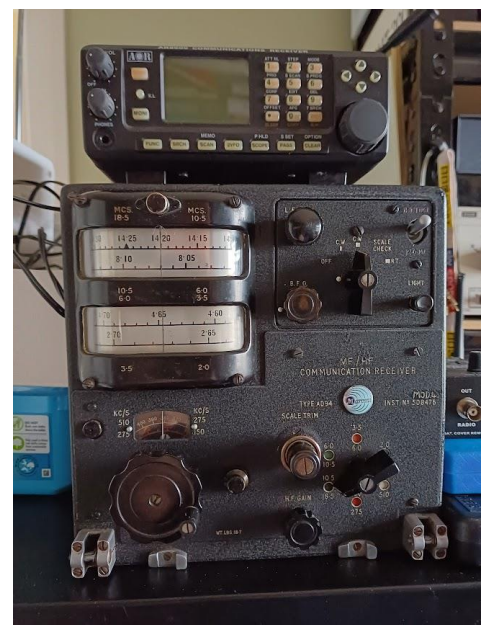
He said he will not divulge OG's identity or location to law enforcement until he is captured or can flee the United States. "I think I might be detained eventually. ... I think there might be a short investigation on how I knew this guy, and they'll try to get something out of me. They might try to threaten me with prison time if I don't reveal their identity."

To date, no federal law enforcement officials have contacted the young group member. Asked why he was prepared to help OG even at the risk of his own freedom, the young man replied without hesitation: "He was my best friend."

<https://www.washingtonpost.com/national-security/2023/04/12/discord-leaked-documents/>

Two very good receivers in possession of your editor, one SMD the other valved throughout.

Both good for Number Stations



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

12142 1429z 09 Apr 5 Ltr grps Unknown CW E SUN

Morse - Number Stations

M01/2 XIV MCW, hand (463 sched for Mar- Apr). Will change to M01/3 sched ID 025 for May - Aug.

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

March 2023:

5020	2000z	02 Mar	'463' 989 30 == 86787 67587 ... 65786 80900 ==	Strong, V.fast. Numerous errors inc. random strings	BR/HFD	THU
	2000z	07 Mar	'463' 714 30 == 22091 77290 ==	Good, fast. Missed start. No errors noted	BR	TUE
	2000z	09 Mar	'463' 591 30 == 26140 73637 ... 51820 71630 ==	Strong, fast. Excellent Morse. No errors. Perfect send!	BR	THU
	2000z	16 Mar	'463' 981 30 == 71851 09187 ... 98661 64537 ==	Strong, fast. Good Morse. Error Grp20 16537 16473	BR	THU
	2000z	21 Mar	'463' 42378 45389 ... 89743 78945 == 639 30	Strong, fast. Irregular, many errors. No start seq.	BR	TUE
	2000z	23 Mar	'463' 275 30 == 21323 21123 ... 8970989709 ==	Strong, V.fast. First 14 grps good then 100 fig string	BR	THU
	2000z	28 Mar	'463' 473 30 == 76154 09187 ... 67859 16517 ==	Strong, fast. Excellent Morse. No errors. Perfect send!	BR	TUE
5475	1800z	02 Mar	'463' 735 30 == 65746 45365 ... 89776 57686 ==	Strong, V.fast. Numerous errors inc. random strings	BR/HFD	THU
	1800z	07 Mar	'463' 916 30 == 91873 17616 ... 76151 03151 ==	Good with QSB, med-fast. Grp06 857361 857361	BR	TUE
	1800z	16 Mar	'463' 173 30 == 01982 45371 ... 76154 54165 ==	Good, fast. Excellent Morse. No errors. Perfect send!	BR	THU
	1800z	18 Mar	'463' 731 30 == 45634 68745 ... 57645 69034	Good, fast. Numerous pauses. End sequence changed	BR	TUE
	1800z	23 Mar	'463' 139 30 == 76857 65758 ... 8897685775 ==	Fair/Good, V.Fast. First 15 grps good then 95 fig string	BR	THU
	1800z	28 Mar	'463' 815 30 == 83761 01761 ... 76518 12651 ==	Fair, fast. Excellent Morse. No errors. Perfect send!	BR	TUE
6260	1500z	04 Mar	'463' 607 30 == 50306 16296 ... 07380 51927	Fair with QSB, fast. Many errors. == missing at end	BR	SAT
	1500z	11 Mar	'463' 521 30 == 27032....		HFD	SAT
6510	0700z	12 Mar	'463' 027 30 == 27032....	Strong harmonic on 13020kHz	HFD	SUN
	0700z	19 Mar	'463' 453 30 == 87968 45365 ... 87699 90997 ==	Fair/Good with QSB. Several errors in last 10 groups	BR	SUN

April 2023:

5020	2000z	04 Apr	'463' 603 30 == 84605 92175 ... 41402 23850 ==	Strong, fast. Excellent Morse. One Error in Grp22	BR	TUE
	2000z	06 Apr	'463' 859 30 == 56778 09845 ... 79845 7845 ==	Strong, fast. First 10 grps well-sent followed by strings	BR	THU
	2000z	11 Apr	'463' 361 30 == 67845 78956 ... 80967 56490	Strong, fast. Errors noted. = = missing from end of msg.	BR	TUE
2000z	18 Apr	'463' 539 30 == 27032 01042 ... 23108 40740 ==	Good, fast. Good Morse. Error grp24 58040 58400	BR	TUE	
2000z	20 Apr	'463' 405 30 == 41651 08537 ... 94382 56860 ==	Strong, fast. Excellent Morse. No errors	BR	THU	
5475	1800z	06 Apr	'463' 761 30 == 78549 34265 ... 79845 67856 ==	Good, fast. Well-sent Morse with many repeat errors	BR	THU
	1800z	18 Apr	'463' 322 30 == 50890 32221 ==	Good, fast. Missed start. Good Morse. Error grp25	BR	TUE
	1800z	20 Apr	'463' 684 30 == 75315 90865 ... 95185 75974 ==	Weak/Fair, fast. Excellent Morse. Error grp15	BR	THU
6260	1500z	08 Apr	'463' 365 30 == 43546 ==	V.weak, fast. Very poor copy	BR	SAT
	1500z	15 Apr	'463' 608 30 == 0 . 403 576	V.weak, fast. Very poor copy	BR	SAT

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

A number of regular schedules have been reported & Logged by Edd Smith – See ENIGMA 2000 Newsletter 116 for details.

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

16284/15984/14784	0010/30/50z	03 Mar	297 1	(Via SDR Japan)	HFD	FRI
	0010/30/50z	06 Mar	297 1 (166 180) 09579 30427....	(Via SDR Japan)	BR	MON
	0010/30/50z	13 Mar	297 1 (5797 142) 11427 01672....	(Via SDR Japan)	BR	MON
18767/17467/16267	0300/20/40z	02 Mar	742 1	(Via SDR Japan)	HFD	THU
	0300/20/40z	07 Mar	742 1 (448 166) 88441 35410....	(Via SDR Japan)	BR	TUE
	0300/20/40z	21 Mar	742 1 (8134 84) 94326 08911....	(Via SDR Japan)	BR	TUE
10904/10204/9304	0700/20/40z	04 Apr	742 1	(Via SDR Japan)	HFD	TUE

14837/13937/12137	0010/30/50z 0010/30/50z	03 Apr 28 Apr	891 1 (213 176) 891 1 (6869 82)	71318 28035.... 98946 99983....	(Via SDR Japan) (Via SDR Japan)	BR/HFD BR	MON FRI
18767/17467/16267	0300/20/40z	04 Apr	742 1		(Via SDR Japan)	HFD	TUE

European M12 Logs

March 2023:

New scheds in bold type

5863/7463/8163	0030/0050/0110z 0030/0050/0110z 0030/0050/0110z 0030/0050/0110z 0030/0050/0110z	07 Mar 14 Mar 17 Mar 21 Mar 24 Mar	841 1 (7579 97) 841 1 (9404 135) 841 1 (9404 135) 841 1 (8528 125) 841 1 (8528 125)	34865 39661.... 69922 97499.... 69922 97499.... 44373 41050.... 44373 41050....		BR/HFD BR BR BR BR	TUE TUE FRI TUE FRI
8126/7526/6826	2200/20/40z 2200/20/40z 2200/20/40z 2200/20/40z 2200/20/40z 2200/20/40z 2200/20/40z 2200/20/40z	03 Mar 04 Mar 10 Mar 11 Mar 17 Mar 24 Mar 25 Mar 31 Mar	178 1 (357 94) 178 1 (357 94) 178 1 (357 94) 178 1 (357 94) 178 1 (261 92) 178 1 (261 92) 178 1 (261 92) 178 1 (9726 132)	06403 78662 ... 53833 80413 000 000 06403 78662.... 06403 78662.... 06403 78662.... 57451 21136.... 57451 21136.... 57451 21136.... 82395 80371....		BR/Gert/HFD BR BR BR BR BR BR BR	FRI SAT FRI SAT FRI SAT SAT FRI
9157/7957/6857	2300/20/40z 2300/20/40z 2300/20/40z 2300/20/40z 2300/20/40z 2300/20/40z	02 Mar 06 Mar 09 Mar 13 Mar 20 Mar 30 Mar	917 1 (6767 162) 917 000 917 000 917 1 (218 135) 917 1 (8640 151) 917 1 (7669 99)	13542 86084.... 27237 10660.... 12155 35315.... 62354 61357....		BR BR HFD BR BR BR	THU MON THU MON MON THU
10238/9138/7838	2000/20/40z 2000/20/40z 2000/20/40z 2000/20/40z 2000/20/40z 2000/20/40z 2000/20/40z	01 Mar 03 Mar 08 Mar 17 Mar 22 Mar 29 Mar 31 Mar	218 1 218 1 (9166 117) 218 000 218 1 (557 185) 218 1 (6320 163) 218 000 218 000	85036 44616.... 99072 50278.... 99211 82791.... 		HFD Gert BR BR BR BR BR	WED FRI WED FRI WED WED FRI
11435/10598/9327	1800/20/40z 1800/20/40z 1800/20/40z	04 Mar 11 Mar 18 Mar	938 1 938 1 (4315 77) 938 1 (2644 71)	92681 90265.... 48539 76646....		HFD BR BR	SAT SAT SAT
12205/13559/14728	1230/1250/1310z	13 Mar	973 1			HFD	MON
13386/12189/11491	1110/30/50z 1110/30/50z 1110/30/50z	02 Mar 09 Mar 30 Mar	725 1 (4855 94) 725 1 (7787 97) 725 1 (8646 98)	25038 86152.... 39068 98842.... 93847 58040....		BR/HFD BR BR	THU THU THU
14427/14927/ - - -	0900/20/40z 0900/20/40z	03 Mar 31 Mar	493 000 493 000			HFD BR	FRI FRI
15848/17448/19148	0800/20/40z 0800/20/40z 0800/20/40z	05 Mar 22 Mar 29 Mar	841 1 841 1 (4173 227) 841 1 (477 201)	57407 40497 ... 77390 69248 000 000 96354 65767....		BR BR/Gert BR	SUN WED WED
20849/19449/18248	1400/20/40z 1400/20/40z 1400/20/40z	06 Mar 02 Mar 23 Mar	842 1 842 000 842 000			HFD BR BR	MON THU THU

April 2023:

6854/8154/9354	0030/0050/0110z 0030/0050/0110z 0030/0050/0110z	07 Apr 25 Apr 28 Apr	813 1 (468 206) 813 1 (7601 108) 813 1 (7601 108)	78513 94996.... 34487 88096.... 34487 88096 ... 63682 20535 000 000		BR/HFD BR Gert	FRI TUE FRI
7575/8175/9175	2100/20/40z 2100/20/40z 2100/20/40z 2100/20/40z 2100/20/40z 2100/20/40z 2100/20/40z 2100/20/40z 2100/20/40z 2100/20/40z	01 Apr 07 Apr 08 Apr 14 Apr 15 Apr 21 Apr 22 Apr 28 Apr 29 Apr	511 1 (9726 132) 511 1 (9726 132) 511 1 (9726 132) 511 1 (567 150) 511 1 (567 150) 511 1 (567 150) 511 1 (567 150) 511 1 (820 124) 511 1 (820 124)	82395 80371.... 82395 80371 ... 36443 04742 000 000 82395 80371.... 69499 98282.... 69499 98282.... 69499 98282.... 69499 98282.... 82018 75628.... 82018 75628....		BR Gert/HFD BR BR BR BR BR BR BR	SAT FRI SAT FRI SAT FRI SAT FRI SAT
11435/10598/9327	1800/20/40z 1800/20/40z 1800/20/40z	01 Apr 15 Apr 29 Apr	938 1 (7263 73) 938 1 (6304 75) 938 1 (2309 70)	08057 98859.... 19547 50322.... 07075 68834....		BR BR BR	SAT SAT SAT

11468/12168/13368	0600/20/40z 0600/20/40z	19 Apr 26 Apr	413 1 (574 79) 413 1 (545 87)	32470 41773 ... 66804 82796 000 000 91965 00233 ... 53722 06638 000 000	AB AB	WED WED
12139/11139/10239	2000/20/40z 2000/20/40z 2000/20/40z 2000/20/40z 2000/20/40z 2000/20/40z	03 Apr 06 Apr 10 Apr 17 Apr 20 Apr 27 Apr	234 1 234 1 (8198 127) 234 1 (9971 163) 234 000 234 000 234 1 (184 115)	90146 31156.... 84208 53235.... 15465 45619....	HFD BR BR BR BR BR	MON THU MON MON THU THU
13386/12189/11491	1110/30/50z 1110/30/50z 1110/30/50z 1110/30/50z	06 Apr 13 Apr 20 Apr 27 Apr	725 1 (1873 90) 725 1 (1266 90) 725 1 (5142 98) 725 1 (7898 96)	39336 46528.... 40905 26221.... 05040 64684.... 03890 22462....	BR BR BR Gert	THU THU THU THU
13391/13891/ - - -	0800/20/40z 0800/20/40z 0800/20/40z 0800/20/40z 0800/20/40z	04 Apr 07 Apr 14 Apr 25 Apr 28 Apr	387 000 387 000 387 000 387 000 387 000		BR HFD BR BR BR	TUE FRI FRI TUE FRI
13564/12164/11164	1900/20/40z 1900/20/40z 1900/20/40z 1900/20/40z 1900/20/40z 1900/20/40z	05 Apr 07 Apr 14 Apr 19 Apr 21 Apr 28 Apr	511 1 (548 159) 511 1 (548 159) 511 1 (7211 171) 511 000 511 000 511 1 (130 131)	34987 74375.... 34987 74375 ... 92769 47043 000 000 80119 25585.... 92417 02442....	BR Gert/HFD BR BR BR BR	WED FRI FRI WED FRI FRI
16321/15821/14721	1600/20/40z 1600/20/40z 1600/20/40z	02 Apr 12 Apr 19 Apr	387 1 (477 201) 387 1 (6823 232) 387 1 (168 214)	96354 65767 ... 52052 79536 000 000 23110 77393.... 86235 38404....	Gert/HFD BR BR	SUN WED WED
20971/20371/19271	1400/20/40z 1400/20/40z 1400/20/40z	03 Apr 06 Apr 20 Apr	932 1 932 1 (240 62) 932 1 (3431 74)	09146 30896.... 99710 93275....	HFD BR BR	MON THU THU

M12 13564/12164/11164kHz 1900/1920/1940z 07 Apr 2023
511 511 511 1 (R2m) 548 159 548 159
34987 74375 57648 32159 34866 75209 74398 02451 12057 10222 96706 24307 93477 69673 64535 30268 40587 46707 10701 74360 98874 83564 99050 83152 70151 46506 65662 43623 63579 64723 54040 47663 22047 99611 78511 42094 56654 86466 40222 09258 62278 40482 22625 40746 46202 50783 60251 34030 07372 45767 55674 69454 91279 98612 61105 63592 26185 60653 35460 35132 75549 72803 27448 18896 36843 78690 32753 64317 84156 99335 76246 41018 34515 54015 30340 01312 23045 88054 22692 27692 07601 81463 07338 34308 83525 37996 94825 26087 64673 22414 45742 99655 83197 25997 97060 31434 52150 53366 73309 90714 40771 40601 32280 70128 12510 86410 22852 71033 72190 57369 01470 24609 39352 41468 56044 00696 00978 05837 74906 11463 46226 11227 98474 74772 63286 26295 57798 69776 37180 91490 24801 23440 74237 38978 58941 34375 43093 15286 77485 98426 03176 43783 88549 29945 96333 82857 40157 96589 86170 22133 86411 99364 00831 52296 28236 40963 43223 92769 47043 000 000
<i>Courtesy Gert</i>

M12 7575/8175/9175kHz 2100/2120/2140z 07 Apr 2023
511 511 511 1 (R2m) 9726 132 9726 132
82395 80371 29522 40910 19260 92471 89689 45400 48412 16856 52453 55710 94345 13889 20097 65083 16265 92695 01098 95956 80387 21541 72042 86603 58762 58069 70507 24378 01030 77833 92536 90449 59326 18663 05242 25720 03085 41466 29945 42317 81126 83736 69200 57236 60308 16723 90356 68939 73563 85621 28573 06525 00266 46778 62065 75894 46513 55197 85429 09252 26997 46268 44266 85945 80847 27428 71398 02550 80318 86525 29537 14256 01511 01456 94449 12009 65938 87093 85445 75021 00341 38264 01101 28142 73307 41094 83283 71103 16893 57510 57558 42503 51027 95342 71401 81331 54465 16817 65545 21441 85614 94242 33792 58110 27237 02539 21131 05905 85732 05357 84651 99777 93145 81065 21372 32287 97606 76126 93991 62711 24213 39858 57856 17324 79448 03864 12037 53731 41708 07657 36443 04742 000 000
<i>Courtesy Gert</i>

M12 11468/12168/13368kHz 0600/0620/0640z 19 Apr 2023
413 413 413 1 (R2m) 574 79 574 79
32470 41773 23623 80345 35188 67139 33517 04380 09136 74003 93722 38027 54601 05398 76445 69851 41769 73871 49498 92816 76316 82837 57774 83598 25486 50638 60471 84939 80983 06862 77669 29668 04873 09634 07153 46819 33378 11351 30413 97514 34423 74988 16858 97560 13852 36808 53369 94778 86053 04595 77876 25887 09890 14922 98649 21866 41595 11829 40385 87875 17254 87560 13924 64771 27582 34045 32091 33261 68403 05163 66730 90996 16546 90931 34857 18058 55482 66804 82796 000 000
<i>Courtesy AB</i>

M12 11468/12168/13368kHz 0600/0620/0640z 26 Apr 2023
413 413 413 1 (R2m) 545 87 545 87
91965 00233 97835 55399 85367 35314 50702 93913 08231 26544 26967 75427 11979 19787 74824 68120 23523 78612 26897 91373 66000 42509 07907 77626 96943 78711 37670 71492 09559 92068 19360 30894 07862 67013 24593 06196 32507 80041 43206 44409 06217 80257 00463 95027 04291 58940 04006 39020 96853 10572 69946 31790 50306 20530 60753 77214 38369 98128 89150 45057 59177 09862 78885 62863 67305 71278 49472 87195 68111 33566 43643 75859 71467 87937 48120 11591 61538 43883 43321 77871 21458 45392 41051 25274 16428 53722 06638 000 000
<i>Courtesy AB</i>

M14 IA MCW / ICW Short 0

March 2023:

10243	0520z	01 Mar	952 (140 52) = 23640....	(Via SDR Japan)	HFD	WED
12211	0500z	01 Mar	952 (140 52) = 23640....	(Via SDR Japan)	HFD	WED

April 2023:

12211	0500z	24 Apr	952 (416 53) = 98613 37489 ... 29204 56402 = 416 53 00000		Gert	MON
11073	1300z	29 Apr	352 (897 60) = 36311 03118 ... 06085 52360 = 897 60 00000		AB	MON

<p>M14 12211kHz 0500z 24 April 2023</p> <p>952 (R4m) 416 416 53 53 ==</p> <p>98613 37489 16804 31161 82307 12124 42973 87808 98750 81348 29114 43502 26679 90863 38865 67097 38675 20073 26637 92631 89865 44278 42364 11848 24279 85268 78157 76183 28581 98705 99029 19183 87850 71783 24902 35250 23103 29562 56058 75684 15228 73444 59250 47945 45050 00209 56628 29072 04189 75052 84697 29204 56402 ==</p> <p>416 416 53 53 00000</p> <p style="text-align: right;"><i>Courtesy Gert</i></p>
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<p>M14 11073kHz 1300z 29 April 2023</p> <p>352 (R4m) 897 897 60 60 ==</p> <p>36311 03118 44987 18934 63732 48422 27238 82554 12311 86964 14503 73186 44726 83875 66102 30769 52338 29330 74783 03385 72320 67960 32532 70086 70515 56884 39458 79046 00949 07027 29174 68233 77944 87442 09126 60787 21770 97299 39296 50297 63760 35238 97723 32153 21848 20774 06281 06178 82438 47443 15140 12706 49579 72369 69366 09308 47343 71945 06085 52360 ==</p> <p>897 897 60 60 00000</p> <p style="text-align: right;"><i>Courtesy AB</i></p>
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M23 O ICW

The last transmission from M23 was aired on Saturday, 31 December 2022 although, as reported, the hourly 'dits' remained on-air continuously throughout January & February 2023. Active transmissions returned in March & as always, we are indebted to Ary, (AB), for his logs & for alerting us to this latest wave of activity.

The first log we received was for Tuesday, 07 March with increasing transmissions noted over the following days with hourly 'beeps' where no transmission was sent;

March 2023

5345	1456z	07 Mar	TST TST TST	(R30m)	TUE
5345	0951z	08 Mar	TST TST TST	(R30m)	WED
	1041z	08 Mar	000 000 000	(R15m) (Long Zeros)	WED
	1256z	08 Mar	030 030 030	(R10m)	WED
	1456z	08 Mar	TST TST TST	(R30m)	WED
5345	0951z	09 Mar	TST TST TST	(R30m)	THU
	1041z	09 Mar	000 000 000	(R15m) (Long Zeros)	THU
	1256z	09 Mar	030 030 030	(R10m)	THU
	1326z	09 Mar	541 541 541	(R12m)	THU
	1516z	09 Mar	333 333 333	(R12m)	THU
5345	0856z	10 Mar	541 541 541	(R12m)	FRI
	1031z	10 Mar	591 591 591	(R12m)	FRI
	1256z	10 Mar	ST3 ST3 ST3	(R20m)	FRI
	1326z	10 Mar	541 541 541	(R12m)	FRI
5345	0856z	11-19 Mar	541 541 541	(R12m)	SAT - SUN
	1231z	11-19 Mar	591 591 591	(R12m)	SAT - SUN
	1256z	11-19 Mar	ST3 ST3 ST3	(R20m)	SAT - SUN
	1326z	11-19 Mar	541 541 541	(R12m)	SAT - SUN
	1756z	11-19 Mar	591 591 591	(R12m)	SAT - SUN
	1856z	11-19 Mar	ST3 ST3 ST3	(R20m)	SAT - SUN
5345	0855z	20 - 27 Mar	541 541 541	(R12m)	MON - MON
	1231z	20 - 27 Mar	591 591 591	(R12m)	MON - MON
	1255z	20 - 27 Mar	ST3 ST3 ST3	(R20m)	MON - MON
	1325z	20 - 27 Mar	541 541 541	(R12m)	MON - MON
	1500z	20 - 27 Mar	SET SET SET	(R30m)	MON - MON
	1755z	20 - 27 Mar	591 591 591	(R12m)	MON - MON
	1855z	20 - 27 Mar	ST3 ST3 ST3	(R20m)	MON - MON
5345	0855z	28 Mar	541 541 541	(R12m)	TUE
	1230z	28 Mar	591 591 591	(R12m)	TUE
	1255z	28 Mar	ST3 ST3 ST3	(R20m)	TUE
	1325z	28 Mar	541 541 541	(R12m)	TUE
	1405z	28 Mar	SET SET SET	(R30m)	TUE
	1700z	28 Mar	591 591 591	(R12m)	TUE
	1800z	28 Mar	ST3 ST3 ST3	(R20m)	TUE

5345	0855z	29 Mar	541 541 541	(R12m)	WED
	1135z	29 Mar	591 591 591	(R12m)	WED
	1200z	29 Mar	ST3 ST3 ST3	(R20m)	WED
	1230z	29 Mar	541 541 541	(R12m)	WED
	1405z	29 Mar	SET SET SET	(R30m)	WED
	1700z	29 Mar	591 591 591	(R12m)	WED
	1800z	29 Mar	ST3 ST3 ST3	(R20m)	WED
5345	0800z	30 Mar	541 541 541	(R12m)	THU
	1135z	30 Mar	591 591 591	(R12m)	THU
	1200z	30 Mar	ST3 ST3 ST3	(R20m)	THU
	1230z	30 Mar	541 541 541	(R12m)	THU
	1405z	30 Mar	SET SET SET	(R30m)	THU
	1700z	30 Mar	591 591 591	(R12m)	THU
	1800z	30 Mar	ST3 ST3 ST3	(R20m)	THU

April 2023

5345	0800z	01 - 10 Apr	541 541 541	(R12m)	MON - MON
	1135z	01 - 10 Apr	591 591 591	(R12m)	MON - MON
	1200z	01 - 10 Apr	ST3 ST3 ST3	(R20m)	MON - MON
	1230z	01 - 10 Apr	541 541 541	(R12m)	MON - MON
	1405z	01 - 10 Apr	SET SET SET	(R30m)	MON - MON
	1700z	01 - 10 Apr	591 591 591	(R12m)	MON - MON
	1800z	01 - 10 Apr	ST3 ST3 ST3	(R20m)	MON - MON
5345	0800z	11 - 30 Apr	541 541 541	(R12m)	TUE - SUN
	1135z	11 - 30 Apr	591 591 591	(R12m)	TUE - SUN
	1230z	11 - 30 Apr	541 541 541	(R12m)	TUE - SUN
	1405z	11 - 30 Apr	SET SET SET	(R30m)	TUE - SUN
	1700z	11 - 30 Apr	591 591 591	(R12m)	TUE - SUN

Many thanks to AB, BR HFD & PoSW for the logs – With a special mention to Ary, AB, for the heads-up, extensive logs & for correcting my errors. (Ed)

Chart of M23 Activity – (Due to nature of monitoring there may be some omissions or errors)

	07 Mar	08 Mar	09 Mar	10 Mar	11 – 19 Mar	20 - 27 Mar	28 Mar	29 Mar	30 Mar		01 – 10 Apr	11 – 30 Apr
0800z									541		541	541
0856z				541	541	541	541	541				
0951z		TST	TST									
1031z				591								
1041z	000	000	000									
1135z								591	591		591	591
1200z								ST3	ST3			
1230z					591	591	591	541	541		541	541
1256z	030	030	030	ST3	ST3	ST3	ST3					
1326z			541	541	541	541	541					
1405z							SET	SET	SET		SET	SET
1456z	TST	TST										
1500z						SET						
1516z			333									
1700z							591	591	591		591	591
1756z					591	591						
1800z							ST3	ST3	ST3		ST3	
1856z					ST3	ST3						

Clock used by M23 is not locked to a time standard. As month progressed the transmissions appeared slightly earlier each day & by 22 March the H+56 transmissions were now H+55. A reset looked to have been performed on 01 April, (PC clock?), as the new schedules were on time & hourly 'beeps' had returned to being on the hour.

In addition two short digital transmissions were often heard on the frequency. These were much weaker than M23 signals, so likely unrelated.

1245z Short digi sig (30s)
1250z Short digi sig (30s)

Peter, (PoSW), was also monitoring the M23 transmissions. Here are his detailed logs & observations. (Note that Peter has logged the 1041z transmission as 555, vs 000 – It's a matter of interpretation as to which is correct. One uses 'dits' while the other uses 'Dashes'. So on to Peter's report:

As regards the number station scene, perhaps the most noteworthy point of the last couple of months is the return of M23 CW on 5345, noticed by chance in early March and has been showing up daily since albeit with several changes to the timing and contents.

A somewhat detailed M23 log shown below.

Return of M23 CW to 5345:-

The M23 Morse station which appears on 5345 kHz from time to time sending a slow repetitive group of three numbers, letters or a combination of the two showed up in early March. It had last been heard in December of last year and apparently ended its run on the 31st of that month, not being heard in January.

07-Mar-23, Tuesday:-

1046 UTC, 5345 kHz, M23 in progress sending "555", stopped around 1056z followed by a long key-down dash.
 1256 UTC, starting up with "030" until 1306z.
 1456 UTC, starting up, now sending "TST", stopped at 1526z approx.

09-Mar-23, Thursday:- heard the following:-

0951 to 1021 UTC, "TST".
 1041 to 1056 UTC, "555".
 1256 to 1306 UTC, "030".
 1326 to 1338 UTC, "541"
 No sign of "TST" at 1456z which had been heard on the 7th.
 1516 UTC, starting up with "333" until 1528z.

10-Mar-23, Friday, some changes:-

0951 UTC, no sign of "TST", a brief "blip" heard at approx. 0956z and nothing heard of "555" at 1041z.
 1231 UTC, starting up with "591" until 1243z.
 1326 UTC, starting up with "541", stopped at approx. 1338.
 1756 UTC, starting up with "591" until 1808.
 1856 UTC, starting up with "ST3", stopped just before 1916.

11-Mar-23, Saturday, close to a radio tuned to 5345 for most of the day:-

0903 UTC, in progress with "541", stopped 0908z.
 1231 UTC, starting up with "591", stopped 243z.
 1256 UTC, starting up with "ST3", stopped 1316z
 1326 UTC, starting up with "541", stopped 1338z.
 1756 UTC, starting up with "591", stopped 1808z.
 1856 UTC, starting up with "ST3", missed the ending.

Appeared to follow this schedule on the following days although only a couple of transmissions were monitored on each day - except that another sending was noted later in the month:-

22-Mar-23, Wednesday:- 1504 UTC, in progress sending "SET", must have missed this mid-afternoon transmission unless it is new.**24-Mar-23, Friday:-** Another day spent close to a radio on 5345, seven transmissions logged:-

0856 to 0908, "541".
 1231 to 1243, "591".
 1256 to 1316, "ST3".
 1326 to 1338, "541".
 1501 to 1531, "SET".
 1756 to 1808, "591".
 1856 to 1916, "ST3".

British Summer Time began on Sunday 26- March and it was noted that M23 stayed on UTC and so showed up one hour later local time on the 26th and 27th, but then moved by one hour:-

28-Mar-23, Tuesday:- 1420 UTC, in progress with "SET" an hour earlier UTC but at the same local time as that before BST started.

1701 UTC, starting up with "591", moved by one hour except that a correction has been made to bring the start time after the hour instead of four minutes before it.
 1801 UTC, starting up with "ST3".

On the following days the schedule was similar to that shown above on the 24th except that the timing had shifted as observed on the 28th. Carried on into April, monitoring scaled down to checking just a couple of transmissions each day as circumstances permitted, usually the first sending, "541" at 0800z and the mid-afternoon "SET" at 1400z, the assumption was that if two transmissions were still running then the others would too. However, this turned out not to be the case; a day's monitoring on 18-April showed that the "ST3" at 1200 and 1800 UTC had gone. The next occasion an opportunity arose to spend a day in earshot of a radio tuned to 5345 was on:

23-Apr-23, Sunday:-

0800 to 0812, "541".
 1135 to 1147, "591"
 1230 to 1242, "541"
 1405 to 1435, "SET"
 1700 to 1712, "591".

Rounded off to the nearest minute, times about ten or twelve seconds before. Still adhering to this schedule in the last days of April, start-stop times becoming earlier.

It must all mean something to someone!

Thanks for your detailed report, Peter – Ed

M76 A detailed analysis can be found in ENIGMA Newsletter 93 – May 2016.

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

Many thanks again to Ary, (AB), for news of M76 activity, a station not reported for a very long time. I used to try for this several years ago on 3280kHz at 1650z – but always a difficult copy here and only audible part of the year. With the increased numbers of SDRs now available this would have been much easier. There was also an early sched at 0400z on 3294kHz but I never made that one! (*Ed*)

Ary reports that there are currently two daily schedules at 0500z & 1750z - Both on 10858kHz.

M76 Logs

March 2023

Early Sched

10858 0500z 21 Mar 6Q1L DE KYuUC QTC 234 38 = Msgs: 234 38 = 230 20 = 229 21 = 220 65 = AB TUE
219 68 = 000 18 =

Late Sched

10858 1741z 05 Mar 8RAU DE TO6N QTC 185 29 = Msgs: 185 29 = 184 14 = ... 36 = 178 41 = AB SUN
Weak & deep fading. Partly unreadable 177 53 = 176 55 = 173 28 = 000 18 =

10858 1740 - 1835z 07 Mar JUR3 DE P9OI QTC 189 32 = Msgs: 189 32 = 184 42 = 181 36 = 178 41 = AB TUE
177 53 = 176 55 = 173 27 = 000 18 =

10858 1750z 20 Mar MA76 DE S7YaYu QTC 227 34 = Msgs: 227 34 = 220 65 = 219 68 = 000 18 = AB MON

10858 1750z 23 Mar EJyU2 DE IKCF QTC 235 31 = Msgs: 235 31 = 230 20 = 229 21 = 220 65 = AB THU
219 68 = 00018 =

April 2023

M76 is still active at 0400z and 1650z on 10858 kHz

10858 1650z 18 Apr BGSS DE F7YD QTC 320 33 = Msgs: 320 33 = 313 24 = 312 32 = 309 35 = AB TUE
308 41 = 307 44 = 306 41 = 000 22 =

10858 1650z 26 Apr G5PU DE WJUK QTC 352 27 = Msgs: 352 27 = Followed by several msgs... AB WED

M76 10858kHz 0500z 23 March 2023

6Q1L DE KYuUC

6Q1L 6Q1L 6Q1L DE KYuUC KYuUC QTC

234 38 =
26310 05214 90080 30063 92164 15409 64118 31786 01256 59901
12092 10340 03131 92873 85640 21664 61583 62171 64817 26430
89363 61308 9XXXX RRRRR 247XX WWWW 72352 27135 22721
529XX DDDDD 32523 77705 07513 91549 99160 15XXX NNNNN =

230 20 =
40545 79409 38505 95133 69530 92236 50581 46619 01940 19993
99751 54930 93093 70417 56477 03201 96907 14657 93125 1437X =

229 21 =
40545 79409 37505 95133 69530 92236 50581 46619 01940 19993
99501 53989 19993 79855 68178 75647 70321 78690 65793 12514
34XXX =

(Continued in next column)

220 65 =
40545 79409 36505 94733 69530 92020 36906 05059 30937 98013
99449 30930 06336 99513 36199 50593 09379 80139 94593 09300
63369 95233 61995 05930 93696 01399 44930 93036 99533 36218
50593 09369 60139 93093 99600 63369 95433 69530 42661 90193
09311 99933 15494 11999 34901 93093 01549 46199 93990 09851
54946 19993 99009 83154 94019 99329 00989 19993 41549 40199
93265 81610 64482 18353 2437X =

219 68 =
40545 79409 35505 94733 69530 92020 36906 05059 30937 98013
99449 30930 06336 99513 36199 93093 79801 39945 93093 00633
69952 33619 99309 36960 13994 49309 30063 36995 33362 18505
93093 69601 39930 93996 00633 69954 33695 30920 42661 90193
09331 99938 15493 09311 99934 90193 09311 99933 15494 11999
34900 98919 99341 54940 19993 29009 83154 94019 99329 00980
19993 31549 30931 19993 46581 61064 18543 7XXXX =

000 18 =
13093 11999 33199 93519 99371 99939 19994 11999 43199 94519
99471 99949 19995 11999 53199 95519 99571 99959

AR

Courtesy AB

Morse Stations - Not Number Related

M51 XIX

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

No reports

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

6825 2218z 29 Mar 5 Ltr grps E WED

M89 O

This is a summary of activity from the M89 stations.

Traffic & Operator Chat from M89

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

3888	4220	5079
	4256	5091
	4283	5103
	4653	5363
	4835	5612
		5689
		5883

New Scheds for Mar / Apr 2023:

From logs submitted from JPL

4508	Switched back to previous Round Slip	First heard 13 March	V 9GWQ (x3) DE J2PX (x2) vs LHF5 DE 2EDK
5913	New Round Slip & frequency	First heard 24 March	VVV (x3) TMN (x3) DE GJC (x2)
4623	New Round Slip & frequency	First heard 08 April	V N45D (x3) DE JD3L (x2)

Chart of M89 Freq & Call signs heard in Mar / Apr 2023

New Scheds shown in Bold Type

From logs submitted from JPL

<u>Freq in KHz</u>	<u>Call Slip</u>
3565//NRH	V BSA5 (x3) DE TP4C (x2)
3565//4718	V BSA5 (x3) DE TP4C (x2)
3565//4718//6378	V BSA5 (x3) DE TP4C (x2)
4508	V 9GWQ (x3) DE J2PX (x2) V LHF5 (x3) DE 2EDK (x2)
4623	V N45D (x3) DE JD3L (x2)
4720//5150	V WNF(x3) DE FXM (x2) (R5) (Hand sent)
4726	V QPL(x3) DE 4WQ (x2) (R5) QSA ? K

<u>Freq in kHz</u>	<u>Call Slip</u>
4860// 6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) QSA ? K
5913	VVV (x3) TMN (x3) DE GJC (x2)
6378//7045	V BSA5 (x3) DE TP4C (x2)
7620//8350	V WNF(x3) DE FXM (x2) (R5) (Hand Sent)

Courtesy JPL

4256	1854z (IP) 12 Apr	MSG NR 0060 CK 121 22 0413 0220 RMKS 0555 TO 0055 K	(Remote tuner South Korea)	JPL	WED
5363	1914z (IP) 24 Mar	R DE K6YT K R IEC BT 2540 AR K	(Control station N/H on this freq.) (Related to Exercise traffic)	(Remote tuner Japan)	JPL FRI

M89	5363kHz	1934 (IP) - 1941z	20 March 2023
R QSL 0335 K			(IP -1935z)
HR EE RPT K		(Control station N/H on this frequency)	
HR WK NR 2357 K			(1936z)
R DE I7JJ K			
R D EEEEE R DE I7JJ K			
R QSL 0336 K			
R HR WK NR 2120 K			(1937z)
R DE S7EI K			
R QSA 2 K			
R QSL 0338 K			(1938z)
R DE P8AF K			
R QSL 0340 K			
R DE .6YT K			
R QSL 0339 K			(1940z)
R DE F4QQ K			
R QSL 0340 K			(1941z)
SK SK			
M89	5091kHz	1436 (IP) - 1437z	06 April 2023
RPT 76W TO 78W K			(IP - 1436z)
R QSL 2237 QSL 2237 K		(Other station N/H on this frequency)	
LSB WK LSB WK K			(1437z)
(Switched to voice - Chinese - Male - LSB) (Now V26 Sked)			
M89	4256kHz	1854 (IP) - 1855z	12 April 2023
R HR MSG GA K			(IP - 1853z)
R MSG NR 0060 CK 121 22 0413 0220 RMKS 0555 TO 0055 K			(1854z)
BT T577 576A TA36 6TA5 56AD TATA NA7D D757 TTA5 TA57 6DNU 35DA 46T4 6U3T			
(Cont'd - 1855z)			

Courtesy JPL

M89	5566kHz	1454 - 1346z	06 April 2023
BT QRW U MSG AGN HW ? AR			(IP - 1454z)
BT QRJ U MSG AGN HW ? AR			(1455z)
BT QSB U QSY TO 01 AR		(Other station N/H on this frequency)	
BT QSB U QSY TO 01 AR K			
BT RPT 01W TO 03W AR			
BT RPT 01W TO 03 W AR			(1456z)
BT QSB CHG OLD HAND WK AR		(Fading a bit now)	
BT QSD PSE CHG OLD HAND WK AR			(1457z)
BT QRM PSE QSY TO 02 AR			
BT QRM PSE QSY TO 02 AR			(1458z)
BT PSE RPT MSG PBL HW ? AR			
BT PSE RPT MSG PBL HW ? AR			(1459z)
BT HR MSG GA PSE CY HW ? AR			(1500z)
BT HR MSG GA PSE CY HW ? AR			(1501z)
BT BOZ CHG DMSG WK HR ? AR			(1502z)
BT BOZ CHG DMSG WK HR ? AR			(1503z)
BT PSE U LL HR HW ? AR			(1504z)
BT PSE U LL HR HW ? AR			(1505z)
BT U AT 01 CHAN KPI			(1506z)
BT U AT 01 CHAN KPI AR			(1507z)
BT MSG MUTI U AGN HW ? AR			(1508z)
BT MSG MUTI U AGN HW ? AR K			(1509z)
BT PSE QRW 4177 AT 1200 K PSE AR			(1510z)
BT PSE QRW 4177 AT 1200 K PSE AR			(1511z)
BT HR WK NR 002 AR			(1512z)
BT HR WK NR 002 AR			(1513z)
BT NIL SK GB AR			(1514z)
BT RAT 150 U . AGN HR ? AR			(1515z)
BT RATE 150 SX U 7G AGN HR ? AR			(1516z)
BT QSA 1 PSE U CHG FREQ AR			(1517z)
BT QSA 1 PSE U CHG FREQ AR (1509z)			(1518z)
BT PSE TC . BL AR			(1519z)
BT PSE . C MSG ? BL AR			(1520z)
BT BOZ CHG CW WK AR (1510z)			(1521z)
BT BOZ CHG CW WK AR			(1522z)
BT PSE NOTE TIME AR (1511z)			(1523z)
BT PSE NOTE TIME AR			(1524z)
BT QRJ PSE U QRS HW ? AR			(1525z)
BT QRJ PSE U QRS HW ? AR (1512z)(Silent - unable to continue monitoring - 1516z)			(1526z)

Courtesy JPL

M95 O XSV, XSV70, XSV85

M95 Morse Logs (Bold type indicates new logging)

3642//NRH	Call Sign 3A7D	(Active daily - only first marker log has been included)			
3642//7602	Call Sign 3A7D	(Active daily - only first marker log has been included)			
4178//NRH	Call Sign S2DJ 2005z	Believe this to be new Round Slip and freq for YHxD DE SAQC 02 Mar V XP5B (x3) DE S2DJ (x2)	(Remote tuner Novosibirsk)	JPL	THU
4178//7517	Call Sign S2DJ 1912z	Believe this to be new Round Slip and freq for YHxD DE SAQC 13 Mar V XP5B (x3) DE S2DJ (x2)	(Remote tuner Novosibirsk)	JPL	MON
	1450z	05 Apr V XP5B (x3) DE S2DJ (x2)	(Remote tuner Novosibirsk)	JPL	WED
4243//NRH	Message number differs from current XSV70 and XSV85 message numbers.				
4243//9054	Message number differs from current XSV70 and XSV85 message numbers. 1147 (IP) - 1150z	23 Mar VVV HR 7G TO YR PSE CY	(Remote tuner Japan)	JPL	THU
	1144 (IP) - 1152z	23 Apr NR 029 CK 38 35 0423 1528 BT	(Remote tuner Japan)	JPL	SUN
4364//8073	Call Sign XSV85 1130 - 1146z	23 Mar NR 0263 CK 279 35 0323 16.. BT	(Remote tuner Hong Kong)	JPL	THU
	1131 - 1140z	08 Apr NR 0296 CK 253 35 0408 1553 BT	(Remote tuner Hong Kong)	JPL	SAT
5651//12039	Call sign S2DJ 1215z	23 Mar V XP5B (x3) DE S2DJ (x2) (IP - Cont'd)	(Remote tuner Novosibirsk)	JPL	THU
7517	Call sign S2DJ 2020z	17 Apr V XP5B (x3) DE S2DJ (x2) (IP - cont'd)	Good	RB	MON
8073//NRH	Call Sign XSV85 1130z	23 Apr NR 0331 CK 242 35 0423 1617 BT	(Remote tuner Hong Kong)	JPL	SUN
10180	Call Sign 3A7D	(Active daily - only first marker log has been included)			
10722//NRH	Call Sign 3A7D 1048z	01 May YHxD (x3) DE SAQC (x2)	(Remote tuner Khabarovsk)	JPL	FRI

M95 4364//8073kHz 1130z (IP) 23 March 2023

BNGC DE XSV85

(In Progress at 1130z)
In Chinese digital 4+4 QPSK 75/3000 - USB vice LSB 1130z
Operator realized mistake and switched to LSB 1135z
Switched to CW - Hand sent 1144z

V BNGC (x3) DE XSV85 (x2) (Cont'd - 1144z)
HR MSG GA PSE CY (1145z)
NR 0263 CK 279 35 0323 16.. BT (1145z)
TU4 3U6 3AN 3U7 TAU 773 353 (Cont'd - 1146z)

M95 4364//8073kHz 1131z (IP) 08 April 2023

BNGC DE XSV85

(In Progress at 1131z)
In Chinese digital 4+4 QPSK 75/3000 - USB vice LSB 1131z
Switched to CW - Hand sent 1138z

V BNGC (x3) DE XSV85 (x2) (Cont'd - 1138z)
HR MSG GA PSE CY (1139z)
NR 0296 CK 253 35 0408 1553 BT
TTD 3U6 3AN 3U7 TAU 773 353 4T3 NN3 447 46D 3D5 (Cont'd - 1140z)

Courtesy JPL

M95 4243//9054kHz 1144z 23 April 2023

(In Progress at 1144z)
In Chinese digital 4+4 QPSK 75/3000 - LSB 1144z
Switched to CW - Hand sent 1148z

VVV HR 7G TO YR PSE CY (1148z)
NR 029 CK 38 35 0423 1528 BT
5AA UTT TU3 (Cont'd - some fading - 1152z)

M95 8073kHz 1130z 23 April 2023

BNGC DE XSV85

Into Voice - Chinese - Female 1130z
Switched to Chinese digital 4+4 QPSK 75/3000 - USB vice LSB 1131z
Switched to CW - Hand sent 1138z

V BNGC (x3) DE XSV85 (X2) (Cont'd - 1138z)
HR MSG GA PSE CY (1139z)
NR 0331 CK 242 35 0423 1617 BT
T23 3U6 3AN 3U7 TAU 773 TA7 773 353 35N (Cont'd - 1142z)

Courtesy JPL

Marker Beacons (MX MXI)

The 80m Beacon Activity Ceases

The last observation of "D"/Sevastopol on 3593.7 kHz was made on 27/02/23. It is assumed that this new schedule has come to an end as previous outages during the month of February only lasted a single night. Either this propagation beacon is no longer operationally required (Sevastopol is no longer monitoring any associated 80 meters working channel) or the transmitter has suffered a fault. Given that the transmitter was being manually switched on for this new schedule it is also possible that the persons responsible are not present and this duty has not been passed on.

The return to life of the 3594 kHz cluster has been short lived. I did not notice any signals whilst operating digital modes at the end of January, signals were apparent on the 2nd of February. It is possible that operation started on the 1st. Initially "D" was joined by "S" Severomorsk but this did not last long - "S" was only noted on the air from 2/2 to the 5/2. The other former members of this cluster Kaliningrad (P) and Moscow (C) did not make an appearance.

On Friday, 12 March the beacon at Sevastopol 'D' reappeared after 14 days absence making a surprise return to 3594 kHz at 20:58, but has not been heard since.

Common and Precious

The pirate beacon 'VVV DE COMMON AND PRECIOUS' noted by Robert, (RB), on 4095.4kHz in CW & RTTY on Sunday, 05 March

Beacon Logs:

4031		08 Apr	MXV	CW	Beacon "V"	Khiva? (This frequency formerly used by P/Khalingrad)		RB		WED
4557.7	0328z	12 Apr	MX	CW	Beacon "P"	Kaliningrad	Good	chpa		WED
5153.7	2100z	01 Mar	MXI	CW	Beacon "D"	Sevastopol	With faulty keying DDDDDDT	RB		WED
		30 Mar	MXI	CW	Beacon "D"	Sevastopol	With faulty keying H, S & T at intervals	RB		THU
5153.8		31 Mar	MXI	CW	Beacon "P"	Kaliningrad		RB		FRI
5153.9	2105z	02 Mar	MXI	CW	Beacon "S"	Severomorsk		RB		THU
5154		01 Apr	MXI	CW	Beacon "C"	Moscow		RB		SAT
5154.1		06 Mar	MXI	CW	Beacon "A"	Astrakhan		RB		SUN
5156.7		06 Mar	MX	CW	Beacon "L"	St Petersburg		RB		MON
	0506z	07 Mar	MX	CW	Beacon "L"	St Petersburg (Fast)	Good	chpa		TUE
	0421z	01 Apr	MX	CW	Beacon "L"	St Petersburg	Moderate	chpa		SAT
	0334z	12 Apr	MX	CW	Beacon "L"	St Petersburg	Good	chpa		WED
5292.7	0423z	01 Apr	MXI	CW	Beacon "D"	Sevastopol	Moderate	chpa		SAT
7039.4		03 Mar	MX	CW	Beacon "M"	Magadan	SDR Russia	RB		FRI
7508.7		03 Mar	MXI	CW	Beacon "D"	Sevastopol		RB		FRI
7508.8		03 Mar	MXI	CW	Beacon "P"	Kaliningrad		RB		FRI
7508.9		03 Mar	MXI	CW	Beacon "S"	Severomorsk		RB		FRI
7509.1		03 Mar	MXI	CW	Beacon "A"	Astrakhan		RB		FRI
8494.7		30 Mar	MXI	CW	Beacon "D"	Sevastopol	With faulty keying	RB		THU
8494.8		31 Mar	MXI	CW	Beacon "P"	Kaliningrad		RB		FRI
8494.9		31 Mar	MXI	CW	Beacon "S"	Severomorsk		RB		FRI
		13 Apr	MXI	CW	Beacon "S"	Arkhangelsk		HFD		THU
8495		03 Mar	MXI	CW	Beacon "C"	Moscow		RB		FRI
8495.1		30 Mar	MXI	CW	Beacon "A"	Astrakhan		RB		FRI
8497.8		03 Mar	MX	CW	Beacon "L"	St Petersburg		RB		FRI
10871.7	2100z	01 Mar	MXI	CW	Beacon "D"	Sevastopol	With faulty keying DDDDDDT	RB		WED
10871.9	2100z	01 Mar	MXI	CW	Beacon "S"	Severomorsk		RB		WED
		13 Apr	MXI	CW	Beacon "S"	Arkhangelsk		HFD		THU
10872		31 Mar	MXI	CW	Beacon "C"	Moscow		RB		FRI
10872.1		03 Mar	MXI	CW	Beacon "A"	Astrakhan	Slow	RB		FRI
10872.3	2100z	02 Mar	MXI	CW	Beacon "K"	Petropavlovsk - Kamchatsky		RB		THU
13527.7		31 Mar	MXI	CW	Beacon "D"	Sevastopol		RB		FRI
13527.9		31 Mar	MXI	CW	Beacon "S"	Severomorsk		RB		FRI
13528		28 Mar	MXI	CW	Beacon "C"	Moscow		RB		TUE
13528.1		29 Mar	MXI	CW	Beacon "A"	Astrakhan		RB		WED
13528.3		21 Mar	MXI	CW	Beacon "K"	Astrakhan		RB		TUE
13528.4		21 Mar	MXI	CW	Beacon "M"	Astrakhan		RB		TUE
16331.7		31 Mar	MXI	CW	Beacon "D"	Sevastopol		RB		FRI
16331.9		31 Mar	MXI	CW	Beacon "S"	Severomorsk		RB		FRI
	1417z	13 Apr	MXI	CW	Beacon "S"	Severomorsk		PLdn		THU
	1430z	20 Apr	MXI	CW	Beacon "S"	Severomorsk	(Audible under E07 Tx on 16331kHz)	Gary/PLdn		THU
16332.0		28 Mar	MXI	CW	Beacon "C"	Moscow		RB		TUE
20047.7		31 Mar	MXI	CW	Beacon "D"	Sevastopol		RB		FRI
20047.9		13 Apr	MXI	CW	Beacon "S"	Arkhangelsk		HFD		THU
20048		31 Mar	MXI	CW	Beacon "C"	Moscow"		RB		THU

Here are Robert's, (RB), beacon logs in full;

March 2023

"D" has not come up for its usual schedule on 80 meters for a couple of days now. Keying/message errors appear to be frequent occurrence across all the Sevastopol frequencies yet have not been noted for any of the stations.

27/02/23. "D" start up at 20:53. Normal keying.

28/2/23. 21:00 onwards: D 3593.7 kHz no sigs. "D" active on 5153.7 kHz (The only station active in this cluster). "S" observed on 10871.9 kHz (No other stations in this cluster). Dasher/"T" active on 4183.4 and 4184.7 kHz.

01/3/23. 21:00 onwards: D 3593.7 kHz no sigs. "D" on 5153.7 kHz active with faulty keying : "DDDDDD T". The same keying is present on 10871.7 kHz. "S" present on 10871.9 kHz. Dasher/"T" active on 4183.4 and 4184.7 kHz.

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The last observation of "D"/Sevastopol on 3593.7 kHz was made on 27/02/23. It is assumed that this new schedule has come to an end as previous outages during the month of February only lasted a single night. Either this propagation beacon is no longer operationally required (Sevastopol is no longer monitoring any associated 80 meters working channel) or the transmitter has suffered a fault. Given that the transmitter was being manually switched on for this new schedule it is also possible that the persons responsible are not present and this duty has not been passed on.

The return to life of the 3594 kHz cluster has been short lived. I did not notice any signals whilst operating digital modes at the end of January, signals were apparent on the 2nd of February. It is possible that operation started on the 1st. Initially "D" was joined by "S" Severomorsk but this did not last long - "S" was only noted on the air from 2/2 to the 5/2. The other former members of this cluster Kaliningrad (P) and Moscow (C) did not make an appearance.

Faulty keying has been present on a couple of occasions, albeit only on the beacons operated by Sevastopol and across all operational frequencies simultaneously. This usually takes the form of additional dots or dashes. It is hard to see how these would be generated by a solid state keying device - is it possible that the keying is done mechanically?

02/3/23. 21:05. 3rd day of "no sigs" from "D" on 80 meters. * "S" present on 5153.9kHz. * D, S and K active on 10872. * Dasher/"T" active on 4183.4 and 4184.7 kHz.

03/3/23. * 7039.4: M (Magadan). Heard on Tambov (RU) tuner whilst monitoring my own QRSS on 7039.7. * D,P,S and a weak A (7509.1) present on the 7509 cluster. * C on 8495. L on 8947.8. * 10871: D, A (with slow keying).

04/3/23. * Dasher/"T" active on 4183.4 and 4184.7 kHz. * D, S on 5153 cluster. * 7039.4: M. * 7508 cluster: P, S, A. * 8497.8kHz : L. * 10871 Cluster: D, S, 10872.3: K (Petropavlovsk - Kamchatsky).

05/3/23 * Dasher/"T" active on 4183.4 and 4184.7 kHz. * D,A on 5153 cluster. * 7039.4: M. 7508 cluster: D, P, S, A. * 8497.8: L. * 10871 Cluster: S, K.

Interesting extra: * 4095.4 kHz: CW and RTTY - VVV DE COMMON AND PRECIOUS - pirate beacon.

06/3/23. *Dasher/T absent. * D,A on 5153 kHz cluster. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: D,P,S,A. * 8497.8 kHz: L. * 10871 kHz Cluster: D,S.

07/3/23. No observations.

08/3/23. * Dasher/"T" active on 4183.4 and 4184.7 kHz. * D,S on 5153 cluster. * 5156.8 KHz L absent. * 7039.4 kHz: M. * 7508 kHz Cluster: D,P,S,A. * 8495 kHz cluster: S,C. * 8497.8 kHz: L. * 10871 kHz Cluster: D,S,A,K. * 13527.9 kHz: S

09/3/23 * 19:00 - 19:20 4171 KHz CW number/letter groups at c. 1-2 minute intervals - M21 Rus air defence? * Dasher/"T" active on 4183.4 and 4184.7 kHz. * D,S,A on 5153 cluster. * 7039.4 kHz: M. * 7508 kHz Cluster: D,P,S,A. * 8495 kHz cluster: C. * 10871 kHz Cluster: D,S,A,K (K= four repeats and a pause). * 13527 kHz cluster: D,S,C,A,F,K

10/3/23 * Dasher/"T" active on 4183.4 and 4184.7 kHz. * D on 5153 cluster. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: D,P,S,A. * 8495 kHz cluster: C. * 10871 kHz Cluster: D,S,A,K (K= four repeats and a pause). * 13527 kHz cluster: D,S,A.

11/3/23 * Dasher/"T" active on 4183.4 and 4184.7 kHz. * D,S on 5153 cluster. * 7039.4 kHz: M. * 7508 kHz Cluster: D,P,S,A. * 10871 kHz Cluster: D,S,A. * 13527 kHz cluster: D.

Of note is the return to 80 meters of Sevastopol/D this evening after 14 days absence.

12/3/23 * "D" made a surprise return to 3594 kHz at 20:58. * Dasher/"T" active on 4183.4 and 4184.7 kHz. * D,S,A on 5153 cluster. * 7039.4 kHz: M. * 7508 kHz Cluster: D,P,S,A. * 8497.8 kHz cluster: L. * 10871 kHz Cluster: D,S,A, * 13527 kHz cluster: D,S,C,A.

13/3/23 * No sigs from D on 3593.7 kHz. * Dasher/"T" active on 4183.4 and 4184.7 kHz. * D,S,A on 5153 cluster. * 7039.4 kHz: M. * 7508 kHz Cluster: D,P,S,A. * 8495 cluster: S. * 8497.8 kHz: L. * 10871 kHz Cluster: D,S,A,K (K = four repetitions and a pause).

14/3/23 * No sigs from D on 3593.7 kHz. * Dasher/"T" active on 4182, 4183.4 and 4184.7 kHz. * D,S,A on 5153 cluster. * 7039.4 kHz: M. * 7508 kHz Cluster: D,P,S,A. * 8495 cluster: S. * 8497.8 kHz: L. * 10871 kHz Cluster: D,S,A,K (K = four repetitions and a pause).

15/3/23 * No sigs from D on 3593.7 kHz. * Dasher/"T" active on 4183.4 and 4184.7 kHz. * D,S,A on 5153 cluster. * 7039.4 kHz: M. * 7508 kHz Cluster: D,S,A. * 8495 cluster: S,A. * 8497.8 kHz: L. * 10871 kHz Cluster: D.

16/3/23 * No sigs from D on 3593.7 kHz. * Dasher/"T" active on 4183.4 and 4184.7 kHz. * D,S on 5153 cluster. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S. * 8495 cluster: C. * 8497.8 kHz: L. * 10871 kHz Cluster: D,S,A,K (K = four repetitions and a pause).

17/3/23 * No sigs from D on 3593.7 kHz. * Dasher/"T" active on 4183.4 and 4184.7 kHz. * D,S,A on 5153 cluster. * 7039.4 kHz: M. * 7508 kHz Cluster: S. * 10871 kHz Cluster: D,K (K = four repetitions and a pause).

18/3/23 * No sigs from D on 3593.7 kHz. * Dasher/"T" active and frequency changed to 4182 kHz (weak) 4183 kHz (strongest) and 4184 kHz (strong). * D,S on 5153 cluster. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: D,P,S. * 10871 kHz Cluster: D,A,K (K = four repetitions and a pause).

19/3/23 * T marker active 4182/83. Identified as Osnova-98, RUS Western military district. * D,S,A on 5153 cluster. * 5156.8 KHz L. * 7508 kHz Cluster: D,P,S,A. *8495 cluster: S,C. *8497.8 kHz: L. * 10871 kHz Cluster: D,A,K (K = four repetitions and a pause). * 13527 cluster: D,S. *16332 cluster: D,S,C,A. *20048 cluster: D,S.

20/3/23 *4183/4184 kHz T. * D,S,A on 5153 cluster. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S. *8495 cluster: C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K (K = four repetitions and a pause). * 13527 cluster: D,S,A. *16332 Cluster: D,C,A,K.

21/3/23 *4183/4184 kHz T. * D,S on 5153 cluster. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: S,A. *8495 cluster: C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K (K = four repetitions and a pause). * 13527 cluster: D,S,A. *16332 Cluster: S,C.

21438 kHz 12:00 CW broadcast: RCY6 RCY6 DE RCV RCV QTC IIIIE QTC 22615221320226 PROGNOZ POGODYS 1800 - weather forecast for Mediterranean followed. RCY6 = ship/flotilla callsign. RCV = Sevastopol Naval Command.

21/3/23 *4183/4184 kHz T. * D,S,A on 5153 cluster. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: S,A. *8495 cluster: P,C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K (K = four repetitions and a pause). * 13527 cluster: D,S,C,A,K,M.

21438 kHz 12:31 CW broadcast 20wpm: RCY6 RCY6 DE RCV RCV QTC .61919122141619 PROGNOZ POGODY 58003 DO 18005 - weather forecast for Mediterranean followed. RCY6 = ship/flotilla callsign. RCV = Sevastopol Naval Command.

23./3/23 *4183/4184 kHz T. *D on 5153 cluster. * 7508 kHz Cluster: P,A. *8495 cluster: absent/obliterated by Spanish STANAG. *8497.8 kHz: L. * 10871 kHz Cluster: D,C. * 13527 cluster: D,S.

24/3/23 *4183/4184 kHz T. * D,S on 5153 cluster. * 5156.8 kHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8497.8 kHz: L. * 10871 kHz Cluster: D,C,A. * 13527 cluster: D.

Beacon "D"/Sevastopol had one of its semi-regular upsets this week with a night of schizophrenic keying (identifying as H,T and S!). Otherwise no major variations from the established schedules.

25/3/23 *4183/4184 kHz T. * D on 5153 cluster. * 5156.8 KHz L. * 7508 kHz Cluster: P,S,A. *8495 cluster: C. *8497.8 kHz: L. * 10871 kHz Cluster: D,A.

26/3/23 *4183/4184 kHz T. * 5153 kHz cluster: D,P,A. * 5156.8 KHz L. * 7508 kHz Cluster: P,S,A. *8495 cluster: C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K (K = four repetitions and a pause). * 13527 cluster: D,S,A. *16332 Cluster: D,S,C.

27/3/23 *4183/4184 kHz T. * 5153 kHz cluster: D,P,S. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: D,S,A. *8495 cluster: S,C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K (K = four repetitions and a pause). * 13527 cluster: D,S. *16332 Cluster: D,S,C.

28/3/23 *4183/4184 kHz T. * 5153 kHz cluster: D,S,A. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: D,S,A. *8495 cluster: D,S,C,A. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K (K = four repetitions and a pause). * 13527 cluster: D,S,C,A. *16332 Cluster: D,S,C.

21438 kHz 12:40 CW Broadcast 20wpm: RCY6 RCY6 DE RCV RCV QTC 810 326 28 1420 810/PROGNOZ POGODYOT 1800 23 DO 1800 29 MARTA SREDIZEMNOE MORE CENTR DURRES WETER SEWENYJ SEWERO WOSTO...NYJ 10/13 NA?ALE SROKE 12/1H KONCE SROKA ZVNYJ ?GO ZAPADNYJ 6/9 MORE.....

29/3/23 *4183/4184 kHz T. * 5153 kHz cluster: D,P,S. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 cluster: S,C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K (K = four repetitions and a pause). * 13527 cluster: D,S,A. *16332 Cluster: D,S,C.

30/3/23 *4183/4184 kHz T. * 5153 kHz cluster: D,P (D with faulty keying - sending 'H','S' and 'T' at intervals). * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 cluster: D,S,C,A (D with faulty keying). *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A (D with faulty keying). * 13527 cluster: D,A (D with faulty keying). *16332 Cluster: D,C (D with faulty keying).

31/3/23 *4183/4184 kHz T. * 5153 kHz cluster: P,A. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: S,A. *8495 cluster: P,S,C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K (K = four repetitions and a pause). * 13527 cluster: D,S. *16332 Cluster: D,S. * 20048 kHz cluster: D.

April 2023

Of note this month is the Western Military District transmissions from Osnova-98 on 4183 kHz have ceased for a couple of days. Too early to tell if this is for good or merely a break for maintenance.

The other station of note is MXI "V" (probably Khiva) on 4031 kHz. This frequency previously noted by N&O to have been used by P/Khalingrad.

1/4/23 *4183/4184 kHz T. * 5153 kHz cluster: D,P,S,C,A. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: D,S,A. *8495 cluster: C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K (K = four repetitions and a pause). * 13527 cluster: D,S,A,K (K = four repetitions and a pause). *16332 Cluster: D,C.

2-3/4/23 No observations.

4/4/23 *4183/4184 kHz T. * 5153 kHz cluster: D,P,S. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: S,A. *8495 cluster: No sigs. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. * 13527 cluster: D,S,A. Much interference from CODAR radar. *16332 Cluster: D,S,C.

5/4/23 No observations.

6/4/23 *4183/4184 kHz T. * 5153 kHz cluster: D,P,S,A. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 cluster: S,C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K. * 13527 cluster: D,S. Much interference from CODAR radar. *16332 Cluster: D,S,C,K.

7/4/23 *4183/4184 kHz T Osnova-98 off the air. * 5153 kHz cluster: D,S,A. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S. *8495 cluster: S,C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K. * 13527 cluster: D,S,A,K,M. *16332 Cluster: K.

8/4/23 * New entry: 4031 kHz V/Khiva? This frequency formerly used by P/Khalingrad. *4183/4184 kHz T Osnova-98 off the air. * 5153 kHz cluster: D,P,S. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: S,A. *8495 cluster: S,C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. * 13527 cluster: D,S,A. *16332 Cluster: D,S,C,A.

9/4/23 *3797 kHz RCV Sevastopol CW broadcast 20:20 onwards. *4031 kHz V. *4183/4184 kHz T Osnova-98 off the air. * 5153 kHz cluster: D,S,M. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: D,S,A. *8495 cluster: S,C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K. * 13527 cluster: D,S,A,M. *16332 Cluster: F (new entry).

10/4/23 *4031 kHz V. * 5153 kHz cluster: D,P,S,A. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 cluster: P,C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K. * 13527 cluster: D,S,A. *16332 Cluster: D,S,C,A. *20048 kHz Cluster: D,S.

11/4/23 No observations

12/4/23 10/4/23 *4031 kHz V. * 5153 kHz cluster: D,P,S. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: D,S,C,A. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K. * 13527 cluster: D,S,C,A. *16332 Cluster: D,S,A. *20048 kHz Cluster: D,S.

13/4/23 10/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 returns. * 5153 kHz cluster: D,P,S. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: D,S,C,A. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. Irregular faulty keying on 'C' and raspy note. * 13527 cluster: D,S,C,A. *16332 Cluster: D,S,C. *20048 kHz Cluster: S.

This week's observations of the various MX/MXI beacons (+ Osnova-98. Not a CW beacon as such but notable by its regular absence after being such a stable station. Perhaps the western defence units it is intended to communicate with are currently "away from home"?). 'L' on 5156.7 kHz has been absent for the last five days. If it has shifted elsewhere I have not yet found it. 'C' 10872 kHz has been unreliable recently, tonight's keying is a complete mess. It is interesting to compare the failure modes of 'D' and 'C'. When Sevastopol fails the keying remains a regular, repeated sequence and all channels are keyed simultaneously - the inferencing being that all transmitters use a single common keying unit. When 'C' has been observed to fail it has only affected the 10872 kHz outlet and there is no discernible pattern to the keying errors.

The evening traffic broadcast from Sevastopol is well under way by the time propagation permits it's reception here in the UK around 15:00 Z. Broadcasts routinely continue past 19:30 Z, all seemingly hand sent. The need to change operators might explain the occasional lengthy pause between messages.

14/4/23 10/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98. * 5153 kHz cluster: D,P,S,C,A. * 5156.8 kHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: S,C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. Irregular faulty keying on 'C' and raspy note. * 13527 cluster: D,S,A,F,K,M (K= 2 repeats and a pause). *16332 Cluster: S,K.

Lengthy hand sent traffic broadcast from RCV/Sevastopol on 3797 kHz from C. 18:30 Z to 20:12Z.

15/4/23 10/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,P,S,A. * 5156.8 kHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: D,S,C,A. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. Poor note on C but keying much improved - occasional extra dashes. * 13527 cluster: D,S,A,M. *16332 Cluster: A,K.

Traffic broadcast from RCV/Sevastopol on 3797 kHz from C. 18:00Z to c. 19:30Z.

16/4/23 10/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,P,S,A. * 5156.8 kHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: D,S,C,A. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. * 13527 cluster: D,S,A. *16332 Cluster: D,S,A.

Traffic broadcast from RCV/Sevastopol on 3797 kHz from C. 17:30Z to 19:42Z.

17/4/23 10/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 returns. * 5153 kHz cluster: D,S. * 5156.8 kHz L absent. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: D,S,C,A. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. * 13527 cluster: D,S,A,M. *16332 Cluster: S,C,A,K (K sent continually rather than in the usual groups of four - new keyer?).

18/4/23 10/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,P,A. * 5156.8 kHz L absent. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: D,S,C,A. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. * 13527 cluster: D. *16332 Cluster: D,S,A.

19/4/23 10/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,P,S,A. * 5156.8 kHz L absent. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A,K. * 13527 cluster: D,S. *16332 Cluster: No sigs.

20/4/23 10/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,P,S,A. * 5156.8 kHz L absent. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: D,S,C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. * 13527 cluster: D,S,A,M. *16332 Cluster: S,A.

21/04/23 No observations

22/4/23 10/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,P,M. * 5156.8 kHz L absent. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. 'C' has random nonsensical keying. * 13527 cluster: D,S,A. *16332 Cluster: D,S,C,M. 'C' keying normally.

Of note are the continued problems Moscow has with the 10872 kHz transmission of 'C' - after a few days or regular keying the transmitter reverted back to its previous faulty status. Interestingly it was absent tonight (Sun 30 April) - I can only assume that it is off the air for maintenance.

23/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,P,A. * 5156.8 KHz L absent. * 7039.4 kHz: M. * 7508 kHz Cluster: P. *8495 kHz cluster: No sigs. *8497.8 kHz: L absent. * 10871 kHz Cluster: D,C,A. 'C' has returned to regular keying. * 13527 cluster: D. *16332 Cluster: D.

24/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,P,S,A. * 5156.8 KHz L returns. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S. *8495 kHz cluster: C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C. * 13527 cluster: S. *16332 Cluster: No sigs. Tfc best DE Sevastopol still ongoing 21:30Z

25/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,P,A. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: C. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. Irregular keying of 'C' returns, generally sending 'M' or 'K'. It appears to have a problem with missing dots and extended dashes. * 13527 cluster: D,S,A. *16332 Cluster: D,S. Tfc best DE Sevastopol still ongoing 21:30Z

26/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,P. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: D,S,C,A. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. Irregular keying of 'C' still present, albeit not a severe as previously. * 13527 cluster: D,S,A,K. *16332 Cluster: S.

27/4/23 No observations.

28/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,P,A. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: D,S,C,A. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. Irregular keying of 'C' persists. * 13527 cluster: D,A. *16332 Cluster: D,S.

29/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,P,A. * 5156.8 KHz L. * 7039.4 kHz: M. * 7508 kHz Cluster: P,A. *8495 kHz cluster: D,S,C,A. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,C,A. 'C' sending 'G'. * 13527 cluster: D.

30/4/23 *4031 kHz V. *4183/4184 kHz T/Osnova-98 absent. * 5153 kHz cluster: D,S,A. * 5156.8 KHz L. * 7508 kHz Cluster: P,S,A. *8495 kHz cluster: D,S,C,A. *8497.8 kHz: L. * 10871 kHz Cluster: D,S,A. 'C' notably absent. * 13527 kHz cluster: D,S,A. *16332 kHz: K

Oddities

First, three unidentified oddities from 'E':

12195	1509z	28 Mar	4 Beeps, off 1510z				E	TUE
12610	1525z	28 Mar	Open Carrier, still there 1600z [RTTY heard on this freq – possibly on standby? Ed]				E	TUE
5724	2024z	29 Mar	3s Bursts every couple of secs, also on 4800kHz				E	WED

Thanks for the reports 'E'

'The Goose'

3243	0455z	07 Mar	'Goose' Marker – Night Freq	Fading	Good	USB	chpa	TUE
	0404z	01 Apr	'Goose' Marker – Night Freq		Good	USB	chpa	SAT
	0311z	12 Apr	'Goose' Marker – Night Freq		Good	USB	chpa	WED

'The Alarm'

4770	0505z	07 Mar	Marker Signal (The Alarm) with possible QRM from HF radar		Good	USB	chpa	TUE
	0408z	01 Apr	Marker Signal (The Alarm)		Good	USB	chpa	SAT
	0332z	12 Apr	Marker Signal (The Alarm)		Moderate	USB	chpa	WED

S28 'The Buzzer'

4625	0504z	07 Mar	S28	'The Buzzer' Marker		Good	USB	chpa	TUE
	0407z	01 Apr	S28	'The Buzzer' Marker		Good	USB	chpa	SAT
	0331z	12 Apr	S28	'The Buzzer' Marker		Good	USB	chpa	WED

S30 'The Pip'

3756	0313z	12 Apr	S30	'Pip' marker (Night freq)		Moderate	USB	chpa	WED
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4182 'T Marker'

	0502z	07 Mar		Normal sound from the T Marker		Good	USB	chpa	TUE
	0406z	01 Apr		Normal sound from the T Marker		Good	USB	chpa	SAT
	0322z	12 Apr		Normal sound from the T Marker		Good	USB	chpa	WED
4183.4	2100z	01 Mar		T Marker			RB	WED	
		04 Mar		T Marker			RB	SAT	
		05 Mar		T Marker			RB	SUN	
4183.7	2100z	01 Mar		T Marker			RB	WED	
		04 Mar		T Marker			RB	SAT	
		05 Mar		T Marker			RB	SUN	

Contributors: AB, BR, chpa, E, Gary, Gert, HFD, JPL, PLdn, PoSW, RB, *Thank you all for your logs.*

Voice, Polytone, Tones and Hybrids

E06

From RINGB:

E06 Mar/April log:

Monday (repeats Tuesday)	0210z	11567kHz	0310z	14578kHz	(frequencies may vary slightly)
13/03 '537' 816 30 09130.....etc	(Thanks HfD)				
	0210z	11454kHz	0310z	14456kHz	
03/04 '537' 482 36 63739.....etc	via KiwiSDR J	(Thanks HfD)			
Thursday (repeats Friday)	0300z	15726kHz	0400z	13384kHz	(frequencies may vary slightly)
02/03 '361' 597 46 77068.....etc	(Thanks HfD)				
	0300z	15641kHz	0400z	13392kHz	
06/04 '361' 759 30 80198.....etc	(Thanks HfD)				

First /Third Thursday (repeats Friday)		0600z	16230kHz	0700z	19325kHz
02/03	'864' 109 52 99261 11421 29073 51347 06436 93772 81353 55879 47398 03278 18264 16961 83393 75921 43540 47279 22941 54761 49785 71456 72144 60232 63761 21216 54242 06645 22619 85325 03082 88310 98288 00261 60208 83739 12192 92541 30258 51331 07478 08651 74328 15016 70965 93494 46040 63273 21979 03342 99946 09964 10268 64162 109 52 00000				
16/03	'864' 132 50 64978 66934 68267 15348 90941 86244 54394 04305 79676 10642 86144 42626 22950 54403 87117 84417 46889 00870 12577 73733 85509 63845 25167 66946 11374 34635 98870 96243 71815 56917 62112 28921 04170 96635 15968 02167 28439 99093 88403 38024 40846 50454 10497 68211 56693 85808 25554 23495 75989 11024 132 50 00000				
		0500z	15645kHz	0600z	17470kHz (frequencies may vary slightly)
06/04	'951' 320 68 32183 44250 15357 48132 45850 35263 39569 94091 90668 13428 51810 17765 98230 81495 64841 53303 62519 09274 02081 64755 13520 70382 25166 02952 93646 93179 32308 16050 04199 61779 07136 12511 14024 28107 22724 99962 47571 20923 30474 48380 94527 62763 88553 51013 08228 30727 09568 81509 85015 22038 32161 70669 41756 10345 46233 51261 33672 03673 26449 44344 79704 39971 53744 85529 87584 81201 29506 14630 320 68 00000				
20/04	'951' 723 60 89458 93968 20267 23748 56352 36674 56131 24508 56160 59762 12017 07241 91712 73838 98256 89106 11325 07961 72509 95298 00396 61361 67151 43713 03567 08010 80813 46440 50892 21193 70036 11732 86440 10295 01940 51151 22786 86985 53883 21581 69804 02977 71022 56786 11239 26555 17723 68212 27439 50074 83750 19712 87742 45585 31194 05884 60914 10804 93042 88710 723 60 00000				
Saturdays		1300z	10755kHz	1330z	9073kHz
04/03	'480' 561 44 78430 31192 49124 23068 95405 58261 82515 27048 56151 54890 39941 74423 34229 30007 61753 67546 19795 69197 29868 40529 18027 92425 68208 21206 48133 98220 41359 58310 86475 50996 73201 71458 72797 15128 28810 62853 29344 45434 04714 58814 36804 26660 57159 43347 561 44 00000				
11/03	'480' 615 42 70589 82923 26824 89765 58148 80068 26130 49585 12374 52666 98472 56009 61612 32882 66922 09444 32084 68156 93716 75140 80939 82960 24283 85906 67011 72711 84220 02044 85796 79127 01265 91883 34722 11922 39634 27120 73397 67790 68444 71952 26964 64582 614 42 00000				
18/03	'480' 216 45 26968 41395 63128 96786 40981 20337 35927 48027 34648 30416 48984 84605 62433 92695 18405 48811 46057 69549 98345 46084 51275 56631 32823 01662 61147 39116 81816 88102 52005 49441 82278 69397 10380 76271 14836 88731 73774 73536 63766 95243 28064 45881 72465 94685 14422 216 45 00000				
25/03	'480' 672 41 37428 93523 64082 66656 82322 41345 47287 45244 79990 55125 53932 84261 81065 15116 11647 59750 38171 67320 81254 14907 93502 03509 36186 95310 79960 07326 52160 18011 51109 63456 71343 84626 12319 77855 15874 69732 20702 50068 21427 56804 68700 672 41 00000				
		1300z	11487kHz	1330z	9412kHz
01/04	480 '671' 40 34507 52090 24544 08172 34242 12897 44405 90742 88350 16349 96209 52957 46195 69442 67819 76785 19672 16034 48159 48597 13982 31355 28220 76863 98143 60279 90337 71635 06269 35975 25259 82385 32074 31883 76448 05336 74694 70217 45945 94752 671 40 00000				
08/04	'480' 765 40 58515 79072 08746 16733 74362 97127 16869 81013 09636 99271 29243 28098 58238 23854 97194 83190 65395 70045 46762 78824 91653 67421 97700 61483 28452 43208 78646 87173 43262 04309 93414 02570 83139 69087 69289 83691 63624 63391 83367 09893 765 40 00000				
15/04	'480' 567 40 34415 80223 55958 41217 65183 29850 11428 29156 59073 50456 13597 38965 53912 84941 38489 09759 70477 07936 70893 69464 49623 44813 70855 95057 73628 13974 60178 05871 95713 54413 29604 26043 90696 91313 23879 33264 70090 05259 79739 54765 567 40 00000				
22/04	'480' 967 44 38242 46045 16619 94601 82040 46795 69921 55941 15903 64313 91653 67421 97700 61483 28452 43208 78646 87173 43262 04309 72604 93390 46472 76509 47464 91755 34140 31170 87099 87476 50135 80378 77662 36962 77384 32258 43795 81190 22191 26184 16869 81013 09636 99271 967 44 00000				
Sundays		0930z	12093kHz	1000z	10212kHz
05/03	'480' 561 44 78430.....etc				
12/03	'480' 615 42 70589.....etc				
19/03	'480' 216 45 26968.....etc				
		0930z	13945kHz	1000z	11128kHz
02/04	'480' 671 40 34507.....etc				
09/04	'480' 765 40 58515.....etc				
16/04	'480' 567 40 34415.....etc				
23/04	'480' 967 44 38242.....etc				

From PoSW:

First + Third Thursdays in the Month Schedule, 0600 + 0700 UTC in March, 0500 + 0600 in April:-

2-Mar-23:- 0600 UTC, 16230 kHz, calling "864", DK/GC "109 109 52 52". Good signal, ended around 0613z.
0700 UTC, 19325 kHz, second sending, strong signal.
Frequencies as per prediction list in En129 of March last year.

2-Mar-23, Friday:- The repeat on the following day:-

0600 UTC, 16230 kHz, much weaker signal than 24 hours earlier.
0700 UTC, 19325 kHz, weak at first, difficult copy, started to become stronger around 0709z and was much stronger by 0711.

16-Mar-23:- Missed it, clean forgot that this was the third Thursday in the month!

17-Mar-23, Friday:- 0600 UTC, 16230 kHz, "864", DK/GC "132 132 50 50", fair signal.
0700 UTC, 19325 kHz, strong signal.

6-Apr-23:- 0511 UTC, 15645 kHz, nothing audible on the predicted frequency until about eleven minutes in; rapidly became stronger, ended with, "320 320 68 68 00000" before 0516z. Higher group count than usual for this schedule. Has moved by one hour UTC in this month but because of the start of BST still shows up at 6 and 7 am.
0600 UTC, 17480 kHz - not heard for the first few minutes because the RX had been tuned in to the expected frequency of 17470; a quick tweak of the tuning found it "ten up". Strong signal, became very strong.

7-Apr-23, Friday:- 0500 UTC, 15645 kHz, very weak at first and again started to become stronger around 0511z.
0600 UTC, 17470 kHz, strong signal. Call "951", pre-transmission warm-up noted around 0551, carrier + tone followed by a single spoken "951".

20-Apr-23:- 0500 UTC, 15645 kHz, call "951", DK/GC "723 723 60 60", good signal but unusually became weaker as the transmission progressed.
0600 UTC, 17475 kHz, strong.

21-Apr-23, Friday:- 0500 UTC, 15645 kHz, first sending of the repeat of yesterday's.
0600 UTC, 17470 kHz, strong signal.

Tnx RNGB and PoSW

E07

PoSW starts the ball rolling

Saturday Schedule, 1400 UTC Start in March, 1300 UTC in April:-

4-Mar-23:- 1420 UTC, 11143 kHz, "114 114 114 000", good signal, missed 1400z sending which would have been on 12143.

11-Mar-23:- 1400 UTC, 12143 kHz, "114 114 114 000", strong.
1420 UTC, 11143 kHz, weaker but still audible above local noise interference.

25-Mar-23:- 1400 UTC, 12143 kHz, strong and 1420 UTC, 11143 kHz, weaker, "114 114 114 000".

1-Apr-23:- 1300 UTC, 12176 kHz, has - for someone's convenience, perhaps - moved by one hour UTC but because in the UK the clocks have moved by one hour with the start of British Summer Time still appears at 2 pm. "152 152 152 000", strong signal.
1320 UTC, 11576 kHz, also strong.

8-Apr-23:- 1300 UTC, 12176 kHz, strong and 1320 UTC, 11576 kHz, weaker, "152 152 152 000".

15-Apr-23:- 1300 UTC, 12176 kHz, "152 152 152 000", strong.
1320 UTC, 11576 kHz, weaker.

22-Apr-23:- 1300 UTC, 12176 kHz, strong signal and 1320 UTC, weaker, "152 152 152 000".

Sunday Schedule, 0700 UTC Start in March, 0600 UTC in April:-

12-Mar-23:- 0700 UTC, 10268 kHz, "201 201 201 000", weak signal.
0720 UTC, 11068 kHz, stronger.

19-Mar-23:- 0700 UTC, 10268 kHz, "201 201 201 000", strong enough to be heard above local interference.
0720 UTC, 11068 kHz, weaker.

26-Mar-23:- 0700 UTC, 10268 kHz, "201 201 201 000".
0720 UTC, 11068 kHz, strong.

2-Apr-23:- 0600 UTC, 9261 kHz, "224 224 224 000", good signal.
0620 UTC, 10261 kHz, weaker.

9-Apr-23:- 0600 UTC, 9261 kHz and 0620 UTC, 10261 kHz, "224 224 224 000".

16-Apr-23:- 0600 UTC, 9261 kHz and 0620 UTC, 10261kHz, both strong, "224 224 224 000".

23-Apr-23:- 0600 UTC, 9261 kHz, "224 224 224 000", strong.
0620 UTC, 10261 kHz, weaker.

Saturday + Thursday Schedule, 1410 UTC Start:-

Unlike the above two schedules this one stays on UTC and so appears one hour later in the month of April with the start of British Summer Time.

4-Mar-23, Saturday:- 1410 UTC, 16284 kHz, "328 328 328 1", DK/GC "6085 79" x 2, strong signal.
1430 UTC, 14854 kHz, also strong.
1450 UTC, 13384 kHz, weaker.

9-Mar-23, Thursday:- 1410 UTC, 16284 kHz, "328 328 328 000", strong signal.
1430 UTC, 14854 kHz, weaker.

11-Mar-23, Saturday:- 1410 UTC, 16284 kHz, strong and 1430 UTC, 14854 kHz, weaker, "328 328 328 000".

16-Mar-23, Thursday:- 1432 UTC, 14854 kHz, message in progress, missed 1410z sending, ended around 1437:40s UTC.
1450 UTC, 13384 kHz, "328 328 328 1", DK/GC "3868 61" x 2, good signal.

25-Mar-23, Saturday:- 1410 UTC, 16284 kHz, "328 328 328 000".
1430 UTC, 14854 kHz, weaker.

1-Apr-23, Saturday:- 1410 UTC, 16331 kHz, "893 893 893 000", good signal.
1430 UTC, 15831 kHz, weaker.
Starts one hour later now that the clocks have changed for British Summer Time.

6-Apr-23, Thursday:- 1410 UTC, 16331 kHz, "893 893 893 000", strong signal. SLT cluster on close frequency, "S" the strongest by far.
1430 UTC, 15831 kHz, also strong.

8-Apr-23, Saturday:- 1410 UTC, 16331 kHz, good signal with SLT "S" for company and 1430 UTC, 15831 kHz, good signal, "893 893 893 000".

13-Apr-23, Thursday:- 1410 UTC, 16331 kHz, "893 893 893 1", DK/GC "559 64" x 2, strong signal with SLT as before.
1430 UTC, 15831 kHz, also strong.
1450 UTC, 14831 kHz, weaker.

15-Apr-23, Saturday:- 1410 UTC, 16331 kHz, "893" and "559 64" again, weaker than usual,
S5 to S6, SLT "S" strong as always.
1430 UTC, 15831 kHz, stronger, missed the third sending.

20-Apr-23, Thursday:- 1410 UTC, 16331 kHz, "893 893 893 000", good signal with strong SLT "S".
1430 UTC, 15831 kHz, also strong.

22-Apr-23, Saturday:- 1410 UTC, 16331 kHz, "893 893 893 000", weaker than usual, SLT "S" strong enough.
1430 UTC, 15831 kHz, also weaker than usual.

Tuesday + Friday Schedule, 1500 UTC Start:-

10-Mar-23, Friday:- 1541 UTC, 17451 kHz, must be the third sending, not in the prediction list so a search required. "584 584 584 1", DK/GC "9071 64" x 2. Good signal, nothing had been found at 1500 and 1520 UTC.

21-Mar-23, Tuesday:- 1527 UTC, 15851 kHz, message in progress, must have started at 1520z, ended after 1532.
1540 UTC, 17451 kHz, "584 584 584 1", DK/GC "7584 118" x 2, strong signal.

24-Mar-23, Friday:- Unable to find the first sending at 1500z, thought that 14551 or 13551 might be likely candidates but nothing heard.
1520 UTC, 15851 kHz, very weak, unreadable.
1540 UTC, 17451 kHz, also very weak in contrast with previous occasions.

28-Mar-23, Tuesday:- 1520 UTC, 15851 kHz, back to being a strong signal, "584 584 584 000".

31-Mar-23, Friday:- 1520 UTC, 15,851 kHz, strong, "584 584 584 000".
Never did find the 1500z sending.

Always a bit of a problem to find this schedule in the new month:-

7-Apr-23, Friday:- 1506 UTC, 16257 kHz, message transmission in progress, ended after 1514z. Has stayed on UTC so showing up one hour later than the past few months now that the clocks have moved forward for summertime. It used to be the case that in general E07 schedules would move by an hour when the clocks changed so as to appear at the same local time.
1524 UTC, 18257 kHz, in progress, must be the second sending.
1545 UTC, 19157 kHz, strong signal, in progress.

14-Apr-23, Friday:- 1500 UTC, 16257 kHz, "221 221 221 000", good signal.
1520 UTC, 18257 kHz, weaker.

Other's Logs:

Sunday

March 2023

0700z	10268kHz	0720z	11068kHz	0740z	12168kHz
05/03	201 000				Weak
12/03	201 000				0700z Weak, 0720z Fair
19/03	201 000				Weak
26/03	201 000				0700z Weak, 0720z Fair both with QRN2

April 2023

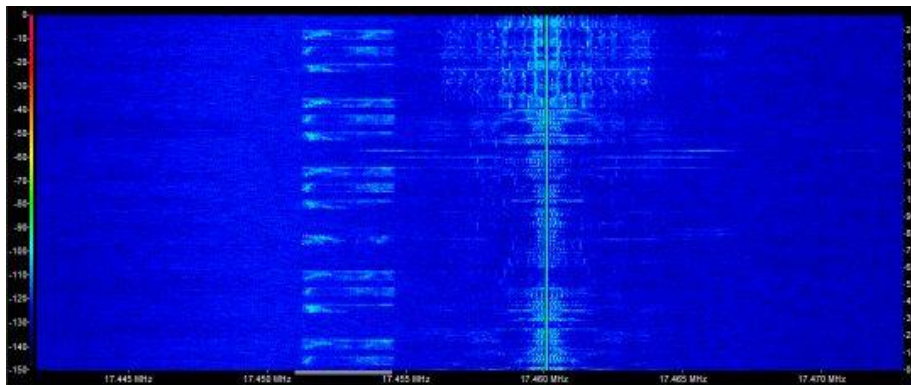
0600z	9261kHz	0620z	10261kHz	0640z	11461kHz
16/04	224 000				0600z Weak, 0620z Fair

23/04	224 000	Fair
30/04	224 000	0600z Weak, 0620z V.weak

Tuesday/Friday

March 2023

1500z	14571kHz	1520z	15851kHz	1540z	17451kHz
03/03	584 000			Gert	FRI
07/03	584 1 9071 64 23452 to 62654 000 000			1500z Weak, rest Fair	
10/03	584 1 9071 64 23452 to 62654 000 000			1540z Fair, rest Weak	
14/03	584 000			Strong	
17/03	584 000			Fair	



17451kHz 1540z 21/03/2023 Splatter fm BC Stn: 17460kHz read editorial

21/03	584 1 7584 118 26790 ... 63427 000 000	Fair. 1540z Some sideband splatter fm BC Stn 17460kHz. See image
24/03	584 1 7584 118 26790 ... 63427 000 000	Weak, via Dutch SDR [NRH with PLdn, Poor Solar Indexes K:2]
28/03	584 000	1500z Fair, 1520z Strong; both QRN2
31/03	584 000	Weak

April 2023

1500z	16257kHz	1520z	18257kHz	1540z	19157kHz
04/04	221 1 149 142 ... 33975 ... 21363 000 000	[1520z restart after Grp 22]		Ary/M8	TUE

221 221 221 1 479 142 479 142
 33975 22691 87047 73196 70663 68636 09937 97379 87609 31248
 19403 57838 19236 40375 68578 48361 69896 65000 59193 77013
 42079 57531 19707 91185 74719 92387 62104 75688 59098 04271
 71103 03871 37266 96744 73867 99509 03258 33182 25643 05430
 13324 05325 70190 66934 12582 04816 40007 11486 58999 29354
 15016 54446 35503 06451 44929 06567 69713 92088 54776 14109
 50493 12129 42026 03677 84268 63248 30561 14319 57973 26509
 28442 72602 16552 69631 39335 89941 98504 35034 16499 88786
 80180 93846 30661 35033 87886 37867 39660 57880 06540 15884
 82902 43475 87459 56687 13836 63465 79213 97935 06550 86109
 31705 56786 90620 59542 97197 78915 54201 90876 17498 37872
 21871 02461 22960 31391 72752 47978 36019 01673 38840 83781
 31907 01574 80799 11429 77223 75155 33600 95744 22614 91907
 24294 11750 35181 23193 38746 72093 97456 70783 21280 55061
 31274 21363 000 000
 Courtesy Ary

08/04	221 1 149 142 ... 33975 ... 21363 000 000	Weak
11/04	221 000	1500z Fair. 1520z Weak
14/04	221 000	1500z Fair. 1520z Weak
18/04	221 1 374 121 25603 ... 69925 000 000	1500Fair, rest weak. 1520z stopped group12 restart 1523 then 121 for 1min started Group 6 to 69925 000 000
21/04	221 1 374 121 25603 ... 69925 000 000	1500z Fair, rest Strong
25/04	221 000	Weak, via Dutch SDR
28/04	221 000	Weak

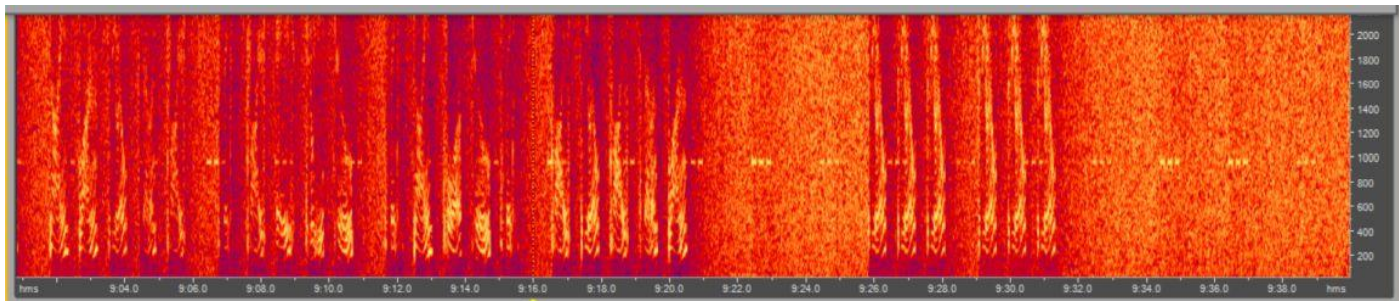
Thursday/Saturday

March 2023

1410z	16284kHz	1430z	14854kHz	1450z	13384kHz
02/03	328 1 6085 79 64221 ... 64118 000 000				Fair
04/03	328 1 6085 79 64221 ... 64118 000 000				1410z Weak, rest Fair
09/03	328 000				Weak, QRM3
11/03	328 000				Weak
16/03	328 1 3868 61 48215 ... 55857 000 000				1450z Fair, rest Weak
18/03	328 1 3868 61 48215 ... 55857 000 000				Fair
23/03	328 000				Strong
25/03	328 000				Weak, QRN2 [also fm 'E']

April 2023

1410z	16331kHz	1430z	15831kHz	1450z	14831kHz
01/04	893 1 136 88 45344 ... 03762 000 000				Fair, 1410z NRH
06/04	893 000				Fair
08/04	893 000				Weak
13/04	893 1 559 64 08379 ... 50571 000 000				1430z Strong, rest Fair, 1410z S Beacon audible



15/04	893 1 559 64 08379 ... 50571 000 000				1410z Strong, rest Fair, 1410z S Beacon audible, see pic above
20/04	893 000				Fair [S Beacon audible PLdn QTH]
22/04	893 000				Weak [1410z S Beacon, weak PLdn QTH]
27/04	893 1 343 94 20284 ... 27847 000 000				Weak
29/04	893 1				1410z Weak QRM4, 1430z Unworkable, 1450z NRH

Saturday

March 2023

1400z	12143kHz	1420z	11143kHz	1440z	10443kHz
04/03	114 000				Fair
11/03	114 000				Fair
18/03	114 000				Fair
25/03	114 000				Fair [also fm 'E']

April 2023

1300z	12176kHz	1320z	11576kHz	1340z	10276kHz
01/04	152 000				1300z Strong, 1320z Fair, QRM3 [also fm 'E']
08/04	152 000				Weak

15/04	152 000	1300z Fair, 1320z Strong
22/04	152 000	Weak
29/04	152 000	Fair

E11 log March/April

4181kHz	1910z	01/03 [395/00] Out 1913z S9		Malc, HfD	WED
	1910z	04/03 [394/00] Out 1913z S9		Malc	SAT
	1910z	08/03 [393/00] Out 1913z S9		Malc	WED
	1910z	11/03 [392/00] Out 1913z S7		Malc	SAT
	1910z	15/03 [395/00] Out 1913z S9		Malc	WED
	1910z	18/03 [391/00] Out 1913z S9		Malc	SAT
	1910z	22/03 [394/39 66319.....28685] Out 1921z S5		Malc	WED
	1910z	29/03 [399/00] Out 1913z S9		Malc	WED
	1910z	01/04 [394/00] Out 1913z S9		Malc	SAT
	1910z	05/04 [393/00] Out 1913z S3		Malc	WED
	1910z	12/04 [399/33 89277.....80878] Out 1920z S9		Malc	WED
	1910z	19/04 [392/00] Out 1913z S9		Malc	WED
	1910z	26/04 [394/00] Out 1913z S9		Malc	WED
4505kHz	1530z	04/03 [365/00] Out 1533z S3 (Dutch SDR)		Malc, HfD	SAT
	1530z	11/03 [365/00] Out 1533z S3 (Dutch SDR)		Malc	SAT
	1530z	12/03 [364/00] Out 1533z S2		Malc	SUN
	1530z	18/03 [367/00] Out 1533z S2		Malc	SAT
	1530z	19/03 [367/00] Out 1533z S3 (Dutch SDR)		Malc	SUN
	1530z	25/03 [364/36 95618.....84084] Out 1540z 4 (Dutch SDR)	(Dutch SDR)	Malc	SAT
	1530z	01/04 [364/00] Out 1533z S3 (Dutch SDR)		Malc	SAT
	1530z	15/04 [365/00] Out 1533z S3 (Dutch SDR)		Malc	SAT
	1530z	22/04 [360/00] Out 1533z S7 (Finnish SDR)		Malc	SAT
	1530z	23/04 [367/00] Out 1533z S3 (Dutch SDR)		Malc	SUN
5176kHz	1605z	05/03 [232/00] Out 1608z S5 (Dutch SDR)		Malc, HfD	SUN
	1605z	07/03 [237/00] Out 1608z S5+QRM		Malc	TUE
	1605z	12/03 [235/00] Out 1608z S4 (Dutch SDR)		Malc	SUN
	1605z	14/03 [236/35 05732.....44615] Out 1615z S2+QRM		Malc	TUE
	1605z	21/03 [231/00] Out 1608z S3		Malc, Gary H	TUE
	1605z	26/03 [235/00] Out 1608z S4 (Dutch SDR)		Malc	SUN
	1605z	28/03 [235/00] Out 1608z S4 (Dutch SDR)		Malc	TUE
	1605z	04/04 [231/00] Out 1608z S2+QRM		Malc	TUE
	1605z	11/04 [238/00] Out 1608z S2+QRM		Malc	TUE
	1605z	16/04 [237/00] Out 1608z S4 (Dutch SDR)		Malc	SUN
	1605z	18/04 [233/34 48400.....01526] Out 1615z S5 (Finnish SDR)	(Finnish SDR)	Malc	TUE
	1605z	25/04 [230/00] Out 1608z S4+QRM (Dutch SDR)	(Dutch SDR)	Malc	TUE
5371kHz	1300z	02/03 [315/00] Out 1303z S2 (Dutch SDR)		Malc, HfD	THU
	0450z	06/03 [412/00]		HfD	MON
	1300z	06/03 [316/00] Out 1303z S2 (Dutch SDR)		Malc	MON
	1300z	09/03 [315/00] Out 1303z S4 (Finnish SDR)		Malc	THU
	1300z	13/03 [312/34 25593.....78426] Out 1310z S3 (Dutch SDR)	(Dutch SDR)	Malc	MON
	1300z	20/03 [310/00] Out 1303z S4		Malc	MON
	1300z	27/03 [315/00] Out 1303z S2		Malc	MON
	1300z	06/04 [314/00] Out 1303z S5 (Finnish SDR)		Malc	THU
	1300z	10/04 [312/00] Out 1303z S3 (Finnish SDR)		Malc	MON
	1300z	13/04 [315/00] Out 1303z S2 (Dutch SDR)		Malc	THU
	1300z	17/04 [319/35 65545.....65575] Out 1310z S5 (Finnish SDR)	(Finnish SDR)	Malc	MON
	1300z	24/04 [315/00] Out 1303z S2 (Dutch SDR)		Malc	MON
	1300z	27/04 [314/00] Out 1303z S2 (Finnish SDR)		Malc	THU
5737kHz	2000z	02/03 [522/00] Out 2003z S5		Malc, HfD	THU
	2000z	05/03 [524/00] Out 2003z S9		Malc	SUN
	2000z	09/03 [520/00] Out 2003z S5		Malc	THU
	2000z	12/03 [522/00] Out 2003z S9		Malc	SUN
	2000z	16/03 [520/00] Out 2003z S7		Malc	THU
	2000z	19/03 [522/00] Out 2003z S5		Malc	SUN
	2000z	23/03 [527/33 63484.....64443] Out 2010z S5 (Dutch SDR)	(Dutch SDR)	Malc	THU
	2000z	05/04 [521/00] Out 2002z S3		Malc	THU
	2000z	13/04 [525/00] Out 2003z S4		Malc	THU
	2000z	16/04 [528/00] Out 2003z S5		Malc	SUN

	2000z	20/04 [521/00] Out 2003z S9		Malc	THU
	2000z	27/04 [525/37 36451.....94719] Out 2011z S4		Malc	THU
5941kHz	0820z	02/03 [430/33 54291 99509 03226 98694 04678 27300 01654.....50303 40027] Out 0830z		RNGB, Malc	THU
	0820z	09/03 [438/00] Weak + QRM		RNGB	THU
	0820z	09/03 [438/00] Out 0823z S2 (Dutch SDR)		Malc	THU
	0820z	10/03 [430/00] Out 0823z S2 (Dutch SDR)		Malc	FRI
	0830z	16/03 [430/00] Fair		RNGB	THU
	0820z	17/03 [435/00] Out 0823z S2		Malc	FRI
	0820z	23/03 [431/00] Out 0823z S2		Malc	THU
	0820z	24/03 [439/00] Out 0823z S3		Malc	FRI
	0820z	31/03 [431/00] Fair		RNGB, Malc	FRI
	0820z	13/04 [432/00] Out 0823z S5 (Finnish SDR)		Malc	THU
	0820z	14/04 [432/00] Out 0823z S2		Malc	FRI
	0820z	20/04 [438/32 01640.....82746] Out 0829z S3 (Dutch SDR)		Malc	THU
	0820z	27/04 [439/00] Out 0823z S3 (Dutch SDR)		Malc	THU
	0820	28/04 [438/00] Out 0823z S4 (Dutch SDR)		Malc	FRI
6923kHz	1205z	01/03 [461/00] Out 1208z S3 (Dutch SDR)		Malc, HfD	WED
	1715z	01/03 [972/00] Out 1718z S7		Malc, HfD	WED
	1715z	03/03 [970/00] Out 1718z S9		Malc	FRI
	1205z	08/03 [469/00] Out 1208z S3 (Dutch SDR)		Malc	WED
	1715z	08/03 [977/34 44182.....74024] Out 1725z S5		Malc	WED
	1205z	14/03 [466/00] Out 1208z S2		Malc	TUE
	1205z	15/03 [465/00] Out 1208z S2		Malc	WED
	1715z	15/03 [975/00] Out 0718z S6		Malc	WED
	1715z	17/03 [978/00] Out 1718z S6		Malc	FRI
	1205z	21/03 [460/39 90854.....47021] Out 1216z S2		Malc	TUE
	1715z	22/03 [974/00] Out 1818z S6		Malc	WED
	1715z	24/03 [978/00]		Gary H	FRI
	1205z	28/03 [466/00] Out 1208z S2		Malc, dMHz	TUE
	1205z	29/03 [463/00] Out 1208z S4 (Dutch SDR)		Malc	WED
	1715z	29/03 [977/00] Out 1718z S3		Malc	WED
	1715z	31/03 [978/00] Out 1718z S4		Malc	FRI
	1205z	04/04 [466/00] Out 1208z S2		Malc	TUE
	1205z	05/04 [463/00] Out 1208z S2		Malc	WED
	1715z	05/04 [974/00] Out 1719z S5		Malc	WED
	1205z	11/04 [462/00] Out 1205z S3 (Dutch SDR)		Malc	TUE
	1205z	12/04 [460/00] Out 1208z S3 (Dutch SDR)		Malc	WED
	1715z	12/04 [975/37 07108.....85309] Out 0718z S4		Malc	WED
	1205z	18/04 [462/00] Out 1208z S3 (Finnish SDR)		Malc	TUE
	1205z	19/04 [461/00] Out 1208z S2		Malc	WED
	1715z	19/04 [977/00] Out 1718z S3		Malc	WED
	1715z	21/04 [972/00] Out 1718z S7		Malc	FRI
	1205z	25/04 [465/31 68686.....59841] Out 1215z S3 (Dutch SDR)		Malc	TUE
	1715z	26/04 [975/00] Out 1718z S4		Malc	WED
	1715z	28/04 [976/00] Out 1718z S3		Malc	FRI
6940kHz	0930z	01/03 [273/40 03089 51574 41662 37079 02662 54982 35522 81121.....36402 58200] Out 0941z		RNGB, Malc, HfD	WED
	0930z	09/03 [276/00] Out 0933z S3 (Dutch SDR)		Malc	THU
	0930z	16/03 [275/00] Out 0933z S2		Malc	THU
	0930z	22/03 [271/00] Out 0933z S2		Malc	WED
	0930z	23/03 [277/00] Out 0933z S3 (Dutch SDR)		Malc	THU
	0930z	29/03 [279/00] Out 0933z S2		Malc	WED
	0930z	06/04 [279/00] Out 0933z S2		Malc	THU
	0930z	12/04 [271/38 08534.....18580] Out 0941z S4 (Dutch SDR)		Malc	WED
	0930z	26/04 [271/00] Fair		RNGB	WED
	0930z	27/04 [276/00] Out 0933z S5 (Dutch SDR)		Malc	THU
7317kHz	1900z	02/03 [644/00] Out 1903z S6		Malc, HfD	THU
	1900z	06/03 [646/35 70067.....52490] Out 1910z S9		Malc	MON
	1900z	13/03 [649/00] Out 1903z S9		Malc	MON
	1900z	16/03 [647/00] Out 1903z S7		Malc	THU
	1900z	20/03 [643/00] Out 1903z S9		Malc	MON
	1900z	23/03 [647/00] Out 1903z S9		Malc	THU
	1900z	27/03 [648/00] Out 1903z S6		Malc	MON
	1900z	03/04 [644/35 74676.....65378] Out 1910z S9		Malc	MON
	1900z	10/04 [648/00] Out 1903z S9		Malc	MON
	1900z	13/04 [647/00] Out 1903z S3		Malc	THU
	1900z	17/04 [647/00] Out 1903z S5		Malc, dMHz	MON
	1900z	20/04 [644/00] Out 1903z S7		Malc	THU
	1900z	24/04 [640/00] Out 1903z S5		Malc	MON

	1900z	27/04 [641/00] Out 1903z S4	Malc	THU
7864kHz	1730z	02/03 [418/00] Out 1733z S7	Malc	THU
	1730z	09/03 [412/00] Out 1733z S4	Malc, HfD	THU
	1730z	16/03 [412/00] Out 1733z S9	Malc	THU
	1730z	06/04 [411/37 94373.....46707] Out 1741z S6	Malc	THU
	1730z	13/04 [414/00] Out 1733z S9+10	Malc, Gary H	THU
	1730z	20/04 [415/00] Out 1733z S3	Malc	THU
	1730z	27/04 [410/00] Out 0733z S4	Malc	THU
8180kHz	0700z	03/03 [576/00] Out 0713z S4	Malc, HfD	FRI
	0700z	07/03 [576/00] Out 0703z S3	Malc	TUE
	0700z	14/03 [579/00] Out 0703z S5	Malc	TUE
	0700z	17/03 [579/00] Out 0703z S3	Malc	FRI
	0700z	24/03 [571/00] Good	RNGB	FRI
	0700z	28/03 [571/35 76292.....79508] Out 0710z S4	Malc	TUE
	0700z	04/04 [576/38 03623.....19183] Out 0711z S2	Malc	TUE
	0700z	11/04 [574/00] Out 0703z S6	Malc	TUE
	0700z	14/04 [577/00] Out 0703z S3	Malc	FRI
	0700z	18/04 [573/00] Good	RNGB	TUE
	0700z	21/04 [576/00] Good	RNGB, Malc	FRI
	0700z	25/04 [575/00] Out 0703z S3	Malc	TUE
	0700z	28/04 [571/00] Out 0703z S3	Malc	FRI
8423kHz	0645z	07/03 [510/00]	HfD	TUE
	0645z	28/03 [514/00] Out 0648z S3	Malc	TUE
	0645z	04/04 [518/00] Out 0648z S4	Malc	TUE
	0645z	06/04 [517/00] Good	RNGB	THU
	0645z	11/04 [517/00] Out 0648z S4	Malc	TUE
	0645z	13/04 [512/00] Out 0648z S3	Malc	THU
	0645z	18/04 [519/00] Good	RNGB	TUE
	0645z	20/04 [511/00] Out 0648z S3	Malc	THU
0645z	25/04 [515/39 68276.....91394] Out 0656z S2	Malc	TUE	
8530kHz	1910z	03/03 [616/36 55669.....86495] Out 1920z S8	Malc, HfD	FRI
	1910z	10/03 [614/00] Out 1913z S7	Malc	FRI
	1910z	12/03 [612/00] Out 1913z S9	Malc	SUN
	1910z	17/03 [612/00] Out 1913z S7	Malc	FRI
	1910z	19/03 [612/00] Out 1913z S5	Malc	SUN
	1910z	26/03 [616/00] Out 1913z S5	Malc	SUN
	1910z	16/04 [610/32 80095 41548 39413 98825 92069 82903 28047 67724.....96814 82929]	dMHz	SUN
	1910z	21/04 [613/00] Out 1918z S9	Malc	FRI
1910z	28/04 [614/00] Out 1913z S7	Malc	FRI	
8680kHz	0600z	12/03 [355/00]	HfD	SUN
	0600z	07/04 [359/34 54888 96766 48044 77191 60372 80079 89196 56196.....14067 06694] Good	RNGB	FRI
	0600z	16/04 [358/00] Out 0603z S4	Malc	SUN
	0600z	23/04 [354/00] Out 0703z S3	Malc	SUN
9079kHz	0700z	04/03 [490/00]	HfD	SAT
	0700z	05/03 [491/00] Out 0703z S3	Malc	SUN
	0700z	12/03 [496/31 22488.....58487] Out 0710z S4	Malc	SUN
	0700z	18/03 [495/00] Out 0703z S5	Malc	SAT
	0700z	19/03 [496/00] Out 0703z S4	Malc	SUN
	0700z	15/04 [490/00] Out 0703z S4	Malc	SAT
	0700z	16/04 [490/00] Out 0703z S3	Malc	SUN
	0700z	22/04 [498/00] Out 0703z S3	Malc	SAT
0700z	23/04 [492/00] Out 0703z S2	Malc	SUN	
9951kHz	1000z	03/03 [305/00] Out 1003z S3	Malc, HfD	FRI
	1000z	07/03 [306/00] Out 1003z S3	Malc	TUE
	1000z	10/03 [309/00] Out 1003z S3	Malc	FRI
	1000z	14/03 [306/00] Out 0903z S2	Malc	TUE
	1000z	17/03 [306/00] Out 1003z S3	Malc	FRI
	1000z	21/03 [302/35 19426.....35533] Out 1009z S3	Malc	TUE
	1000z	31/03 [302/00] Out 1003z S5	Malc	FRI
	1000z	04/04 [301/00] Out 1003z S3	Malc	TUE
	1000z	11/04 [307/00] Out 1003z S2	Malc	TUE
	1000z	14/04 [307/00] Out 1003z S3	Malc	FRI
	1000z	18/04 [308/22 36500.....59703] Out 1008z S3	Malc	TUE
	1000z	25/04 [304/00] Out 1003z S3	Malc	TUE
	1000z	28/04 [305/00] Out 1003z S3	Malc	FRI

9963kHz	0715z	03/03 [630/00] Out 0718z S4	Malc, HfD	FRI
	0715z	07/03 [636/00] Out 0718z S3	Malc	TUE
	0715z	10/03 [630/00] Out 0718z S4	Malc	FRI
	0715z	14/03 [639/00] Good	RNGB	TUE
	0715z	17/03 [631/00] Out 0718z S4	Malc	FRI
	0715z	21/03 [631/00] Out 0718z S5	Malc	TUE
	0715z	24/03 [639/00] Out 0718z S2	Malc	FRI
	0715z	04/04 [634/00] Out 0718z S3	Malc	TUE
	0715z	11/04 [635/00] Out 0718z S3	Malc	TUE
	0715z	14/04 [639/00] Out 0718z S5	Malc	FRI
	0715z	18/04 [630/35 10705 47454 19547 30443 80607 66334 36403 89322 86717.....87574 58629]	RNGB	TUE
	0715z	28/04 [637/00] Good	RNGB	FRI
9968kHz	0900z	01/03 [538/00] Out 0903z S5	Malc, HfD	WED
	0900z	06/03 [534/31 15597.....89060] Out 0910z S4	Malc	MON
	0900z	13/03 [537/00] Out 0903z S4	Malc	MON
	0900z	15/03 [533/00] Out 0903z S3	Malc	WED
	0900z	20/03 [538/00] Strong	RNGB, Malc	MON
	0900z	22/03 [537/00] Out 0903z S3	Malc	WED
	0900z	27/03 [536/00] Out 0903z S4	Malc	MON
	0900z	29/03 [534/00] Out 0903z S4	Malc	WED
	0900z	05/04 [535/00] Out 0903z S3	Malc	WED
	0900z	10/04 [534/00] Out 0903z S5	Malc	MON
	0900z	12/04 [537/00] Out 0903z S3	Malc	WED
	0900z	17/04 [533/00] Out 0903z S3	Malc	MON
	0900z	19/04 [538/00] Out 0903z S3	Malc	WED
	0900z	24/04 [533/38 36847.....64226] Out 0911z S3	Malc	MON
10200kHz	1045z	01/03 [698/00] Out 1048z S5	Malc, HfD	WED
	1045z	08/03 [691/32 57832.....94411] Out 1055z S3	Malc	WED
	1045z	13/03 [697/00] Out 1048z S5	Malc	MON
	1045z	20/03 [698/00] Out 1048z S4	Malc	MON
	1045z	22/03 [698/00]	dMHz	WED
	1045z	27/03 [696/00] Out 1048z Strong	dMHz, Malc	MON
	1045z	05/04 [694/00] Out 1048z S3	Malc	WED
	1045z	10/04 [698/00] Out 1048z S3	Malc	MON
	1045z	12/04 [696/00] Out 1048z S5	Malc	WED
	1045z	17/04 [694/00] Out 1048z S3	Malc	MON
	1045z	19/04 [693/00] Out 1049z S3	Malc	WED
	1045z	24/04 [698/31 13576.....74036] Out 1054z S3	Malc	MON
10213kHz	0745z	06/03 [261/00] Out 0748z S9	Malc, HfD	MON
	0745z	13/03 [264/35 95325 90873 68480 43572 32440 96448 47946 48205.....03347 19140] Strong	RNGB	MON
	0745z	20/03 [266/00] Out 0748z S6	Malc	MON
	0745z	27/03 [267/00] Out 0748z S5	Malc	MON
	0745z	03/04 [264/00] Good	RNGB, Malc	MON
	0745z	10/04 [262/39 14488 47335 61011 09989 49773 76197 65735 76137.....50795 78224] Good	RNGB	MON
	0745z	17/04 [266/00] Out 0748z S8	Malc	MON
	0745z	24/04 [260/00] Out 0748z S2	Malc	MON
10330kHz	1530z	02/03 [264/00] Out 1533z S9	Malc, HfD	THU
	1530z	09/03 [264/00] Out 1533z S7	Malc	THU
	1530z	16/03 [264/35 95325.....19140] Out 1540z S9	Malc	THU
	1530z	06/04 [261/00] Out 1533z S9	Malc	THU
	1530z	13/04 [262/39 ??188 to 78224] Out 1533z S9	Malc	THU
	1530z	20/04 [261/00] Out 1533z S9	Malc, Gary H	THU
	1530z	27/04 [261/00] Out 1533z S5	Malc, Gary H	THU
11092khz	0315z	01/03 [251/00]	HfD	WED
11116kHz	1815z	03/03 [924/00] Out 1818z S7	Malc, HfD	FRI
	1815z	05/03 [925/00] Out 1818z S9	Malc	SUN
	1815z	10/03 [926/32 20171.....76949] Out 1825z S6	Malc	FRI
	1815z	17/03 [929/00] Out 1818z S7	Malc	FRI
	1815z	19/03 [925/00] Out 1818z S7	Malc	SUN
	1815z	24/03 [929/00] Out 1818z S2	Malc	FRI
	1815z	26/03 [920/00] Fair	dMHz, Malc	SUN
	1815z	16/04 [927/38 23308.....33294] Out 1826z S6	Malc	SUN
	1815z	21/04 [929/00] Out 1818z S9	Malc	FRI
	1815z	28/04 [926/00] Out 1818z S9	Malc	FRI

12202kHz	0845z	01/03 [716/00] Out 0848z S3	Malc, RNGB, HfD	WED
	0845z	06/03 [719/00] Out 0848z S5	Malc	MON
	0845z	08/03 [711/00] Strong	RNGB, Malc	WED
	0845z	13/03 [710/00] Out 0848z S7	Malc	MON
	0845z	15/03 [711/00] Weak with QRM	RNGB	WED
	0845z	20/03 [719/38 90419.....49804] Out 0856z S4	Malc	MON
	0845z	27/03 [716/00] Out 0848z S5	Malc	MON
	0845z	29/03 [715/00] Out 0849z S5	Malc	WED
	0845z	03/04 [718/00] Out 0848z S5	Malc	MON
	0845z	05/04 [719/00] Out 0848z S6	Malc	WED
	0845z	10/04 [714/00] Out 0848z S7	Malc	MON
	0845z	12/04 [711/00] Out 0848z S6	Malc	WED
	0845z	17/04 [713/00] Out 0848z S3	Malc	MON
	0845z	19/04 [711/00] Out 0848z S3	Malc	WED
	0845z	24/04 [716/33 15643.....55602] Out 0855z S4	Malc	MON
12530kHz	1230z	02/03 [335/00]	HfD	THU
	1230z	07/03 [332/00] Out 1233z S5	Malc, Gary H	TUE
	1230z	09/03 [333/00] Out 1233z S5	Malc	THU
	1230z	14/03 [338/00] Out 1233z S6	Malc	TUE
	1230z	16/03 [330/00] Out 1233z S5	Malc	THU
	1230z	21/03 [331/34 54893.....44024] Out 1240z S4	Malc	TUE
	1230z	28/03 [332/00] Out 1233z S4	Malc	TUE
	1230z	04/04 [335/00] Out 1233z S4	Malc	TUE
	1230z	06/04 [335/00] Out 1233z S3	Malc	THU
	1230z	11/04 [332/00] Out 1233z S5	Malc	TUE
	1230z	13/04 [335/00] Out 1233z S3	Malc	THU
	1230z	18/04 [331/36 77084.....80291] Out 1241z S3	Malc	TUE
	1230z	25/04 [330/00] Out 1233z S3	Malc	TUE
	1230z	27/04 [334/00] Out 1233z S3	Malc	THU
13470kHz	1745z	05/03 [240/00] Out 1748z S5 (Dutch SDR)	Malc, HfD	SUN
	1745z	06/03 [242/36 61602.....49647] Out 1755z S9	Malc	MON
	1745z	13/03 [248/00] Out 1748z S9	Malc	MON
	1745z	19/03 [247/00] Out 1748z S7	Malc	SUN
	1745z	20/03 [247/00] Out 1748z S9	Malc, Gary H	MON
	1745z	26/03 [246/00] Out 1748z S4	Malc	SUN
	1745z	27/03 [246/00] Out 1748z S7	Malc	MON
	1745z	03/04 [244/00] Out 1748z S9	Malc	MON
	1745z	10/04 [248/00] Out 1748z S9+10	Malc	MON
	1745z	16/04 [246/00] Out 1748z S9	Malc	SUN
	1745z	17/04 [249/37 60151.....21297] Out 1756z S7	Malc	MON
	1745z	24/04 [242/00] Out 1748z S7	Malc	MON
14865kHz	0640z	01/03 [942/00] Good	RNGB, HfD	WED
	0745z	02/03 [223/00] Out 0748z S9	Malc, RNGB, HfD	THU
	0745z	07/03 [229/35 84430 75804 64839 43573 57803 45181 44858 85187.....26840 72843] Fair	RNGB	TUE
	0745z	14/03 [224/00] Out 0748z S7	Malc	TUE
	0745z	16/03 [221/00] Strong	RNGB	THU
	0745z	21/03 [229/00] Out 0748z S7	Malc	TUE
	0745z	23/03 [224/00] Out 0748z S9	Malc	THU
	0745z	28/03 [221/00] Out 0748z S3	Malc	TUE
	0640z	29/03 [945/00] Out 0643z S3	Malc	WED
	0745z	04/04 [221/00] Out 0748z S2	Malc	TUE
	0745z	06/04 [224/00] Fair	RNGB	THU
	0745z	11/04 [228/00] Out 0748z S2	Malc	TUE
	0745z	13/04 [225/00] Out 0748z S9	Malc	THU
	0745z	18/04 [227/35 95216.....39038] Out 0725z S5 QSB3	Malc	TUE
	0745z	25/04 [225/00] Out 0748z S3	Malc	TUE
	0745z	27/04 [224/00] Out 0748z S5	Malc	THU
14972kHz	1430z	04/03 [915/00] Out 1433z S9	Malc, HfD	SAT
	1430z	07/03 [918/00] Out 1433z S8	Malc	TUE
	1430z	11/03 [912/00] Out 1432z S4	Malc	SAT
	1430z	14/03 [910/39 63436 60114 02757 38757 31934 51556 21686.....12011 21959] Out 1440z	Gary H, Malc	TUE
	1430z	25/03 [912/00] Out 1433z S2 (Dutch SDR)	Malc	SAT
	1430z	28/03 [914/00] Out 1433z S3	Malc	TUE
	1430z	01/04 [915/00] Out 1433z S5	Malc, Gary H	SAT
	1430z	04/04 [914/32 68157.....71359] Out 1440z S5	Malc	TUE
	1430z	11/04 [911/00] Out 1433z S9	Malc	TUE
	1430z	15/04 [911/00] Out 1433z S6	Malc	SAT
	1430z	18/04 [915/00] Out 1433z S5	Malc	TUE

	1430z	22/04 [911/00] Out 1433z S4		Malc	SAT
	1430z	25/04 [919/00] Out 1433z S4		Malc	TUE
15632kHz	0715z	01/03 [757/00] Out 0718z S2		Malc, RNGB, HfD	WED
	0715z	06/03 [751/00] Out 0718z S5		Malc	MON
	0715z	08/03 [750/00] Out 0718z S9		Malc	WED
	0715z	13/03 [757/00] Out 0718z S7		Malc	MON
	0715z	15/03 [750/00] Out 0718z S2		Malc	WED
	0715z	20/03 [753/32 56788.....52519] Out 0725z S2		Malc	MON
	0715z	27/03 [751/00] Out 0718z S2		Malc	MON
	0715z	29/03 [750/00] Fair		RNGB	WED
	0715z	29/03 [750/00] Out 0718z S9		Malc	WED
	0715z	03/04 [754/00] Out 0718z S2		Malc	MON
	0715z	05/04 [752/00] Out 0718z S2		Malc	WED
	0715z	10/04 [753/00] Out 0718z S2+QRM		Malc	MON
	0715z	12/04 [753/00] Out 0718z S2		Malc	WED
	0715z	17/04 [752/00] Out 0718z S3		Malc	MON
	0715z	19/04 [751/00] Fair		RNGB	WED
	0715z	24/04 [755/33 80049 10991 44906 37960 67349 13090 99086.....13084 14677] Out 0725z		RNGB, Malc	MON
15905kHz	0830z	03/03 [185/00] Out 0833z S2		Malc, HfD	FRI
	0830z	06/03 [182/00] Out 0833z S4		Malc	MON
	0830z	10/03 [188/00] Fair		RNGB, Malc	FRI
	0830z	13/03 [184/00] Good		RNGB	MON
	0830z	17/03 [184/00] Out 0833z S9		Malc	FRI
	0830z	20/03 [189/33 52890.....76902] Out 0840z S3 (Finnish SDR)		Malc	MON
	0830z	24/03 [189/33 52890 40828 99264 31673 68907 39142 46906 12110 62119.....76902 36346]		RNGB, Malc	FRI
	0830z	27/03 [185/00] Out 0833z S2		Malc	MON
	0830z	31/03 [184/00] Out 0833z S8		Malc	FRI
17410kHz	0745z	01/03 [340/00] Out 0748z S2 (Dutch SDR)		Malc, RNGB, HfD	WED
	0745z	03/03 [344/00] Out 0748z S2		Malc	FRI
	0745z	08/03 [349/00] Weak		RNGB	WED
	0745z	10/03 [342/00] Out 0748z S2		Malc	FRI
	0745z	15/03 [246/38 56559.....25657] Out 0756z S2		Malc	WED
	0745z	17/03 [346/38 56559.....25657] Out 0756z S5		Malc	FRI
	0745z	22/03 [343/00] Out 0748z S2 (Dutch SDR)		Malc	WED
	0745z	24/03 [348/00] Good (Polish SDR)		RNGB	FRI
	0745z	29/03 [347/00] Out 0748z S2		Malc	WED
	0745z	31/03 [347/00] Out 0748z S2		Malc	FRI
	0745z	05/04 [343/00] Out 0748z S2		Malc	WED
	0745z	12/04 [346/00] Out 0748z S2 (Dutch SDR)		Malc	WED
	0745z	14/04 [340/00] Good (Polish SDR)		RNGB	FRI
	0745z	19/04 [349/00] Good (Polish SDR)		RNGB	WED
	0745z	21/04 [340/00] Out 0748z S9		Malc	FRI
	0745z	26/04 [349/31 86590.....95190] Out 0755z S2 (Finnish SDR)		Malc	WED
18168kHz	0845z	02/03 [150/00]		HfD	THU
	0845z	07/03 [152/00] Out 0848z S2		Malc	TUE
	0845z	09/03 [150/00] Out 0848z S2		Malc	THU
	0845z	14/03 [157/00] Out 0848z S2		Malc	TUE
	0845z	16/03 [151/00] Out 0848z S6		Malc	THU
	0845z	21/03 [157/00] Out 0848z S2		Malc	TUE
	0845z	23/03 [150/00] Out 0903z S4		Malc	THU
	0845z	04/04 [157/33 17122.....39767] Out 0855z S3 (Dutch SDR)		Malc	TUE
	0845z	11/04 [157/00] Out 0848z S2 (Dutch SDR)		Malc	TUE
	0845z	13/04 [154/00] Out 0848z S2		Malc	THU
	0845z	18/04 [154/00] Out 0848z S2 (Dutch SDR)		Malc	TUE
	0845z	20/04 [155/00] Out 0848z S4		Malc	THU
	0845z	25/04 [157/00] Out 0848z S2		Malc	TUE
	0845z	27/04 [152/00] Out 0848z S2		Malc	THU
19184kHz	0820z	01/03 [130/00] Out 0823z S2 (Dutch SDR)		Malc, HfD	WED
	0820z	05/03 [132/00] Out 0823z S3 (Dutch SDR)		Malc	TUE
	0820z	08/03 [136/00] Out 0823z S3 (Dutch SDR)		Malc	WED
	0820z	14/03 [136/38 30222.....40996] Out 0831z S3 (Dutch SDR)		Malc	TUE
	0820z	21/03 [134/00] Out 0823z S3 (Dutch SDR)		Malc	TUE
	0820z	22/03 [130/00] Out 0823z S2 (Dutch SDR)		Malc	WED
	0820z	28/03 [134/00] Out 0823z S3 (Dutch SDR)		Malc	TUE
	0820z	29/03 [136/00] Out 0823z S5		Malc	WED
	0820z	04/04 [131/00] Out 0823z S2 (Finnish SDR)		Malc	TUE
	0820z	05/04 [130/00] Out 0823z S2 (Dutch SDR)		Malc	WED

0820z	11/04 [136/00] Out 0823z S2	(Dutch SDR)	Malc	TUE
0820z	12/04 [133/00] Out 0823z S2	(Dutch SDR)	Malc	WED
0820z	19/04 [136/32 47640.....14746] Out 0830z S2	(Dutch SDR)	Malc	WED
0820z	25/04 [138/00] Out 0823z S5	(Dutch SDR)	Malc	TUE
0820z	26/04 [135/00] Out 0823z S2	(Finnish SDR)	Malc	WED
20170kHz	0830z	10/04 [182/00]	Ary	MON
	0830z	14/04 [182/00] Weak	RNGB, Malc	FRI
	0830z	17/04 [189/29 15195.....21442] Out 0839z S3	(Finnish SDR)	MON
	0830z	28/04 [184/00] Out 0833z S3	(Dutch SDR)	FRI

From PoSW we have:

A small selection of transmissions heard from this busy number station although, as usual, mostly of the "no message" format lasting just over three minutes. Stays on UTC so with the start of summertime we have to get used to tuning in one hour later local time.

4181 kHz

4-Mar-23, Saturday, 1910 UTC, "394/00", strong.
 25-Mar-23, Saturday:- 1910 UTC, "394/39", message, very strong, "Out" at 1921z.
 29-Mar-23, Wednesday:- 1910 UTC, "399/00", very strong signal.
 15-Apr-23, Saturday:- 1910 UTC, "399/33", message, "Out" just before 1920z.
 22-Apr-23, Saturday:- 1910 UTC, "390/00".

7317 kHz

9-Mar-23, Thursday:- 1900 UTC, "646/35", message.
 27-Mar-23, Monday:- 1900 UTC, "648/00".
 30-Mar-23, Thursday:- 1900 UTC, "644/00".
 10-Apr-23, Monday:- 1900 UTC, "648/00", strong signal.
 27-Apr-23, Thursday:- 1900 UTC, "641/00".

8180 kHz:-

31-Mar-23, Friday:- 0700 UTC, "571/35", message, "Out" after 0710z.
 28-Apr-23, Friday:- 0700 UTC, "571/00".

8530 kHz:-

3-Mar-23, Friday:- 1910 UTC, "616/36", message, good signal.
 14-Apr-23, Friday:- 1910 UTC, "610/32", message.
 21-Apr-23, Friday:- 1910 UTC, "613/00".

14865 kHz

14-Mar-23, Tuesday:- 0745 UTC, "224/00".
 16-Mar-23, Thursday:- 0745 UTC, "221/00".
 21-Mar-23, Tuesday:- 0745 UTC, "229/00".
 28-Mar-23, Tuesday:- 0745 UTC, "221/00".
 25-Apr-23, Tuesday:- 0745 UTC, "225/00", weak signal.

14972 kHz

1-Apr-23, Saturday:- 1430 UTC, "915/00".
 8-Apr-23, Saturday:- 1430 UTC, "914/32", message.
 15-Apr-23, Saturday:- 1430 UTC, "911/00".
 22-Apr-23, Saturday:- 1430 UTC, "911/00".

15905 kHz

10-Mar-23, Friday:- 0830 UTC, "188/00", strong.
 13-Mar-23, Monday:- 0830 UTC, "184/00".
 Became a much weaker signal as the hours of daylight have increased.

17410 kHz

8-Mar-23, Wednesday:- 0745 UTC, "349/00", good signal.
 17-Mar-23, Friday:- 0745 UTC, "346/38", message, "Out" at 0755:50s UTC approx.
 21-Apr-23, Friday:- 0745 UTC, "340/00".

S06

S06 log Mar/April 2022

Friday 1st & 3rd	2000z	9412khz	2100z	6985kHz
17/03 '637' 00000				
	1900z	9412kHz	2000z	6985kHz
07/04 '637' 00000				
21/04 '637' 00000				

Wednesday

0900z 12188kHz 1000z ??

08/03 '480' 239 44 36908 35835 31904 81080 18356 82599 11525 09955 15669 60998 34394 32356 28093 25141 87174 96541 11914 62207 86428 28445 27894 00991 22483 40482 87266 07508 19628 63724 25603 06734 95628 94444 54398 25550 19913 65944 62410 49307 34365 62450 30569 59042 49937 58202 239 44 00000] 0912z S3 Thanks Malc

22/03 '480' 593 44 84385 02233 32666 02585 01921 66086 88729 54680 04965 79335 25984 41166 70541 92449 13303 85017 16590 36384 51092 13958 64950 21574 35374 12960 46909 92803 54055 87610 92227 73725 26084 47466 34377 10233 10401 79513 57755 49501 13643 28472 72436 47109 34818 96901 593 44 00000

29/03 '480' 359 41 68080 27822 77305 23843 95883 08867 73626 67677 92924 75241 52066 01630 66200 57401 85453 00773 88198 03406 11905 45671 09335 66502 84676 22763 63948 35769 95824 79412 94441 15470 32175 64478 75710 14096 73995 85328 87650 23576 55716 55206 359 41 00000 ?? (missing one group) - thanks Malc

0900z 13547kHz 1000z 11073kHz

12/04 '480' 931 42 26964 64582 70589 82923 26824 89765 58148 80068 26130 49585 12374 52666 98472 56009 61612 32882 66922 09444 32084 68156 93716 75140 80939 82960 24283 85906 67011 92711 84220 02044 85796 79127 01365 91883 34722 11922 39634 27120 73397 67790 67444 71952 931 42 00000] 0912z (thanks Malcolm)

19/04 '480' 123 45 82278 69397 10380 76271 14863 88731 73774 73536 63766 95243 26968 41395 63128 96786 40981 20337 35927 48027 34645 30416 98984 84605 62433 92695 18405 48811 46057 69549 98345 46084 51275 56631 32823 01662 61147 39116 81816 88102 52005 49441 28064 45881 72465 94685 14422 123 45 00000] 0913z (thanks Malcolm)

26/04 '480' 532 41 03502 03509 36186 95310 79960 07326 52160 18011 51109 63456 71343 84626 12319 77855 15874 69732 20702 50068 21427 56804 37428 93523 64082 66656 82322 41345 47287 45244 79990 55125 53932 84261 81065 15611 11647 59150 38171 67320 81254 14907 68700 532 41 00000] 0912z (thanks Malcolm)

Tuesday

0800z 10755kHz

14/03 '975' 482 60 20926 85329 58477 57352 29733 68303 02718 98753 04427 13705 56866 42593 76126 69778 00397 52531 69556 67247 97452 76890 39392 19798 93003 98210 61782 00441 88401 79775 10737 42186 38521 20049 74062 36478 37662 50961 88532 27813 86418 40978 98995 27998 56683 88896 71081 98463 96988 19291 12219 74085 45369 15573 80640 26953 41928 51566 87055 93505 58297 07577 482 60 00000 Thanks Ary

Tuesday

1425z 12176kHz

21/03 '583' 926 48 88701 39029 23956 05124 97417 57839 40297 30439 68767 73216 08596 72651 61284 08173 54194 14286 45918 65973 38638 87849 65195 45370 51925 14281 65423 46742 23096 41546 64805 94304 36561 90314 58097 62356 71323 94387 25201 03437 73979 80857 05321 35762 98646 31528 48451 09682 35323 67866 926 48 00000 Thanks Ary

1500z 14913kHz 1600z 10387kHz

21/03 '387' 164 2 11111 00061 164 2 00000 '387' 387 32 22382 65474 restart 387 (R) 590 32 22382 65474 62419 10368 87348 74067 52591 61352 15069 62665 67468 12135 90317 42345 67239 36513 30763 89501 05673 67485 34248 35902 13298 49612 89089 91434 05468 25894 71850 10254 21258 27788 590 32 00000 Thanks Ary

Wednesday

1500z 14913kHz 1600z 10387kHz

22/03 '387' 164 2 11111 00061 '387' 590 32 22382....etc (repeat of Tuesday) HfD

Other:

0400z 11616kHz 0420z 9322khz

01/03 '480' 267 51 91351.....etc via KiwiSDR J (Thanks HfD)

PoS W writes:

First + Third Fridays in the Month Schedule:-

3-Mar-23:- 2100 UTC, 6985 kHz, "637 637 637 00000", strong signal. Must be the second sending, unable to find a transmission on a higher frequency at 2000z. Frequencies in March of last year were 9268 + 6775.

17-Mar-23:- 2100 UTC, 6985 kHz, "637 637 637 00000", strong, still nothing found at 2000 UTC.

Moved by one hour UTC in April but still appears at 8 and 9 pm in the UK because of the clocks "spring forward" for BST.

7-Apr-23:- 1902 UTC, 9412 kHz, the elusive first sending found in progress, weak signal, "637 637 637 00000".

2000 UTC, 6985 kHz, much stronger.

21-Apr-23:- 1900 UTC, 9412 kHz, "637 637 637 00000", weak signal, weak FSK on same or very close frequency.

2000 UTC, 6985 kHz, much stronger.

S11a log March/April

Table with 5 columns: Frequency, Date/Time, Call Sign, Station, and Day. Rows include 6433kHz 0830z 04/03 [371/00] Konyetz 0833z S3, 0830z 05/03 [376/00] Konyetz 0833z S3, 0830z 11/03 [372/00] Konyetz 0833z S5, and 0830z 18/03 [376/35 92984.....05765] Konyetz 0842z S2.

	0830z	25/03 [377/00]	Konyetz 0833z S3		Malc	SAT
	0830z	26/03 [379/00]	Konyetz 0833z S3		Malc	SUN
	0830z	01/04 [371/00]	Konyetz 0833z S3		Malc	SAT
	0830z	15/04 [378/00]	Konyetz 0833z S2		Malc	SAT
	0830z	22/04 [378/00]	Konyetz 0833z S2		Malc	SAT
	0830z	23/04 [370/00]	Konyetz 0833z S2		Malc	SUN
6480kHz	0915z	03/03 [481/00]	Konyetz 0918z S2		Malc, RNGB, HfD	FRI
	0915z	06/03 [482/00]	Konyetz 0918z S2	(Dutch SDR)	Malc	MON
	0915z	10/03 [485/00]	Fair		RNGB, Malc	FRI
	0915z	13/03 [486/00]	Konyetz 0918z S2		Malc	MON
	0915z	17/03 [481/00]	Konyetz 0918z S2		Malc	FRI
	0915z	20/03 [480/37 35096 19363 96585 50105 67998 84827 87522.....37059 38972]	Good		RNGB	MON
	0915z	27/03 [480/00]	Konyetz 0918z S4	(Dutch SDR)	Malc	MON
	0915z	31/03 [485/00]	Konyetz S2		Malc	FRI
	0915z	03/04 [484/00]	Konyetz 0918z S2		Malc	MON
	0915z	10/04 [481/00]	Konyetz 0918z S2		Malc	MON
	0915z	14/04 [482/00]	Konyetz 0918z S2		Malc	FRI
	0915z	17/04 [486/39 88004.....24310]	Konyetz 0926z S4	(Dutch SDR)	Malc	MON
6797kHz	1400z	03/03 [425/00]	Konyetz 1403z S2		Malc, HfD	FRI
	1400z	07/03 [429/00]	Konyetz 1403z S2		Malc	TUE
	1400z	10/03 [422/00]	Konyetz 1403z S3	(Dutch SDR)	Malc	FRI
	1400z	14/03 [427/39 44870.....14027]	Konyetz 1412z S2		Malc	TUE
	1400z	21/03 [425/00]	Out 1403z S2		Malc	TUE
	1400z	28/03 [424/00]	Konyetz 1403z S2		Malc	TUE
	1400z	31/03 [420/00]	Konyetz S5	(Dutch SDR)	Malc	FRI
	1400z	14/04 [425/00]			Ary	FRI
8597kHz	0700z	02/03 [477/00]	Konyetz 0703z S6		Malc, RNGB, HfD	THU
	0700z	06/03 [471/00]	Konyetz 0703z S3		Malc	MON
	0700z	16/03 [475/00]	Konyetz 0703z S5		Malc	THU
	0700z	20/03 [470/00]	Konyetz 0703z S4		Malc	MON
	0700z	23/03 [477/00]	Konyetz 0703z S4		Malc	THU
	0700z	27/03 [470/36 21150.....42806]	Konyetz 0711z S4		Malc	MON
	0700z	03/04 [478/00]	Good		RNGB, Malc	MON
	0700z	06/04 [476/00]	Konyetz 0703z S3		Malc	THU
	0700z	10/04 [477/32 95850 32899 55595 70895 79732 75569 83029 65329.....02627 85875]	Good		RNGB	MON
	0700z	17/04 [472/00]	Konyetz 0703z S3		Malc	MON
	0700z	20/04 [470/00]	Good		RNGB, Malc	THU
	0700z	24/04 [478/00]	Konyetz 0703z S5		Malc	MON
	0700z	27/04 [475/00]	Konyetz 0703z S3		Malc	THU
10213kHz	1850Z	01/03 [282/00]			HfD	WED
	1850z	04/03 [282/00]	Konyetz 1853z S9		Malc	SAT
	1850z	08/03 [285/35 13386.....94399]	Konyetz 1902z S9		Malc	WED
	1850z	15/03 [282/00]	Konyetz 1853z S5		Malc	WED
	1850z	22/03 [282/00]	Konyetz 1853z S6		Malc	WED
	1850z	25/03 [287/00]	Konyetz 1853z S6		Malc	SAT
	1850z	29/03 [286/00]	Konyetz 1853z S7		Malc	WED
	1850z	01/04 [282/00]	Konyetz 1853z S6		Malc	SAT
	1850z	05/04 [287/00]	Konyetz 1853z S8		Malc	WED
	1850z	15/04 [282/00]	Konyetz 1853z S9		Malc	SAT
	1850z	19/04 [281/34 15728.....72630]	Konyetz 1902z S7		Malc	WED
	1850z	26/04 [286/00]	Konyetz 1853z S3		Malc	WED
10728kHz	0445z	02/03 [794/00]			HfD	THU
11116kHz	0510z	01/03 [650/00]			HfD	WED
11420kHz	1400z	18/04 [427/00]	Konyetz 1403z S3		Malc	TUE
	1400z	21/04 [420/00]	Konyetz 1403z S3		Malc	FRI
	1400z	25/04 [429/00]	Konyetz 1403z S3		Malc	TUE
	1400z	28/04 [426/00]	Konyetz 1403z S3		Malc	FRI
14769kHz	0500z	02/03 [382/00]			HfD	THU

V02 a

Not heard.

V06

[See Page 34 Active Stations List ... poss link M14]

Ary found Spanish Lady in progress at 0721z on 10755 kHz, repeating 975. It is still going on at 0944z 10/03. There were several short stops during that period.

10755 10-03-2023 0956 USB test/training transmission. 00000 outro vs the usual 000 000 indicates V06
975 184 60
64724 44034 01229 45550 59401 17440 14375 71832 43463 50519
91176 50654 00618 96355 44781 61406 71062 47114 66954 92581
20565 23225 92720 58730 94030 84916 76824 76509 64460 20816
55436 66992 13277 93275 91563 76443 02918 45131 27583 32725
27666 97570 93334 79553 53628 93804 23230 55760 83822 68228
20797 11764 20677 41772 73154 88132 21076 39548 43188 55305
184 60 00000 Courtesy Ary

10755kHz 0600z 05/04 975 824 1 70871 ... 38110 824 51 00000 [call up 0600z to 0807z] Duration 9m Ary WED

975 (R 2h7m) 824 51
70871 24869 53827 15278 39829 44133 73619 86958 38702 25108
32920 62539 46657 88501 34666 28649 31594 22511 38369 50501
32825 64991 14725 63676 13784 35725 50709 18361 76937 79727
09850 99454 58085 07523 77362 70998 42253 43333 44836 18356
68347 17110 14159 86586 14766 61358 25367 38449 83164 98677
38110
824 51 00000 Courtesy Ary

V07

March 2023

Sunday

0200z 19172kHz 0220z 17472kHz 0240z kHz

17472kHz 0220z 05/03 (112 112 112 000) QSA2 DanAR , T! SUN

Note: Token's transmission details/video here: <https://www.youtube.com/watch?v=zwcPoznxiiU>

12/03 112 1 5597 80 24399 ... 31075 000 000 0220/0240z Weak 0200z -Bad audio, unworkable

112 112 112 1
5597 80
24399 83595 17322 27465 50412
89541 83176 00605 07321 62486
60300 17218 69022 57429 37873
22528 61204 59174 97945 56002
20971 92118 73938 42300 59552
21629 22345 58588 23793 15620
77746 11422 15346 76870 33676
00886 72719 31612 77626 61117
60827 63432 22969 34853 49373
17696 49098 95807 78382 98735
13744 16804 26718 21193 34966
16680 63655 51433 44709 33405
79648 98457 97254 77852 31552
92959 79954 02880 20109 96294
11649 87488 24576 40438 89952
30320 25511 56802 38371 31075
000 000 Courtesy DanAR

19/03 112 1 560 128 29713 ... 47568 000 000 Weak

112 112 112 1
560 128
29713 84588 92648 51557 60181
15717 92789 36648 57583 91082
86458 05960 33995 46179 36797
98884 41125 75491 04526 89745
64129 92867 10794 05908 81653
17272 79870 39769 33995 70298
61493 32410 57311 23684 01983
83289 93424 74305 88466 59111
51515 74319 06867 56337 68493
93741 13674 06928 68434 79678
78301 92078 15837 83228 66036
29934 87262 03124 71910 72601
69902 73580 32209 21391 64315

54395 66491 36651 95976 84622
15462 83009 84728 60444 79977
35220 58355 12233 44147 70944
13920 74145 94377 10291 34403
89330 75382 30823 72316 09419
90293 38194 58702 47994 07799
25284 69196 84635 19287 19277
66934 71210 06131 98894 63381
44909 88312 42213 01622 38719
64459 90417 11892 99263 07941
01914 42641 71188 90233 91720
92832 46796 47568 000 000

Courtesy DanAR

26/03 112 1 690 126 84908 ... 61862 000 000 Weak

112 112 112 1
690 126
84908 65461 58402 00309 96418
45496 44922 58551 19615 26662
94453 41476 66628 82053 51012
25190 68396 45752 77302 23153
93436 70971 49890 14576 45534
08885 85111 63740 34497 46838
56340 37581 63401 50630 55524
42898 28100 50575 33465 61467
73259 73087 63893 23792 80837
90522 97445 23480 52073 44134
92567 92278 07973 13373 47182
44199 17931 59190 52984 35117
69188 08472 16216 66726 96760
97706 62576 36211 12923 21527
20875 20377 50478 83182 01939
89829 15379 86338 03677 23490
38802 58406 10109 31022 65192
49311 75171 67553 94809 73381
36244 79046 23810 04355 02022
96072 28731 32508 82520 44546
40949 29241 03692 83936 36003
20348 93277 31039 35699 04758
66739 17055 62527 58777 60260
85182 58346 29006 31703 97931
01575 76479 40215 23330 80883
61862 000 000 Courtesy DanAR

April 2023

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

02/04 414 1 270 106 80934 ... 85600 000 000 Weak DanAR SUN

414 414 414 1
270 106
80934 32649 16000 69934 82448
65881 52515 58353 61363 26331
20525 95697 79522 54248 81497
07650 39167 57343 88991 34635
95038 14999 54963 20737 39243
01016 62703 41668 89507 25794
18773 76051 42420 42174 66190
31706 08226 57643 84823 76463
28418 51599 51691 14280 28224
03216 98193 77716 18872 39500
25141 93831 94349 86560 41704
73827 61633 93814 23840 85182
77779 98441 39951 33591 69765
91070 92184 11679 17783 20283
45362 74747 93083 16813 34196
15440 18047 70544 10424 11283
23615 63194 53897 04140 19498
07163 75562 20174 25629 67827
76729 81827 26935 24597 07078
91560 48541 37336 35045 65253
36311 69897 78150 00960 91172
85600 000 000 Courtesy DanAR

09/04 414 1 270 106 80934 ... 85600 000 000 Weak DanAR SUN

17431kHz 2300z 16/04 414 1 685 108 45163 ... 83558 000 000 Weak DanAR SUN

414 414 414 1
685 108
45163 42680 79300 38057 93871
31169 07326 50424 62150 24588
10030 28753 14793 34036 65719
73575 11345 51273 09871 83350
99805 25367 28386 54101 77378
54583 93872 39610 08609 45452
93937 79684 94373 43086 51123
87560 55815 05511 34210 70624
24794 34228 53865 13533 55532
07084 63510 44833 15190 14780
62364 26315 60762 75259 64087
16219 08820 21469 62793 11240
96334 55366 32322 28831 93186
21771 15211 87764 26755 68127
69604 76907 22080 00813 75890
09359 03099 85985 77052 20853
18054 15522 10935 45219 68863
91312 17485 09920 59286 26338
67765 7133 66855 08192 98154
72796 46627 07783 033*6 44669
90148 67363 39023 46708 73258
59728 61929 83558 000 000
Courtesy DanAR

414 414 414 1
 748 104
 85077 80999 81650 64167 30676
 62229 29307 61124 09474 45318
 21210 38198 28790 10469 34264
 85499 82746 17306 59530 77875
 84340 72718 14383 45454 42691
 14776 51660 59718 51152 77546
 08880 77712 43335 72811 14822
 63201 56886 42880 51414 08229
 55376 07252 85494 76185 04611
 15368 98961 74491 41051 71231
 23288 33807 97430 59942 19123
 09164 99032 85615 74175 26190
 95916 83315 21173 84399 83278
 55444 11891 31382 26566 13035
 31641 47279 02119 22147 85642
 19936 17647 61454 61360 11530
 49035 07502 41701 37840 61194
 40880 26023 21870 46930 38057
 87767 49747 54655 22226 20813
 81989 42574 93049 76114 40450
 23262 16334 96881 25643
 000 000

Courtesy DanAR

Thanks DanAR

V15 North Korean Intelligence via Radio Pyongyang

No Reports

V24

No Reports

V26

No Reports

Polytones

XPA1 Wed/Fri

Wednesday/Friday

March 2023

1310z	14451kHz	1330z	13451kHz	1350z	12151kHz
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01/03	441 1 06631 00176 54659 ... 66153	Fair, 1350z QSB3
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441 441 441 1 441 441 441 1 441 441

06631 00176 54659 57598 91835 03318 93810 87884 69788 22523
 00273 61301 22769 66245 58568 73253 74778 24995 30324 93605
 55849 68071 13205 14029 40963 94181 56286 93190 21769 52731
 83658 56055 96370 69694 63161 04202 40922 90649 52909 99443
 85406 86235 76899 27020 09205 26054 55672 72161 42075 84756
 22908 56093 68482 67716 52440 46140 23953 70351 17109 13978
 11673 48192 84695 06616

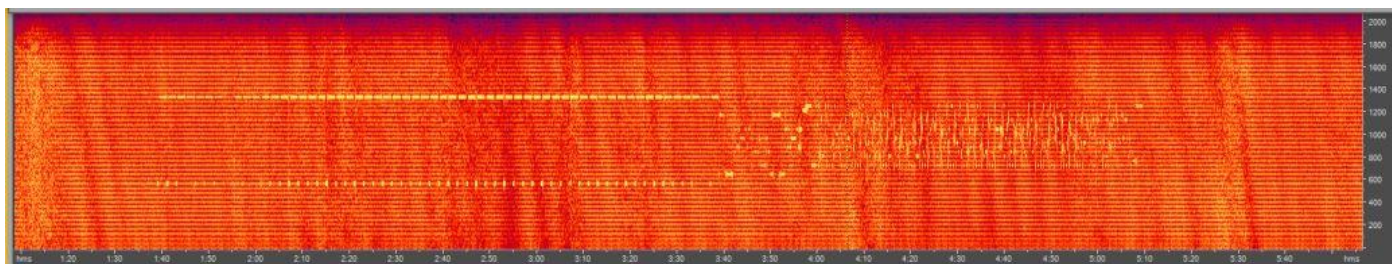
36033 94015 71290 35210 32901 50891 54135 50383 93857 18434
 14164 27042 11016 11528 49601 60850 90573 12572 19513 04686
 71860 81310 54550 85417 78473 53549 38431 92664 60764 29721
 46986 29782 74118 80070 53973 67879 22905 89644 84454 99942
 83448 39502 22306 05335 62167 47801 35266 95973 66334 55695
 84520 18386 07328 55405 86692 69412 73447 88669 84073 86934
 80343 80463 90250 60496

45784 91194 33677 73762 58633 82015 44063 38881 15915 42303
 69483 94514 73302 34063 93428 74380 13829 35777 69305 18959
 93653 27583 02052 67031 19249 35828 96372 70372 76218 69814
 62564 05559 51696 13894 04218 47556 88859 55335 09298 96407
 53677 44206 60778 91804 23481 75590 37637 98928 54272 22136
 66153

Courtesy PLdn

03/03	441 1 06631 00176 54659 ... 66153	1310z Weak, rest Fair
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08/03 441 1 06631 00176 54659 ... 66153 1350z Fair, rest weak, 1310z QSB3
 10/03 441 1 06631 00176 54659 ... 66153 1350z Fair, rest Strong



12151kHz 1350z 15/03/2023 QRM2

15/03 441 1 00177 00108 09080 ... 10612 Fair, 1350z QRM2 [see pic above], 1310z Unworkable

441 441 441 1 441 441 441 1 441 441 441 1

00177 00108 09080 15589 44877 52093 30600 55295 26407 45534
 65482 42444 90289 92681 69270 09953 80988 12073 50837 80969
 53687 04621 31740 93467 41192 43950 66057 09973 84146 30024
 48356 27056 39021 39134 66743 96370 09084 34986 61908 98249
 01576 34728 17696 30664 82056 58296 38599 36310 33224 73947
 31351 95510 56236 78411 19156 21148 25506 86999 25523 20719
 06151 03876 18510 10266

96588 09476 79830 31982 17516 57159 56764 03562 01207 75773
 53816 19422 73670 16381 95322 38251 90363 77465 49949 48633
 60983 97128 22210 03427 07569 59460 42852 92642 83189 32313
 88786 25371 54181 65318 39831 33942 03502 50982 33712 71328
 02399 98048 03298 49418 88804 04540 10612 *Courtesy PLdn*

17/03 441 1 00177 00108 09080 ... 10612 1310z Strong, rest Fair

22/03 441 000 06168 00001 00000 ... 35664 1310z Weak, rest Fair

24/03 441 000 09256 00001 00000 ... 32566 Weak, 1350z Unworkable

29/03 441 1 06749 00122 18376 ... 64232 Fair, QSB2

441 441 441 1 441 441 441 1 441 441 441 1

06749 00122 18376 77755 61703 04406 36471 51711 72247 61287
 72760 29234 14639 22162 17180 11847 01006 22981 34698 50454
 17616 39611 56762 65781 31230 50766 42843 13374 16424 10169
 09317 68588 64522 43446 23821 95548 96278 76150 42125 56872
 20199 70390 07001 37711 24243 81810 18872 60824 32334 47945
 03274 64405 40044 97055 93642 30113 34378 19708 59334 64820
 85813 42787 81578 12974

02670 67506 98001 41717 14520 68806 70194 18473 53254 98850
 57146 68081 93274 02690 70250 56870 72890 00809 36119 90192
 70374 77155 79112 89610 52299 00082 26047 32861 51059 41154
 53636 79758 27236 34482 65016 86876 35646 34842 50294 62705
 70529 69444 93350 02285 20521 76609 66802 30363 77612 65894
 68064 78971 73048 41754 13043 72166 66724 99620 91018 35586
 64232 *Courtesy PLdn*

April 2023

1210z 13368kHz 1230z 12168kHz 1250z 11168kHz

05/04 311 1 06749 00122 18376 ...64232 Weak, 1350z Unworkable

311 311 311 1 311 311 311 1 311 311 311 1

06749 00122 18376 77755 61703 04406 36471 51711 72247 61287
 72760 29234 14639 22162 17180 11847 01006 22981 34698 50454
 17616 39611 56762 65781 31230 50766 42843 13374 16424 10169
 09317 68588 64522 43446 23821 95548 96278 76150 42125 56872
 20199 70390 07001 37711 24243 81810 18872 60824 32334 47945
 03274 64405 40044 97055 93642 30113 34378 19708 59334 64820
 85813 42787 81578 12974

02670 67506 98001 41717 14520 68806 70194 18473 53254 98850
 57146 68081 93274 02690 70250 56870 72890 00809 36119 90192
 70374 77155 79112 89610 52299 00082 26047 32861 51059 41154
 53636 79758 27236 34482 65016 86876 35646 34842 50294 62705
 70529 69444 93350 02285 20521 76609 66802 30363 77612 65894
 68064 78971 73048 41754 13043 72166 66724 99620 91018 35586
 64232 *Courtesy PLdn*

07/04 311 1 06749 00122 18376 ...64232 1210z Fair, 1230z Weak, 1250z Unworkable

12/04 311 1 04024 00204 67873 ... 13620

1250z Unworkable, rest Weak

311 311 311 1 311 311 311 1 311 311 311 1

04024 00204 67873 99338 22155 57516 29661 23177 21434 12243
15332 67732 96080 60373 47130 48393 31885 19752 04798 17705
55965 87245 79338 23732 69727 11498 00801 08687 49458 20142
56830 29890 00604 65442 75013 24477 73284 06676 69042 33859
91122 71811 52531 96429 44593 70043 94490 56157 80864 91603
75542 32502 07575 36707 62779 83666 26788 76571 21112 37744
53086 48131 12744 67029

44421 37484 64125 98739 06374 73126 99794 22537 91228 70892
19747 43502 56104 34397 14041 35923 52278 48103 13285 51912
02533 36698 74022 64188 27439 12375 07879 05608 21653 01554
54014 18232 77218 34965 46580 41082 11301 19427 44223 34687
82233 01454 93319 04959 50289 82156 56711 56413 50716 84178
16484 36991 79602 06090 04526 25579 64053 52350 23726 70265
73781 18997 80825 56926

86204 97556 22973 70243 08926 08573 61395 80866 26674 62564
91945 24538 69032 64544 28107 05204 50158 14042 97129 06127
88252 60101 29163 01034 07982 12453 20711 03162 45370 11654
27757 99336 91513 02280 39090 49481 78841 69546 05020 13644
64012 69830 27217 96089 17142 09726 42403 10797 82724 65377
21998 10322 20227 99176 36436 47014 28013 97418 30164 41010
89015 41587 28564 06846

38518 25956 37671 40541 16984 85955 82771 14274 01748 10464
52335 23867 73543 39564 13620 *Courtesy PLdn*

14/04 311 1 04024 00204 67873 ... 13620

1200z Fair, rest Weak

19/04 311 1 04024 00204 67873 ... 13620

Weak QSB4

21/04 311 1 04024 00204 67873 ... 13620

1250z Very weak, rest Fair

26/04 311 1 03060 00188 43677 ... 45237

Weak QSB4

28/04 311 1 03060 00188 43677 ... 45237

1250z Weak QSB4, rest Fair

311 311 311 1 311 311 311 1 311 311 311 1

03060 00188 43677 19294 99526 78797 04377 70120 67877 05254
40073 46353 54196 73783 66389 77227 91112 70053 44714 49843
24403 41375 73100 10485 39873 44683 83870 64177 65129 53899
02771 48218 81487 41023 15995 35254 42224 14886 14354 35594
90737 88372 70040 93923 26919 67527 26248 96590 88666 35534
19318 74893 82958 86610 56737 94722 08602 43850 71747 52191
79099 62599 07182 51610

48870 17128 24228 81644 91023 51801 63499 79449 22534 71109
50397 77278 65413 69921 18849 10325 34024 93558 90163 64178
82879 63874 41158 00017 26389 81756 18168 91910 91428 33044
97698 35701 12920 52740 15476 91213 06265 35343 64936 06643
22732 98293 64256 55003 29545 66522 43458 44192 93099 14557
68322 59057 15247 19224 57815 17524 76639 15843 65112 98274
36552 06146 78659 08409

18077 12933 55404 97352 47661 27617 87642 12034 56182 29772
41103 05492 84781 50849 21439 10192 51082 22888 09822 58052
78960 31053 93289 95467 59176 97870 57047 53332 33646 14316
63223 51156 48358 72492 33338 52257 93877 77423 30296 52663
14349 17919 12844 61344 26792 23273 46022 21669 03879 00012
12672 41120 41879 75840 12371 20804 13107 69584 79581 66861
30068 49455 45237 *Courtesy PLdn*

XPA2 m

Sunday/Tuesday

March 2023

1200z 13384kHz 1220z 13984kHz 1240z 14984kHz

05/03 07419 00001 00000 ... 37660 Strong

07/03 08846 00201 72916 ... 33426 Strong

08846 00201 72916 28746 06861 90989 35153 32181 13026 54331
53784 12960 19497 28758 77030 05963 27543 54292 08417 19386
83632 01827 47815 64600 71582 83627 38190 86244 09230 65370
98726 77666 24142 82520 02607 99106 17751 00493 18432 46664
45624 92586 84842 03718 30903 57921 12754 19446 35507 25458
50824 86879 86888 81998 02831 30104 00695 55282 25590 63565
10456 02385 11415 02571 04012 28911 66206 27880 73926 52182
77847 55649 89394 69590 33329 20016 12140 97661 17471 20972
10177 47227 56016 62494 21885 58782 46494 76206 54980 07260
57249 51829 57646 27563 51282 77388 22137 91437 40507 40705
04823 52408 42786 14366 22740 31042 83075 68043 35006 69311
69114 02276 54498 46824 85385 40733 42931 86897 41376 11737
20963 37059 31410 10991 27371 50603 85795 58574 26103 50052
47881 67155 02433 11406 82595 97582 73673 60247 71348 86084
72468 92421 86933 38812 22210 28081 03871 33325 57759 92270
07498 46443 66165 31838 14912 78124 29441 93667 65584 10979
02546 13652 87905 98973 67108 77785 10299 39778 45564 24974
42317 29940 51127 98242 80080 77698 45630 75227 21157 82461
51308 15113 06417 15731 80309 14885 48205 66600 96740 74634
06316 47416 92165 36027 77480 91108 67068 38257 78166 30003
01020 43158 53913 33426 *Courtesy PLdn*

12/03 08846 00201 72916 ... 33426

1200 strong, rest Very strong

08846 00201 72916 28746 06861 90989 35153 32181 13026 54331 53784 12960 19497 28758 77030 05963 27543 54292 08417 19386 83632 01827 47815 64600 71582 83627 38190 86244 09230 65370 88726 77666 24142 82520 02607 99106 17751 00493 18432 46664 45624 92586 84842 03718 30903 57921 12754 19446 35507 25458 40824 86879 86888 81998 02831 30104 00695 55282 25590 63565 10456 02385 11415 02571 04012 28911 66206 27880 73926 52182 77847 55649 89394 69590 33329 20016 12140 97661 17471 20972 10177 47227 56016 62494 21885 58782 46494 76206 54980 07260 57249 51829 57646 27563 51282 77388 22137 91437 40507 40705 04823 52408 42786 14366 22740 31042 83075 68043 35006 69311 69114 02276 54498 46824 85385 40733 42931 86897 41376 11737 20963 37059 31410 10991 27371 50603 85795 58574 26103 50052 47881 67155 02433 11406 82595 97582 73673 60247 71348 86084 72468 92421 86933 38812 22210 28081 03871 33325 57759 92270 07498 46443 66165 31838 14912 78124 29441 93667 65584 10979 02546 13652 87905 98973 67108 77785 10299 39778 45564 24974 42317 29940 51127 98242 80080 77698 45630 75227 21157 82461 51308 15113 06417 15731 80309 14885 48205 66600 96740 74634 06316 47416 92165 36027 77480 91108 67068 38257 78166 30003 01020 43158 53913 33426

Courtesy PLdn

14/03 00494 00103 67158 ... 67442

Fair

00494 00103 67158 84659 99077 97363 54104 86739 78021 30730 16515 80743 29911 30509 19886 48700 11417 16711 85709 28267 98927 76248 42316 97585 85210 11814 02661 59933 01610 65186 78436 67088 05073 67291 76238 98713 89001 23785 89491 89946 35194 63421 23372 71235 57983 81051 79058 17976 49336 64430 35127 80120 49272 96559 51647 46561 38345 39387 45253 71030 83874 64560 80739 64199 40868 92690 29093 15426 57206 14044 22877 37163 91129 20559 78177 10420 19084 87219 71213 93812 86132 39928 83022 65779 11463 07664 46564 89449 43283 90855 35504 62832 60037 46049 23315 48416 36315 70681 20144 59791 41185 77767 26244 34589 13343 67442

Courtesy PLdn

19/03 00494 00103 67158 ... 67442

Strong

21/03 07859 00133 57689 ... 41564

Strong

07859 00133 57689 82856 34829 05830 65392 94809 91311 27372 78841 64497 72904 94300 16187 06346 35173 51319 26828 53662 72966 58828 39042 71486 55385 52594 92294 92704 46064 16779 84173 06629 92664 69384 07142 99381 75133 63493 63099 39378 94772 65496 87862 78734 21836 28682 49087 29169 89929 89787 12874 49140 39393 95210 53199 41560 91653 26543 52439 88437 96128 78821 49839 50972 52928 44022 50632 07533 97462 78991 39279 52782 69296 37410 66748 99900 75976 30365 84826 47469 52789 61616 92655 52849 52863 05304 01838 78391 25524 58958 28029 87377 88547 37113 61672 84186 63742 02688 81686 08544 71537 24001 95322 01032 06142 18864 43951 59204 45306 26128 32268 11441 99443 95279 11128 04245 97473 04599 87202 33177 22569 47626 71133 79070 64446 27466 81064 96779 22589 40197 73439 45536 68833 27534 39166 41564

Courtesy PLdn

26/03 07859 00133 57689 ... 41564

Strong

28/03 00499 00167 02250 ... 06052

Strong, QSB2

00499 00167 02250 71390 48004 80106 25482 58843 22257 81782 11861 65922 17314 04920 67977 87359 54465 93816 73251 71420 32932 16814 87474 28248 00515 76870 82769 73384 33061 09974 55277 67167 06663 31949 86984 88642 80428 76576 63076 20818 66225 31308 73946 99275 85896 71758 97607 31689 47032 86217 49164 97641 10758 17259 36344 12429 72230 94320 14580 67305 16820 07707 32328 72329 21297 90749 73840 97269 25940 44677 23412 05658 90265 68760 45551 09430 24403 53251 93091 16897 14978 71974 70912 39426 79620 99433 51076 55994 66989 90419 92028 42598 30686 57459 31817 92141 74960 05975 59858 76532 65344 05991 20840 75616 47939 32365 34197 40067 95871 03851 55341 45099 80291 27956 38943 54266 87916 71960 87830 82086 44034 63614 46774 76272 29434 96930 42458 48815 56128 67247 59624 57838 71691 51052 65064 12886 71364 73018 08522 68307 23500 19525 39468 61870 60134 99433 38590 06100 60413 08422 47914 55481 63444 79353 29480 76599 09790 59204 66298 20376 71771 12810 68504 84783 91938 08054 96607 56106 25090 06052

Courtesy PLdn

April 2023

1200z 14442kHz 1220z 15842kHz 1240z 16342kHz

02/04 00499 00167 02250 ... 06052

Strong

04/04 00257 00122 21797 ... 16013

Weak

09/04 00257 00122 21797 ... 16013

1200z Very strong, rest Strong

00257 00122 21797 33594 13057 62766 25008 17529 70758 93824 35678 70475 11908 65141 11047 91777 94684 45158 86115 60666 88964 58087 38908 07882 46949 38873 70436 83780 85399 23157 24418 22755 30673 39278 77796 30553 70520 79489 44555 05934 04180 89374 39988 79468 86451 91762 51809 12006 88412 90590 23940 07673 34702 26554 72285 32881 80536 40648 39529 41665 94884 99871 19108 10317 40491 84121 15760 57109 36496 70912 06070 61550 54268 27466 66892 27739 92908 41559 50649 82228 41621 69681 42111 67029 13056 57751 17974 38759 45699 27188 57326 64760 25698 16147 26275 33494 12398 99398 58668 58042 33512 49337 19382 29308 15253 65340 50428 55674 77595 63121 25368 21810 56345 29814 78534 75772 96184 92194 95874 25709 22991 39668 08286 91603 16013

Courtesy PLdn

11/04 00547 00198 97683 ... 72542

1200z Fair, rest Strong

00547 00198 97683 01683 42876 88796 06256 43694 46019 56028 97082 40200 82965 03044 97003 62487 73456 43035 67464 26545 26781 62200 88197 69596 03405 38056 23579 76388 38201 98530 83764 94364 32118 18107 87174 15615 79265 29826 63305 08807 60449 80284 22674 82133 73480 45534 05888 93304 93296 64998 83329 92590 14084 69456 73823 81430 48659 73041 95161 26773 44233 92963 04390 27720 73148 07036 54359 58976 56569 62037 81618 34404 77346 48865 90384 68866 19814 40916 92188 75658 30124 97269 75955 47314 70146 30181 97083 94050 88743 33386 00883 30387 00856 00679 20220 77565 83070 70826 08828 64435 63244 84320 71717 61862 65647 99757 78270 63080 82888 62208 80554 88543 29263 56798 63503 67674 15797 74956 17621 68280 60953 60556 28881 84871 66526 62631 58245 98654 45178 93587 96623 76656 77585 77461 66659 84374 48885 45088 56800 05660 80880 16788 45974 37227 00901 36849 63259 42585 03284 54931 35273 00584 52630 75388 73337 72426 85015 88643 94950 87729 72356 64547 52777 00307 63002 68308 20002 75687 59539 42345 84690 73879 35477 28776 54539 42590 13180 20290 86572 00840 80699 72477 47785 48739 43695 06868 30336 83101 84476 33247 00747 26468 68666 77700 52766 58350 76957 23042 03063 03533 72542

Courtesy PLdn

16/04 00547 00198 97683 ... 72542

Weak, 1200, 1220z QSB4; poor condx

18/04 06722 00001 00000 ... 35660

1200z Strong, rest Weak

23/04 02498 00001 00000 ... 37263

Weak

25/04 NOT MONITORED

30/04 00588 00142 73395 ... 44527

1240z Fair, rest Weak

00588 00142 73395 32759 21647 07280 44846 90334 50420 80388 66935 55694 87450 22629 38946 62599 69435 67028 21861 43121 32724 57485 23084 19533 93052 55318 11088 86070 71514 99892 22929 91563 64386 26619 46007 01610 84550 52301 20987 67529 91256 71574 27982 73392 27866 46801 30534 56040 66582 09774 66487 33530 32811 61065 66446 46507 17608 25831 20258 07495 32957 05299 06234 53143 78416 80441 65100 04187 73757 97584 89778 63679 67340 03252 70082 94135 96550 81443 36822 17593 68798 91887 63058 57927 90442 17006 79614 04747 33334 60867 40680 23888 38269 87226 69531 03942 84843 43810 02810 62457 38572 19463 58522 20223 29886 61379 60768 42728 99802 76954 05148 23499 68992 99386 67577 84071 75579 47685 77240 13174 59575 29603 69670 47946 19351 53550 39576 85959 69370 75578 72288 80408 82609 35740 11833 14447 03651 58679 28975 75910 10999 54017 55414 34885 44527

Courtesy PLdn

XPA2 p

Monday/Wednesday

March 2023

0800z 13931kHz 0820z 14831kHz 0840z 16131kHz

01/03 07618 00098 06230 ... 70253

Strong

07618 00098 06230 54644 38926 87255 24562 20726 84915 74684 69774 58961 23644 92469 15286 04428 67800 27557 31448 61964 27236 39265 97455 63695 50733 98108 05773 57460 56467 45547 90084 63007 58202 10722 29545 00579 62589 33812 98975 42727 98242 81902 42794 61974 60985 31482 35089 43324 02454 19510 51777 48383 35103 21514 22521 11905 55529 12955 67858 98965 82050 69691 35180 06870 97883 62487 83851 80829 05231 14578 10722 75912 91801 41965 83612 40510 66550 44395 66610 09853 25550 17342 90569 86462 94287 91828 93875 19779 63483 23646 42224 18999 72508 72484 99950 43517 07881 24922 61591 09738 70253

Courtesy PLdn

06/03 07618 00098 06230 ... 70253

0800z MISSED

0820z Fair QSB2, 0840z Strong

08/03 07618 00098 06230 ... 70253

Strong

13/03 00282 00112 23793 ... 21244

Strong

00282 00112 23793 04765 54614 89020 25265 25656 17283 81548 24844 44343 46719 93958 08683 96342 90038 44780 02979 44363 43138 81740 78126 53448 91448 70324 57357 61101 38355 96285 94531 34073 53248 26586 44981 01130 07036 94518 55066 47230 27561 61120 37405 58215 77604 02651 01201 76258 66527 95881 42243 04616 37587 71552 44422 55339 47403 34123 50582 01501 98741 83714 84686 78653 95800 39314 69028 48748 16979 05595 71901 77418 62218 26608 77515 11887 39395 37137 00261 74864 18015 77054 92549 18586 28384 67627 81672 59288 63088 02412 67862 78590 92645 55217 29788 77372 98127 52569 98515 39514 98394 47093 05382 00691 35760 21746 77385 91466 70013 03176 85627 41327 02824 70634 21244

Courtesy PLdn

15/03 00282 00112 23793 ... 21244

Strong

20/03	00282 00112 23793 ... 21244	Strong, 0840z Last grp oblit QRM5
22/03	00282 00112 23793 ... 21244	0840z Stromg, rest Weak
27/03	09805 00124 16273 ... 27710	Fair, 0820z NRH

09805 00124 16273 47766 36194 70982 15365 41148 09246 35930
48124 47697 16757 19937 33080 33502 09347 53768 19153 28540
17357 82153 57663 57492 45334 06854 14531 37068 80838 87688
89305 98119 13494 68580 74845 52344 47090 43653 27474 71186
98619 04407 95976 25270 55116 00197 75450 31873 40972 50726
52791 22660 31877 97177 02989 58749 28417 80980 03396 63962
34555 98987 52993 24233 22325 11888 28335 09404 63093 06053
21556 47324 87274 16984 54274 32789 52510 14169 16665 84440
27725 07169 58173 52447 51791 95364 70035 12115 36447 63271
95209 05150 57137 84332 46021 70086 01084 74857 30140 00348
88755 30397 10653 25178 4339979080 18013 54327 10551 36908
72954 05880 14710 65650 50566 64165 66439 64986 01947 44131
71315 60014 95754 47127 48788 27130 27710 *Courtesy PLdn*

29/03	09805 00124 16273 ... 27710	0800z Fair, rest strong
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April 2023

0700z	11409kHz	0720z	12209kHz	0740z	13409kHz
03/04	09805 00124 16273 ... 27710				Weak, 0700z QSB2
05/04	09805 00124 16273 ... 27710				0720z Fair, rest Unworkable
10/04	06308 00188 87304 ... 66762				0700z Weak, rest Strong

06308 00188 87304 03828 88806 46420 80754 86077 76078 02830
82808 22407 36255 80306 53785 08400 26220 38287 83270 02028
83030 05268 50803 80553 00060 75834 82002 07838 23225 80237
24536 85235 68400 38448 38376 52886 87775 30353 38808 80583
82647 05004 53328 28038 36587 50587 62032 88667 38084 46486
36778 23868 22705 50888 08377 04680 85862 06828 83205 03682
86084 38287 86280 32684 40368 53054 76000 68846 33867 35622
66330 38206 70682 00846 00865 88230 06808 63376 77805 83877
83422 75265 73734 78475 38024 38500 56546 88665 88084 23860
00320 77058 85030 53032 22806 25505 55437 38502 86852 05264
06873 83038 33270 30725 22476 78587 70580 75748 36356 02227
80388 58060 07444 33542 87005 38888 82805 85807 30880 50864
03270 30000 80835 82837 80047 62038 20875 38543 70082 84805
07746 87423 83823 87306 75645 64008 07666 86757 26683 00063
67040 83348 06533 35006 77880 88458 50528 62074 85850 73314
38778 80443 85555 30373 35303 84072 73906 40088 26048 42823
28736 28784 73808 73202 85574 50250 28380 53083 30007 30056
38080 70834 82008 78377 87585 70838 80800 73586 82440 40847
33830 33027 86237 68077 05758 08236 89553 55330 74660 30497
66762 *Courtesy PLdn*

12/04	06308 00088 87304 ... 66762	Weak, 0740z Unworkable, QRM3 QSB4
17/04	06308 00088 87304 ... 66762	0740z Strong, rest Weak
19/04	06308 00088 87304 ... 66762	0700z Unworkable, rest Weak
24/04	06902 00218 61069 ... nnnnn	Weak QSB4, 0700z Unworkable
26/04	05902 00218 61069 ... 17774	0740z Fair, rest Weak

XPA2 Wed/Fri

Wednesday/Friday

March 2023

1200z	14956kHz	1220z	16356kHz	1240z	17456kHz
01/03	00246 00160 84073 ... 55142				1200z MISSED, 1220z Fair, 1240z Strong

00246 00160 84073 93271 73649 14305 57082 86914 33753 13924
92581 50326 99593 89833 46137 96139 36068 78708 55451 90965
40681 56100 71254 49385 29618 22344 27197 22951 82898 14840
60917 05092 25968 49145 63347 05261 30722 90175 30924 72694
52251 81859 55261 10201 48040 16901 11698 20729 00422 84078
67673 71004 21644 61675 89750 32735 57032 60357 77960 59696
65473 72742 65556 86826 81872 49799 79416 19187 80894 76137
32547 30632 50802 76185 69180 08416 84110 89212 82107 31063
56173 55315 60954 63475 00217 20449 96480 69248 96383 54742
13114 94237 60105 77137 16610 66186 52996 91353 99141 09498
38963 43367 49286 34947 02606 54995 51998 01683 31288 12812
63833 12999 41943 38735 85570 95000 71508 52089 96149 66891
83120 76405 90867 43906 03910 52849 04193 67331 16395 47290
02810 04468 35404 60750 82702 49935 85419 51622 88631 66611
27099 37000 29284 26775 46941 08921 51216 55729 91596 08966
86215 73485 92225 98399 82434 35211 04355 95145 79613 66646
51385 67684 55142 *Courtesy PLdn*

03/03	00246 00160 84073 ... 55142	1200z Strong, rest Very strong
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08/03 05545 00204 63568 ... 37057

Strong

05545 00204 63568 39240 27324 39598 66579 15264 08321 41680 62010 85826 75235 99439 80314 73758 13830 25527 67960 78899 64382 16575 43996 83858 52959 84116 65741 43179 59601 14206 68022 32893 61234 48007 70561 45951 70417 56263 48290 08327 13913 20797 62989 73838 81195 60278 43650 40337 77165 58561 18922 26254 21375 71697 84567 00166 98365 92795 38176 60278 43225 68690 36204 30084 08078 55714 17707 67865 75893 60570 15872 30689 90313 01075 40879 61817 68000 28999 23847 18871 35398 98960 38904 33735 55519 72589 42184 25890 66643 84380 42955 88276 29466 34426 28140 27084 84937 24923 16292 43487 06922 75622 90343 24758 25839 51900 33500 47585 79598 35595 30816 10177 77308 58441 97589 28690 63205 90864 27878 10651 75852 55333 81473 87037 07396 04573 17913 41844 89337 92539 36954 14819 88941 03740 79566 46638 00474 03578 01042 24636 85167 28505 44728 05312 16230 03300 77621 96737 78662 59302 93054 62194 17880 60915 85936 11430 28708 19541 70973 61009 28689 63074 35451 36997 90032 40195 16626 78645 90210 40458 37615 54185 88603 45643 12982 95665 90488 15921 55903 76651 44898 93895 00925 46984 87478 03812 88456 92789 64593 13002 23187 61553 09076 38817 03154 74412 11447 54263 62938 19957 05269 96402 91772 51628 63609 25101 37057 Courtesy PLdn

10/03 05545 00204 63568 ... 37057

Strong

15/03 00173 00082 58578 ... 14113

1240z Strong, rest Fair

00173 00082 58578 45447 66424 30516 03091 82023 08303 01857 90135 12400 89586 09698 52853 29627 62699 06208 54262 73761 34091 47817 41680 79892 06661 57577 46557 02655 55829 20397 90464 30411 16082 59964 47045 57040 45160 70821 25370 81759 97808 24264 03367 83344 16792 51711 75543 21702 14953 76626 00362 93616 44945 18256 33730 07821 61715 35098 22962 18360 69234 50939 09844 74360 45795 72122 95163 77175 79628 52353 46759 39966 14624 67212 26862 45767 64518 88840 21819 22133 97037 58627 52576 97684 14113 Courtesy PLdn

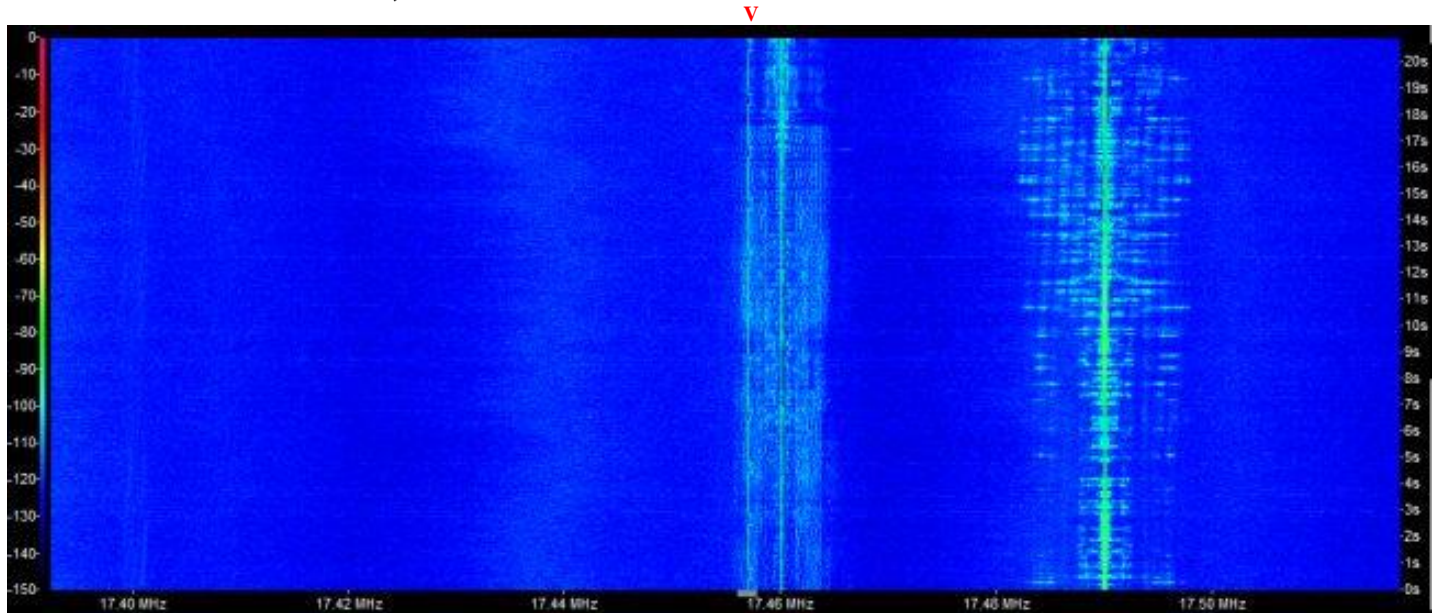
17/03 00173 00082 58578 ... 14113

1200z Strong, rest Very strong

22/03 07421 00112 25068 ... 34221

1220z Strong, rest Fair; 1240z Splatter fm BC Stn 17460kHz

07421 00112 25068 49209 59703 68459 26374 48313 26086 65052 82774 34089 65871 63783 55487 78518 00052 19409 41720 69029 23202 29430 26442 19590 41945 10493 86661 34126 44590 57769 95357 15404 27172 12133 41998 08016 23167 04471 45705 33288 40258 57856 80276 26686 33210 22319 63204 52457 06758 97129 22079 11541 24863 93880 93123 43070 40630 54419 17665 34790 51305 79062 27324 37383 98389 27117 88012 75268 85509 41910 15279 85703 37019 80098 35497 06802 81749 97133 88942 78946 19806 19991 78746 67532 79352 83437 36453 39609 68534 99804 77419 67186 08559 79605 34724 21184 71685 89492 18152 56249 95841 63229 92311 80654 81211 52810 31044 50830 51788 93528 57141 17447 93942 49540 34221 Courtesy PLdn



17456kHz 1240z 22/03/2023 Splatter as mentioned above

24/03 07421 00112 25068 ... 34221

Weak

24/03 07421 00112 25068 ... 34221

1200z Weak, rest NRH [K indices 6]

29/03 00217 00132 89511 ... 06675

1200z Fair, rest Strong

00217 00132 89511 09943 62792 64658 04618 22344 42498 64434
77711 78126 69929 04336 39440 85514 30655 28308 28275 45119
71773 87150 63795 21755 85055 28520 29504 11513 44902 62295
39787 34919 31276 81151 14240 43901 53075 72243 88925 81568
86475 16398 46951 66499 30629 16433 91201 17930 90832 30340
98483 58263 17314 52951 20179 18053 43901 62301 71612 46814
56397 49177 22727 14834 34762 38126 39471 27282 93739 32209
20283 75794 47206 71572 84260 41971 55869 01264 08252 14037
54137 79102 10416 05165 98133 27521 75091 99210 75840 25359
52940 59713 38931 16006 68571 97705 26474 96863 74203 74485
67769 73665 39038 35333 53586 06111 96690 29840 74491 04985
34924 01566 15498 98237 76830 93928 81841 26729 45295 37830
09879 80790 33633 39371 61616 54423 58852 29291 16495 78480
91970 32473 97306 51550 06675
Courtesy PLdn

31/03 00217 00132 89511 ... 06675

1240z Very strong, rest Strong

Wed/Fri

April 2023

Freqs Unknown

05/04 Searched, no trace 1200z
07/04 Searched, no trace 1200/1300z
12/04 Searched, no trace 1200/2100z

NOT HEARD SINCE

XPA2 others

From Ary:

15956 03-03-2023 0900 XPA2 MFSK-16/20bd
17456 03-03-2023 0920 XPA2 MFSK-16/20bd
18656 03-03-2023 0940 XPA2 MFSK-16/20bd

02497 00211 36912 69973 83315 67517 18588 79023 10502 50510
52676 16776 33887 78228 72148 23088 44381 72461 36772 76299
83334 23046 36613 67225 64174 78330 14397 47688 05280 98174
03373 82914 47050 13921 51581 31490 61812 76937 24917 37051
70107 44479 24962 44069 41895 30486 42575 05019 59052 62581
55295 60149 29443 45837 37829 62938 46478 16914 92086 30060
82663 67642 46629 31526 08874 53636 56844 55688 71665 40838
56886 11891 23807 47200 96047 56737 65371 26401 39416 87005
55709 32862 60151 40050 63782 57838 73254 53096 15676 14847
62586 65761 41902 95615 73748 34991 51339 47568 90525 20133
02459 42594 29074 77334 19619 71160 45767 46890 70635 78501
70376 74766 33589 60285 84898 06401 33937 64082 90973 68133
71027 86628 41526 31676 40164 54632 02942 51190 48602 23339
62221 40681 69180 32782 23427 62409 49329 91610 23131 10372
99851 77829 93378 07703 57445 37888 87847 89605 25015 59806
07043 83440 18382 57972 15849 59741 51694 55932 69019 08536
46320 44275 42070 32410 77037 54535 95759 97800 51059 82980
23659 26977 88665 64303 19018 63071 53817 53491 72792 40137
01055 39661 39586 18862 19756 33561 92447 35761 35232 12577
03628 06926 54364 82050 18357 34122 01225 12822 89955 23288
90883 07552 26039 75777 34407 59323 90273 52049 47933 25845
93127 01168 96306 53113
Courtesy Ary

From H-FD

1B XPA2

1B XPA2

Wed 01.03.2023 1100Z 15861 msg
Wed 01.03.2023 1120Z 14431 msg
Wed 01.03.2023 1140Z 13431 msg

Sat 01.04.2023 1500Z 15881 msg
Sat 01.04.2023 1520Z 14481 msg
Sat 01.04.2023 1540Z 13381 msg

Wed 01.03.2023 1200Z 14956 msg
Wed 01.03.2023 1220Z 16356 msg
Wed 01.03.2023 1240Z 17456 msg

Mon 03.04.2023 0910Z 18038 msg
Mon 03.04.2023 0930Z 17474 msg
Mon 03.04.2023 0950Z 16286 msg

Thu 02.03.2023 0600Z 11157 msg
Thu 02.03.2023 0620Z 12157 msg
Thu 02.03.2023 0640Z 13557 msg

Tue 04.04.2023 0500Z 10249 msg
Tue 04.04.2023 0520Z 11449 msg
Tue 04.04.2023 0540Z 12149 msg

Thu 02.03.2023 0910Z 16261 msg
Thu 02.03.2023 0930Z 15961 msg
Thu 02.03.2023 0950Z 14861 msg

Tue 04.04.2023 1600Z 15819 msg
Tue 04.04.2023 1620Z 14919 msg
Tue 04.04.2023 1640Z 13919 msg

Fri 03.03.2023 0900Z 15956 msg
Fri 03.03.2023 0920Z 17456 msg
Fri 03.03.2023 0940Z 18656 msg

Thu 06.04.2023 0910Z 15859 msg
Thu 06.04.2023 0930Z 14659 msg
Thu 06.04.2023 0950Z 13459 msg

Fri 03.03.2023 1100Z 14639 msg
Fri 03.03.2023 1120Z 13539 msg
Fri 03.03.2023 1140Z 12139 msg

Thu 06.04.2023 1100Z 17426 msg
Thu 06.04.2023 1120Z 16326 msg
Thu 06.04.2023 1140Z 14926 msg

Sat 04.03.2023 1600Z 12163 msg
Sat 04.03.2023 1620Z 10863 msg
Sat 04.03.2023 1640Z 9363 msg

Fri 07.04.2023 1100Z 16341 msg
Fri 07.04.2023 1120Z 14841 msg
Fri 07.04.2023 1140Z 13941 msg

Wed 22.03.2023 0910Z 18333 msg
Wed 22.03.2023 0930Z 16345 msg
Wed 22.03.2023 0950Z 14838 msg

Thu 23.03.2023 1600Z 13994 msg
Thu 23.03.2023 1620Z 13494 msg
Thu 23.03.2023 1640Z 12194 msg

19181 21-03-2023 1010 XPA2 MFSK-16/20Bd
17441 21-03-2023 1020 XPA2 MFSK-16/20Bd
16259 21-03-2023 1030 XPA2 MFSK-16/20Bd
15834 21-03-2023 1040 XPA2 MFSK-16/20Bd
14574 21-03-2023 1050 XPA2 MFSK-16/20Bd
00708 00283 59416 65685 62847 59679 72872 99711 79188 05292
52046 71738 63418 31697 77468 61956 07753 51314 71334 45995
98215 78360 61167 95883 17549 54023 11007 24505 78717 69665
96163 12729 37128 51194 50835 39472 57474 40475 06201 07422
48710 87809 28094 53384 47334 87815 65147 70275 62373 25265
63587 74471 19643 76617 50637 23691 24258 29360 25454 75846
69080 57205 48568 67161 72914 96090 74225 34342 56316 30877
94228 39941 96307 96205 24635 19851 87310 32931 34933 83346
77725 57977 41322 13194 67891 75297 76483 09154 52266 21611
51390 09808 05999 87591 12658 45229 68081 52483 11074 93267
46709 35705 46512 14184 63659 01819 12554 91098 94328 45842
42421 19108 16614 21072 04194 10364 42484 98333 09906 38186
34121 00480 15563 82775 37732 05131 28501 01164 83532 44367
00422 57701 58177 20543 71026 92417 61550 23375 24159 02759
49820 99152 23525 32664 96790 39535 74823 62241 31742 98905
76109 71917 93895 84298 00141 79361 40588 13825 53171 93794
45014 74691 87202 98913 46933 68332 41426 80330 66816 71041
03659 85687 81367 73943 95517 77875 58811 05827 33561 53239
32611 58482 06922 02157 24760 69991 35572 31706 10007 64331
32657 95005 58568 51109 84195 23694 16588 08002 71740 35421
43242 91794 58164 82687 61071 76682 69479 84168 91057 90191
08645 32525 24978 53366 40998 51492 65662 82026 58916 41271
56536 98760 27508 78250 33100 61823 38776 90392 95323 83929
68778 15430 80426 40739 64320 70962 21637 40995 45984 91059
75632 15460 16718 63052 30874 15481 69374 75215 85284 77708
50535 77881 51654 12070 00893 77937 37496 54927 97400 79732
47097 41507 97417 86688 72700 26895 80602 57411 38948 22321
12945 19084 83659 91482 01465 93328 03574 50150 56663 01458
18401 97296 86804 47903 80876 63546
Courtesy Ary

16293 21-03-2023 1200 XPA2 MFSK-16/20bd
15872 21-03-2023 1210 XPA2 MFSK-16/20bd
14754 21-03-2023 1220 XPA2 MFSK-16/20bd
13392 21-03-2023 1230 XPA2 MFSK-16/20bd
11439 21-03-2023 1240 XPA2 MFSK-16/20bd
10358 21-03-2023 1250 XPA2 MFSK-16/20bd
00514 00273 67283 18375 15121 13957 95240 82237 27758 46035
83154 59652 07284 15785 86902 47647 52599 54705 86606 54807
98277 13020 72287 71399 67737 20936 99667 60727 13497 54839
41801 11904 14750 85500 73017 22751 71642 80656 50776 76999
98832 00738 93387 98321 79044 66350 63862 83322 83277 17806
92671 98385 37231 55768 65103 47373 98281 36052 09468 01951
59220 31537 25646 54328 85238 60512 37757 96077 11780 42093
67772 07834 36303 48077 93546 78433 30586 50036 17733 47645
61224 31204 23500 31548 47706 16211 01977 17342 37994 72739
31161 84262 79093 13728 68124 67768 99827 99368 74715 46063
34452 50914 07672 80814 10131 11960 07134 54392 80228 98996
38812 32031 40214 35327 37995 08851 31096 18901 23987 77085
35613 68961 54527 20242 46214 97117 37007 84860 38396 88704
75560 72573 87888 73549 71638 53246 19069 81490 59132 60419
42316 58175 40111 86299 59533 80212 58051 96993 99746 58013
98513 56978 55040 59592 27350 52178 00182 73826 26108 39340
52090 25017 25297 54112 20320 55267 59662 79280 22743 64133
88118 49795 72331 38569 52310 93993 03838 77588 81332 99320
78537 65008 19854 34954 63781 39981 09685 18552 17406 83789
49873 41724 75298 22992 48423 98712 01186 00951 01314 54524
63764 65534 64504 64327 13481 35388 42575 63440 44505 55368
01342 28941 02750 39847 20912 77436 72697 29043 74929 26901
67886 02115 54683 86887 38410 80620 07319 03836 07897 37190
68137 73787 95814 70493 58416 50436 09614 16031 65957 48740
23265 83961 78417 09773 19176 98941 72024 77056 86413 80786
51918 22495 94554 48179 28105 55938 90075 53941 42106 31969
08084 79963 62116 93799 18754 96141 36247 09137 53204 21937
04977 11434 08559 09735 91313 71307 *Courtesy Ary*

15874 21-03-2023 1300 XPA2 MFSK-16/20bd
14383 21-03-2023 1310 XPA2 MFSK-16/20bd
13441 21-03-2023 1320 XPA2 MFSK-16/20bd
12158 21-03-2023 1330 XPA2 MFSK-16/20bd
11544 21-03-2023 1340 XPA2 MFSK-16/20bd
10394 21-03-2023 1350 XPA2 MFSK-16/20bd
00474 00253 33453 99721 03126 30043 22546 55510 55543 60435
27285 01256 09648 08097 43515 58699 25681 49685 32050 69062
80551 92130 15354 42724 11134 12009 57061 10072 28273 88416
31711 68119 61044 44742 31902 38395 28945 40845 28986 08839
31082 12797 75256 71580 46289 42141 50092 18013 13877 76418
82925 78197 90282 74235 90358 17511 88962 30744 26134 10050
24168 78434 93079 11558 66882 29917 07008 37274 46395 96442
94463 66246 88363 13986 48814 02822 54587 53362 74816 53753
67688 16213 37910 32488 79258 99658 65295 88796 80239 94612
28875 75099 10737 75051 55529 77959 42535 76438 27804 83852
44096 73688 06504 94479 10779 77580 38335 02568 40648 62755
38160 37308 07774 13153 69794 13292 59936 57621 38577 72996
20228 40129 04473 08409 46930 83017 84229 46751 45421 84736
87801 61810 10041 51179 40994 92621 35648 15213 27540 45915
73032 87951 34606 53569 09937 65480 42563 95220 36790 71475
09315 84666 23047 09967 00356 31939 50639 49315 58557 95220
71705 06841 64370 16752 15811 14776 89731 33689 81999 05845
38798 22683 58073 67057 80854 96911 56213 91749 06743 90152
35277 39159 53477 86943 49566 22414 95387 03440 00154 71964
31627 39614 05919 90507 51443 47028 03760 79113 17399 50054
75999 26193 58423 77211 98466 77447 37571 53878 17287 23162
78934 80322 41619 83708 39520 26683 46829 58123 40544 90089
96089 82622 24487 73414 91473 23081 15794 76020 32990 06676
56940 71246 51711 66449 13200 72563 66325 56396 63565 14774
31275 24832 56519 87556 02573 77559 24729 44663 08060 07466
39214 06437 48340 18315 41825 21524 *Courtesy Ary*

13887 21-03-2023 1400 XPA2 MFSK-16/20Bd
13372 21-03-2023 1410 XPA2 MFSK-16/20Bd
12187 21-03-2023 1420 XPA2 MFSK-16/20Bd
11021 21-03-2023 1430 XPA2 MFSK-16/20Bd
10237 21-03-2023 1440 XPA2 MFSK-16/20Bd
9307 21-03-2023 1450 XPA2 MFSK-16/20Bd
00724 00284 95793 65368 31239 57820 60843 78942 02320 14490
03260 56596 32820 97365 75937 07028 03820 27138 03979 83011
30842 44989 76215 94627 26974 46149 76815 05305 88241 40819
47849 71097 82491 07165 30569 33560 38944 98427 95437 54320
69165 41145 35493 03942 23986 85294 90263 46390 76063 31497
14807 30297 89296 33758 39044 53243 71222 41180 33411 84090
93803 23462 97850 76071 11955 05825 13333 32280 17560 65814
13389 74352 65100 64416 54160 36258 57774 89446 98653 65463
11649 71675 11867 97462 69957 68524 82617 40287 63795 80984
81836 21072 95337 84693 85595 32008 58786 63245 20458 09326
33045 36983 91097 08570 52241 80914 48845 28222 04415 19587
23610 11537 26838 03535 25349 07089 84132 02634 02949 36025
83234 70110 30638 75408 76294 05846 46831 42795 00430 05562
82037 11383 11756 61324 58458 61984 50227 16469 39854 83964
82227 07450 01448 09474 97720 59919 32246 27057 42959 14463
99124 04911 08257 89085 39990 78139 04280 40995 87836 59380
24500 09126 23621 65443 79137 50524 84226 68180 48732 41620
94853 33234 94888 70355 74638 91702 43324 35793 35830 09955
48073 57563 15200 60634 22311 15338 92258 62688 50162 83834
92502 15852 04173 82714 33758 11693 87989 77127 04168 18323
55691 64921 98913 35386 10543 82177 28458 20062 27907 24934
65562 49262 43258 14330 24654 31470 42721 73723 38448 84425
80622 18929 35558 16040 86107 40266 86211 36509 93539 72856
24017 29547 16250 62335 50041 50719 21603 46149 30128 31922
58401 14502 11445 99226 01941 59768 30584 37581 91117 15678
38762 39096 27918 16602 24306 90769 93974 52850 37629 21936
59556 95793 31397 97263 88098 57104 71404 97305 05827 24750
49207 69671 13655 16248 24113 29715 10609 88327 91693 68265
51377 08174 71410 17567 22968 07176 75527 *Courtesy Ary*

Other XPA2 Msgs sent through March and April available via Group site

1B XPB1

Mon/Sat

March 2023

18253kHz 1100z	04/03	Fair	2m15s		PLdn	SAT
17453kHz 1110z	04/03	Fair	2m15s	QRM3	PLdn	SAT
15953kHz 1120z	04/03	Fair	2m15s		PLdn	SAT
14953kHz 1130z	04/03	Unworkable		QRM5	PLdn	SAT
14353kHz 1140z	04/03	Fair	2m15s	QRM3	PLdn	SAT
13553kHz 1150z	04/03	Fair	2m15s		PLdn	SAT
18253kHz 1100z	06/03	Strong	4m28s		PLdn	MON
17453kHz 1110z	06/03	Fair	4m28s		PLdn	MON
15953kHz 1120z	06/03	Fair	4m28s		PLdn	MON
14953kHz 1130z	06/03	Fair	4m28s		PLdn	MON
14353kHz 1140z	06/03	Fair	4m28s		PLdn	MON
13553kHz 1150z	06/03	Fair	4m28s		PLdn	MON
18253kHz 1100z	11/03	Strong	4m28s		PLdn	SAT
17453kHz 1110z	11/03	Strong	4m28s		PLdn	SAT
15953kHz 1120z	11/03	Weak	4m28s		PLdn	SAT
14953kHz 1130z	11/03	Weak	4m28s		PLdn	SAT
14353kHz 1140z	11/03	Weak	4m28s		PLdn	SAT
13553kHz 1150z	11/03	Fair	4m28s		PLdn	SAT
18253kHz 1100z	13/03	Fair	2m15s		PLdn	MON
17453kHz 1110z	13/03	Fair	2m15s		PLdn	MON
15953kHz 1120z	13/03	Fair	2m15s		PLdn	MON
14953kHz 1130z	13/03	Weak	2m15s		PLdn	MON
14353kHz 1140z	13/03	Weak	2m15s		PLdn	MON
13553kHz 1150z	13/03	Fair	2m15s		PLdn	MON
18253kHz 1100z	18/03	Fair	2m15s		PLdn	SAT
17453kHz 1110z	18/03	Fair	2m15s		PLdn	SAT
15953kHz 1120z	18/03	Fair	2m15s		PLdn	SAT
14953kHz 1130z	18/03	Weak	2m15s		PLdn	SAT
14353kHz 1140z	18/03	V.weak	2m15s		PLdn	SAT
13553kHz 1150z	18/03	Weak	2m15s		PLdn	SAT
18253kHz 1100z	20/03	Fair	2m15s		PLdn	MON
17453kHz 1110z	20/03	Weak	2m15s		PLdn	MON
15953kHz 1120z	20/03	Fair	2m15s		PLdn	MON
14953kHz 1130z	20/03	Weak	2m15s		PLdn	MON
14353kHz 1140z	20/03	Weak	2m15s		PLdn	MON
13553kHz 1150z	20/03	Weak	2m15s		PLdn	MON
18253kHz 1100z	25/03	NRH			PLdn	SAT
17453kHz 1110z	25/03	Weak	2m15s		PLdn	SAT
15953kHz 1120z	25/03	Weak	2m15s		PLdn	SAT
14953kHz 1130z	25/03	NRH			PLdn	SAT
14353kHz 1140z	25/03	NRH			PLdn	SAT
13553kHz 1150z	25/03	Weak	2m15s		PLdn	SAT
18253kHz 1100z	27/03	Weak	4m28s		PLdn	MON
17453kHz 1110z	27/03	Weak	4m28s		PLdn	MON
15953kHz 1120z	27/03	Fair	4m28s		PLdn	MON
14953kHz 1130z	27/03	Weak	4m28s		PLdn	MON
14353kHz 1140z	27/03	Weak	4m28s		PLdn	MON
13553kHz 1150z	27/03	Weak	4m28s		PLdn	MON

April 2023

17474kHz 1200z	01/04	Weak	4m28s		PLdn	SAT
16274kHz 1210z	01/04	NRH			PLdn	SAT
15974kHz 1220z	01/04	Weak	4m28s		PLdn	SAT
14974kHz 1230z	01/04	Weak	4m28s		PLdn	SAT
14374kHz 1240z	01/04	Fair	4m28s		PLdn	SAT
13874kHz 1250z	01/04	Fair	4m28s		PLdn	SAT
17474kHz 1200z	03/04		BCQRM5		PLdn	MON
16274kHz 1210z	03/04	Weak	2m15s		PLdn	MON
15974kHz 1220z	03/04	Fair	2m15s		PLdn	MON
14974kHz 1230z	03/04	Weak	2m15s		PLdn	MON
14374kHz 1240z	03/04	Weak	2m15s		PLdn	MON
13874kHz 1250z	03/04	Weak	2m15s		PLdn	MON

17474kHz	1200z	08/04	Fair	2m15s		PLdn	SAT
16274kHz	1210z	08/04	Fair	2m15s		PLdn	SAT
15974kHz	1220z	08/04	Fair	2m15s		PLdn	SAT
14974kHz	1230z	08/04	Weak	2m15s		PLdn	SAT
14374kHz	1240z	08/04	Fair	2m15s		PLdn	SAT
13874kHz	1250z	08/04	Fair	2m15s		PLdn	SAT
17474kHz	1200z	10/04	Weak	1m40s	BCQRM3	PLdn	MON
16274kHz	1210z	10/04	Weak	1m40s		PLdn	MON
15974kHz	1220z	10/04	Weak	1m40s		PLdn	MON
14974kHz	1230z	10/04	Weak	1m40s		PLdn	MON
14374kHz	1240z	10/04	Weak	1m40s		PLdn	MON
13874kHz	1250z	10/04	Weak	1m40s		PLdn	MON
17474kHz	1200z	15/04	Fair	1m40s		PLdn	SAT
16274kHz	1210z	15/04	Fair	1m40s		PLdn	SAT
15974kHz	1220z	15/04	Fair	1m40s		PLdn	SAT
14974kHz	1230z	15/04	Weak	1m40s		PLdn	SAT
14374kHz	1240z	15/04	Weak	1m40s		PLdn	SAT
13874kHz	1250z	15/04	Weak	1m40s		PLdn	SAT
17474kHz	1200z	17/04	Weak	4m28s		PLdn	MON
16274kHz	1210z	17/04	Weak	4m28s		PLdn	MON
15974kHz	1220z	17/04	Weak	4m28s		PLdn	MON
14974kHz	1230z	17/04	Strong	4m28s		PLdn	MON
14374kHz	1240z	17/04	Strong	4m28s		PLdn	MON
13874kHz	1250z	17/04	Fair	4m28s		PLdn	MON
17474kHz	1200z	22/04	Weak	4m28s		PLdn	SAT
16274kHz	1210z	22/04	Weak	4m28s		PLdn	SAT
15974kHz	1220z	22/04	Weak	4m28s		PLdn	SAT
14974kHz	1230z	22/04	Fair	4m28s		PLdn	SAT
14374kHz	1240z	22/04	Strong	4m28s		PLdn	SAT
13874kHz	1250z	22/04	Strong	4m28s		PLdn	SAT
17474kHz	1200z	24/04	NRH			PLdn	MON
16274kHz	1210z	24/04	NRH			PLdn	MON
15974kHz	1220z	24/04	NRH			PLdn	MON
14974kHz	1230z	24/04	Unworkable			PLdn	MON
14374kHz	1240z	24/04	Unworkable			PLdn	MON
13874kHz	1250z	24/04	NRH			PLdn	MON
17474kHz	1200z	29/04	Fair	2m15s		PLdn	SAT
16274kHz	1210z	29/04	Weak	2m15s		PLdn	SAT
15974kHz	1220z	29/04	Weak	2m15s		PLdn	SAT
14974kHz	1230z	29/04	NRH			PLdn	SAT
14374kHz	1240z	29/04	Weak	2m15s		PLdn	SAT
13874kHz	1250z	29/04	Fair	2m15s		PLdn	SAT

Wed/Sat

[Wednesday schedule not monitored until April]

March 2023

14621kHz	1200z	04/03	Fair	4m28s		PLdn	SAT
13921kHz	1210z	04/03	Strong	4m28s		PLdn	SAT
13421kHz	1220z	04/03	Strong	4m28s		PLdn	SAT
12121kHz	1230z	04/03	Fair	4m28s		PLdn	SAT
11121kHz	1240z	04/03	Weak	4m28s		PLdn	SAT
10421kHz	1250z	04/03	Weak	4m28s		PLdn	SAT
14621kHz	1200z	11/03	Weak	4m28s		PLdn	SAT
13921kHz	1210z	11/03	Strong	4m28s		PLdn	SAT
13421kHz	1220z	11/03	Strong	4m28s		PLdn	SAT
12121kHz	1230z	11/03	Fair	4m28s		PLdn	SAT
11121kHz	1240z	11/03	Weak	4m28s		PLdn	SAT
10421kHz	1250z	11/03	Weak	4m28s		PLdn	SAT
14621kHz	1200z	18/03	Strong	4m28s		PLdn	SAT
13921kHz	1210z	18/03	Fair	4m28s		PLdn	SAT
13421kHz	1220z	18/03	Fair	4m28s		PLdn	SAT
12121kHz	1230z	18/03	Weak	4m28s		PLdn	SAT
11121kHz	1240z	18/03	Weak	4m28s		PLdn	SAT
10421kHz	1250z	18/03	Weak	4m28s		PLdn	SAT
14621kHz	1200z	25/03	Weak	4m28s		PLdn	SAT
13921kHz	1210z	25/03	Weak	4m28s		PLdn	SAT
13421kHz	1220z	25/03	Weak	4m28s		PLdn	SAT
12121kHz	1230z	25/03	Weak	4m28s		PLdn	SAT
11121kHz	1240z	25/03	Weak	4m28s		PLdn	SAT
10421kHz	1250z	25/03	Weak	4m28s		PLdn	SAT

April 2023

13562kHz	1100z	01/04	V.strong	4m28s	PLdn	SAT
12162kHz	1110z	01/04	Strong	4m28s	PLdn	SAT
11562kHz	1120z	01/04	Fair	4m28s	PLdn	SAT
11162kHz	1130z	01/04	Weak	4m28s	PLdn	SAT
10562kHz	1140z	01/04	Weak	4m28s	PLdn	SAT
10262kHz	1150z	01/04	NRH		PLdn	SAT
13562kHz	1100z	05/04	Strong	4m28s	KW	WED
12162kHz	1110z	05/04	Strong	4m28s	KW	WED
11562kHz	1120z	05/04	Weak	4m28s	KW	WED
11162kHz	1130z	05/04	Weak	4m28s	KW	WED
10562kHz	1140z	05/04		QRM5	KW	WED
10262kHz	1150z	05/04		QRM5	KW	WED
13562kHz	1100z	08/04	Fair	4m28s	PLdn	SAT
12162kHz	1110z	08/04	Fair	4m28s	PLdn	SAT
11562kHz	1120z	08/04	Weak	4m28s	PLdn	SAT
11162kHz	1130z	08/04	Weak	4m28s	PLdn	SAT
10562kHz	1140z	08/04		QRM5	PLdn	SAT
10262kHz	1150z	08/04		QRM5	PLdn	SAT
13562kHz	1100z	12/04	Fair	4m28s	PLdn	WED
12162kHz	1110z	12/04	Fair	4m28s	PLdn	WED
11562kHz	1120z	12/04	Weak	4m28s	PLdn	WED
11162kHz	1130z	12/04	Weak	4m28s	PLdn	WED
10562kHz	1140z	12/04		QRM5	PLdn	WED
10262kHz	1150z	12/04		Unworkable	PLdn	WED
13562kHz	1100z	15/04	Fair	2m45s	PLdn	SAT
12162kHz	1110z	15/04	Fair	2m45s	PLdn	SAT
11562kHz	1120z	15/04	Weak	2m45s	PLdn	SAT
11162kHz	1130z	15/04	Weak	2m45s	PLdn	SAT
10562kHz	1140z	15/04	Weak	2m45s QRM3	PLdn	SAT
10262kHz	1150z	15/04	Weak	2m45s QRM3	PLdn	SAT
13562kHz	1100z	22/04	Strong	3m07s	PLdn	SAT
12162kHz	1110z	22/04	Strong	3m07s	PLdn	SAT
11562kHz	1120z	22/04	Weak	3m07s	PLdn	SAT
11162kHz	1130z	22/04	Weak	3m07s	PLdn	SAT
10562kHz	1140z	22/04		QRM5	PLdn	SAT
10262kHz	1150z	22/04	NRH		PLdn	SAT
13562kHz	1100z	26/04	Weak	3m06s	PLdn	WED
12162kHz	1110z	26/04	Weak	3m06s	PLdn	WED
11562kHz	1120z	26/04	Weak	3m06s	PLdn	WED
11162kHz	1130z	26/04	Weak	3m06s	PLdn	WED
10562kHz	1140z	26/04	Weak	3m06s	PLdn	WED
10262kHz	1150z	26/04		QRM5	PLdn	WED
13562kHz	1100z	29/04	Weak	3m07s	PLdn	SAT
12162kHz	1110z	29/04	Fair	3m07s	PLdn	SAT
11562kHz	1120z	29/04	Fair	3m07s	PLdn	SAT
11162kHz	1130z	29/04	Weak	3m07s	PLdn	SAT
10562kHz	1140z	29/04	Weak	3m07s QRM3	PLdn	SAT
10262kHz	1150z	29/04	Weak	3m07s	PLdn	SAT

Other XPB1 schedules:

Courtesy of Gert & Ary:

20072 03-03-2023 1300 XPB1 MFSK-16 [FRIDAY]
 19572 03-03-2023 1310 XPB1 MFSK-16
 18372 03-03-2023 1320 XPB1 MFSK-16
 17472 03-03-2023 1330 XPB1 MFSK-16
 16272 03-03-2023 1340 XPB1 MFSK-16
 14972 03-03-2023 1350 XPB1 MFSK-16

Courtesy H-FD:

1B XPB1

Wed 01.03.2023 1200Z 14621 MFSK-16 4:29
 Wed 01.03.2023 1210Z 13921 MFSK-16
 Wed 01.03.2023 1220Z 13421 MFSK-16
 Wed 01.03.2023 1230Z 12121 MFSK-16
 Wed 01.03.2023 1240Z 11121 MFSK-16
 Wed 01.03.2023 1250Z 10421 MFSK-16

Fri 10.03.2023 1300Z 20072 MFSK-16 4:31
 Fri 10.03.2023 1310Z 19572 MFSK-16
 Fri 10.03.2023 1320Z 18372 MFSK-16
 Fri 10.03.2023 1330Z 17472 MFSK-16
 Fri 10.03.2023 1340Z 16272 MFSK-16
 Fri 10.03.2023 1350Z 14972 MFSK-16

Tue 04.04.2023 0500Z 13527 MFSK-16 1:42
 Tue 04.04.2023 0510Z 13927 MFSK-16
 Tue 04.04.2023 0520Z 14727 MFSK-16
 Tue 04.04.2023 0530Z 14927 MFSK-16
 Tue 04.04.2023 0540Z 15827 MFSK-16
 Tue 04.04.2023 0550Z 16327 MFSK-16

Tue 04.04.2023 1300Z 20038 MFSK-16
 Tue 04.04.2023 1310Z 19538 MFSK-16
 Tue 04.04.2023 1320Z 18268 MFSK-16
 Tue 04.04.2023 1330Z 17468 MFSK-16
 Tue 04.04.2023 1340Z 16268 MFSK-16
 Tue 04.04.2023 1350Z 15868 MFSK-16

Tones, Hybrids and FSK

X06 Mazielka (1c) logs section

Date	Day UTC	Freq	Scale	Monitor	Comments
20230301	Wed 0919-0923	14631	362154	Ary/NL,Dave/AU	TX to Athens, G32
20230301	Wed 1125-1136	13979	215346	Ary, RX39	Alert 2 (TX to Mumbai, G25) 1
20230301	Wed 1137-1139	12207	215346	RX39	2.2
20230302	Thu 0748	18575	352416	Ary	TX to Dar es Salaam, G43
20230302	Thu 0801	17534	351264	Ary	TX to Abu Dhabi, G440 (new)
20230302	Thu 1329-1337	16277	436512	Ary, RX39	TX to Harare, G44
20230303	Fri 0920-0922	13556	324615	RX39	TX to Madrid, G52(1)
20230303	Fri 1022-1031	12194	625413	Ary, RX39	Alert 2 (TX to Tel Aviv, G56) 1
20230303	Fri 1031-1040	14824	625413	Ary, RX39	2.2
20230305	Sun 0654-0659	14595	452163	Andrew/SE	TX to Kabul, G66
20230306	Mon 0754-0759	13452	165324	Ary, Dave	Alert 2 (TX to Vienna, G1) 1
20230306	Mon 0800-0807	11638	165324	Ary, Dave	2.2(2)
20230306	Mon 0836-0858	14377	432516	Ary, Dave	TX to Bern, G6
20230306	Mon 0905-0911	13395	532614	Ary, Andrew	TX to Paris, G4
20230306	Mon 0924-0934	18750	641523	Ary, Andrew	TX to Lusaka, G5
20230307	Tue 0823-0824	15989	125643	Ary, Andrew	TX to Ulanbatar, G317
20230307	Tue 0927-0936	17421	246531	Ary, Andrew	TX to Accra, G16
20230307	Tue 0929-0942	15687	154263	Ary, Dave	Alert 7 (TX to Rome, G405) 1
20230307	Tue 0942-1004	13401	154263	Ary, Dave	7.2 (0919-0925 UTC: MFSK66)
20230307	Tue 1021-1132	13401	154263	Ary, Dave	7.3: VERY long
20230307	Tue 1132-1135	15687	154263	Ary, Dave	7.4
20230307	Tue 1136-1145	14358	154263	Ary, Dave	7.5
20230307	Tue 1149-1152	17454	325614	Ary, Dave	TX to Nairobi, G392
20230309	Thu 0912-0919	14550	153624	Ary, Dave	TX to Damascus, G249
20230310	Fri 0940-0951	12177	356412	Ary, Dave	TX to Berlin, G126
20230313	Mon 0821-0830	17475	156234	Ary, Dave	TX to Kampala, G68
20230313	Mon 0936-1011	11424	421635	Ary, Dave	TX to Oslo, G74
20230314	Tue 0759-0801	11545	534216	Dave	TX to Bagdad, G87
20230314	Tue 0823-0833	16257	542136	Ary, Dave	TX to Beijing, G88
20230314	Tue 0922-0926	16317	612534	Dave	TX to Ashgabat, G89
20230314	Tue 1013-1018	17470	216354	Ary, Dave,RX39	TX to Chennai, G388
20230315	Wed 0749-0752	14405	256341	Ary, Dave	TX to Beirut, G169
20230315	Wed 1120-1123	16115	215346	RX39	TX to Mumbai, G167
20230315	Wed 1749	9173	542136	Ary	TX to Beijing, R
20230316	Thu 0927-0929	18197	645321	Ary, RX39	TX to Ho Chi Minh City, G417
20230320	Mon 0759-0803	14352	165324	Ary, Dave	TX to Vienna, G145
20230320	Mon 0854-0858	14377	432516	Ary, Andrew	TX to Bern, G341
20230320	Mon 0932-0934	20675	641523	Andrew	TX to Lusaka, G337
20230321	Tue 0855-0900	13411	165423	Andrew	TX to Brussels, G151
20230321	Tue 0939-0946	15687	154263	Andrew	Alert 2 (TX to Rome, G148) 1
20230321	Tue 0945	14358	154263	Ary	2.2(3)
20230321	Tue 1145-1156	16188	325614	Ary, Andrew	TX to Nairobi, G400
20230322	Wed 0733?	20950	435621	RX39	TX to Maputo, G244
20230322	Wed 0755-0757	18177	164253	Ary, Dave	TX to Addis Ababa, G402
20230322	Wed 0907-0911	14812	263145	Ary, Andrew	TX to Prague, G435
20230323	Thu 0758-0817	13854	521634	Ary, Dave	TX to Bucharest, G261
20230323	Thu 0823-0827	13843	153624	Ary, Dave	TX to Damascus, G249
20230324	Fri 0930-0935	12177	356412	Ary, Dave	TX to Berlin, G271
20230324	Fri 1003-1008	19611	256134	Andrew	TX to Abidjan, G270
20230327	Mon 0833-0847	17475	156234	Ary, RX39	TX to Kampala, G203(4)
20230327	Mon 0928-0941	16117	463125	Ary, RX39	Alert 2 (TX to Rabat, G222) 1
20230327	Mon 0941-0945	19235	463125	Ary,	
				Anon63324,RR45	2.2
20230327	Mon 1256-1301	10452	364152	RX39	TX to New Delhi, G73

20230328	Tue	0807-0809	13420	534216	Dave	TX to Bagdad, G232
20230403	Mon	0810-0814	11438	532614	Hostog	TX to Paris, G4
20230405	Wed	1548	12186	214356	Andrew	TX to Amman, G24
20230406	Thu	0759-0804	17534	351264	Ary, Andrew	TX to Abu Dhabi, G440
20230406	Thu	0847	16340	1-----	Andrew	X06d
20230406	Thu	0920-0925	16103	645321	Ary, Andrew	TX to Ho Chi Minh City, G410
20230412	Wed	0835-0855	11153	465132	Schorschi,Dave	TX to Sofia, G100
20230414	Fri	0658	14695	341265	Ary	Rare scale, R
20230414	Fri	1016	13510	216435	Ary	TX to Dhaka, G439
20230418	Tue	0801-0813	15989	125643	Ary, Andrew	TX to Ulanbatar, G383
20230418	Tue	0820-0822	13401	154263	Ary, Andrew	TX to Rome, S1 in NL, G148
20230418	Tue	1132-1147	16188	325614	Ary, Anon52757	TX to Nairobi, G400(5)
20230419	Wed	1105-1106	14650	215346	Ary, Andrew	TX to Mumbai, G167
20230420	Thu	0720	19511	314265	Andrew	TX to Antananarivo, G178
20230420	Thu	0839	13459	1--616	Andrew	X06b
20230420	Thu	0922-0925	14547	645321	Ary, Andrew	Alert2 (Ho Chi Minh City, G417)1
20230420	Thu	0926	18197	645321	Ary	2.2(6)
20230420	Thu	1023	14926	2-16--	Andrew	X06b
20230420	Thu	1138-1141	14947	351264	Ary, Andrew	TX to Abu Dhabi, G434
20230421	Fri	1038-1112	13547	625413	Ary, Vladdi, Anonymouse	Alert 3 (Tel Aviv, G193) 1
20230421	Fri	1108	16302	625413	Ary	3.2: parallel TX
20230421	Fri	1125	14824	625413	Ary	3.3
20230424	Mon	0828-0833	17475	156234	Dave	TX to Kampala, G203
20230424	Mon	0927	16117	463125	Ary, Dave	TX to Rabat, G222
20230424	Mon	1243-1250	12177	364152	Andrew	TX to New Delhi, G73
20230425	Tue	0757-0759	13420	534216	Ary, Andrew	TX to Bagdad, G232
20230426	Wed	0730	20950	435621	Andrew	TX to Maputo, G244
20230429	Sat	1218	9261	1--616	Schorschi	X06b

- 1) Transmitter malfunction
- 2) Break between 0802 and 0804 UTC
- 3) 0935-0938 UTC: MFSK66 on this freq
- 4) Break at 0838 UTC
- 5) Weak but readable in NL
- 6) M42 MFSK66 Russian diplo on 18195 kHz at 0928 UTC

Many thanks to all contributors. Till next time I say as usual: good-bye – and stay safe!

Jochen Schäfer, Numbers-, X06 Database and Teamkopf

Tnx Jochen

HM01

No reports

F01

From H-FD

Wed 12.04.2023 1015Z 10177 FSK 200/500 6:45
 Wed 12.04.2023 1025Z 8076 FSK 200/500
 Wed 12.04.2023 1035Z 6974 FSK 200/500

Gizza Job



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NSA ON CAMPUS!

March 7  UNIVERSITY OF NORTH GEORGIA	March 8  Rochester Institute of Technology
March 9  COLORADO STATE UNIVERSITY	

IntelligenceCareers.gov/NSA



Chart Section Index

1. Prediction Chart
2. M01 Schedule
3. Family III
4. XPA1 Wednesday/Friday schedule
XPA2 schedules m and p

May 2023

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Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	May kHz, ID, ...	Jun kHz, ID, ...
x	x	x	x	x			0000		F01	01A	17471	17471
x	x	x	x	x	x	x	0000		V13	0		11430,13975
x				x			0025/0035		F01	01A	14941/12221	16218/13949
	x			x			0030/0050/0110		M12	01B	8161/ 9161/10561 115	7857/ 9157/10457 814
x	x	x	x	x	x	x	0100		V13	0		9276,11430
x				x			0125/0135		F01	01A	14941/12221	16218/13949
x	x	x	x	x	x	x	0200		V13	0	15388	7502
						x	0200/0220/0240		V07	01B	search	search
x	x						0210/0310 tue, when msg		E06	01A	11404/13562 537	11557/13803 537
x				x			0210/0230/0250		M12	01B	13426/12126/10226 412	15918/14818/13918 989
			x	x			0300/0400		E06	01A	14767/12157 361	14932/12212 361
x	x	x	x	x	x	x	0300		V13	0	15388	9276
x		x					0315		E11	03	14575 25# check	14575 25#
x	x	x	x	x	x	x	0400		V13	0	9725	15388
x	x	x	x	x			0400/0420		S06	01A	11616/ 9322 480	11616/ 9322 480
	x		x				0445		S11A	03	9968 79#	9968 79#
x							0450		E11	03	7469 41#	7469 41#
x		x		x		x	0455		HM01	18	10860	10860
	x		x		x		0455		HM01	18	11462	11462
x	x	x	x	x	x	x	0500		V13	0	9725, 18040	11430
	x		x				0500		S11A	03	x 15690 38# search	x 15690 38# search
x	x						0500/0510/0520 0530/0540/0550		XPB1	01B	13435/13935/14435 14835/15935/16225	11559/12159/13459 13959/14459/14959
x	x	x	x	x			0500/0520		M14	01A	12211/10243 952	12211/10243 952
	x		x				0500/0520/0540		XPA2	01B	11168/12168/13368	10315/11115/12215
			x	x			0500/0600	1/3	E06	01A	14565/16125 460	13985/15830 328
x		x					0510		S11A	03	13537 65#	13537 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	0555		HM01	18	10345	10345
	x		x		x		0555		HM01	18	14375	14375
				x		x	0600		E11	03	9150 35#	9150 35#
x	x	x	x	x	x	x	0600		V13	0	11430	11430
						x	0600/0620/0640		E07	01B	10317/11117/12217 312	10317/11117/12217 312

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	May kHz, ID, ...	Jun kHz, ID, ...
	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					0640		E11	03	15800 94#	15800 94#
	x		x				0645		E11	03	8091 51#	8091 51#
x		x		x		x	0655		HM01	18	9330	9330
	x		x		x		0655		HM01	18	13435	13435
x			x				0700		S11A	03	9339 47#	9339 47#
	x			x			0700		E11	03	8680 57#	8680 57#
					x	x	0700		E11	03	7377 49#	7377 49#
x	x	x	x	x	x	x	0700		V13	0	15388	15388
						x	0700		M01	01B	6780 025	6780 025
	x		x				0700/0720/0740		M12	01B	13423/12123/11123 411, check	14581/13481/12181 541, check
x		x					0700/0720/0740		XPA2	01B	12148/13448/13948	12148/13448/13948
	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	18030 75#	18030 75#
	x			x			0715		E11	03	10429 63#	10429 63#
	x			x			0720		M01A	14	9151 728	9151 728
x							0745		E11	03	9610 26#	9610 26#
	x		x				0745		E11	03	14940 22#	14940 22#
		x		x			0745		E11	03	15720 34#	15720 34#
x		x		x		x	0755		HM01	18	9065	9065
	x		x		x		0755		HM01	18	11365	11365
x	x	x	x	x	x	x	0800		V13	0	15388	15388
	x			x			0800/0820/0840		M12	01B	13459/13959/ 496 search	13531/13931/ 595 search
				x		x	0800/0820/0840		XPA2	01B	search	13373/13973/14973
	x	x					0820		E11	03	17378 13#	17378 13#
			x	x			0820		E11	03	4909 43#	4909 43#
x				x			0830		E11	03	15720 18#	15720 18#

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	May kHz, ID, ...	Jun kHz, ID, ...
					x	x	0830		S11A	03	5149 37#	5149 37#
x		x					0845		E11	03	12815 71#	12815 71#
	x		x				0845		E11	03	14972 15# check	14972 15# check
		x		x		x	0855		HM01	18	9240	9240
	x		x		x		0855		HM01	18	11462	11462
x		x					0900		E11	03	9052 53#	9052 53#
				x		x	0900/0920/0940		XPA2	01B		
x		x					0910/0930/0950		XPA2	01B	17431/15841/13934	17417/15812/14504
			x		x		0910/0930/0950		XPA2	01B	14794/13994/12194	13527/12227/11427
x				x			0915		S11A	03	6814 48#	6814 48#
		x	x				0930		E11	03	6923 27#	6923 27#
x	x	x	x	x	x	x	0930		M14	01A	16347 10.&25. 14878 11.&26. when msg	16347 10.&25. 14878 11.&26. when msg
						x	0930/1000		E06	01A	14735/12207 480	
x		x		x		x	0955		HM01	18	9155	9155
	x		x		x		0955		HM01	18	12180	12180
	x			x			1000		E11	03	12153 30#	12153 30#
	x	x	x	x			1015/1025/1035		F01	01A	11414/ 9317/ 7572	11487/ 9376/ 7591
x		x					1045		E11	03	x8545 69#, search	x8545 69#, search
		x			x		1100/1110/1110 1130/1140/1150		XPB1	01B	13961/13361/12161 11461/10761/10161	13876/13376/12176 11576/10676/10276
	x			x			1100/1120/1140		XPA2	01B	16159/14359/13459	15874/14474/13374
		x	x				1100/1120/1140		XPA2	01B	16147/15847/14747	15982/14982/13882
			x				1110/1130/1150		M12	01B	13386/12189/11491 725	13386/12189/11491 725
x	x	x	x	x	x	x	1200		V13	0	9276, 13974	9276, 13974
x					x		1200/1210/1210 1230/1240/1250		XPB1	01B	16329/15929/14829 14429/13929/13529	15876/14876/14376 13976/13376/12176
	x	x					1205		E11	03	6304 46#	6304 46#
		x		x			1210/1230/1250		XPA1	01B	13419/12219/11419	13535/12145/11145
x							1230/1250/1310		M12	01B	12205/13559/14728 973	12205/13559/14728 973
x			x				1300		E11	03	5737 31#	5737 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	search	search
					x		1300/1320/1340		E07	01B	12176/11576/10276 512	12176/11576/10276 512
					x		1300/1330		E06	01A	13457/11128 480	
	x			x			1400		S11A	03	7772 42#	7772 42#

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	May kHz, ID, ...	Jun kHz, ID, ...
x			x				1400/1420/1440		M12	01B	20282/19482/1382 243	
			x		x		1410/1430/1450		E07	01B	15836/14536/13536 157	13417/14717/15817 603
	x					x	1430		E11	03	12984 91#	12984 91#
						x	1500		M01	14	6435 025	6435 025
	x	x	x				1500/1600		S06	01A		13944;11496 387
	x			x			1500/1520/1540		E07	01B	search	search
						x	1500/1520/1540		XPA2	01B	15938/14538/13438	14892/13492/12192
			x				1530		E11	03	10356 26#	10356 26#
					x	x	1530		E11	03	5082 36#	5082 36#
x	x	x	x	x	x	x	1555		HM01	18	11435	11435
x			x				1600/1620/1640		M12	01B		17427/16327/14627 436
		x				x	1600/1620/1640		M12	01B	16113/15813/14813 188	14926/14426/13426 944
	x		x				1600/1620/1640		XPA2	01B	13538/14438/14938	13417/14817/15917
	x					x	1605		E11	03	5231 23#	5231 23#
	x		x				1645		E11	03	14575 33#	14575 33#
x	x	x	x	x	x	x	1655		HM01	18	11530	11530
		x		x			1715		E11	03	7863 97#	7863 97#
			x				1730		E11	03	8088 41#	8088 41#
x						x	1745		E11	03	14410 24#	14410 24#
x	x	x	x	x	x	x	1755		HM01	18	11635	11635
	x		x				1800		M01	14	5280 025	5280 025
						x	1800/1820/1840		M12	01B	11435/10598/ 9227 938	11435/10598/ 9227 938
				x		x	1815		E11	03	12229 92#	12229 92#
	x			x			1840/1850/1900	1	F01	01A	14363/12189/10346	14621/12206/10465
		x			x		1850		S11A	03	12457 28#	12457 28#
x			x				1900		E11	03	7600 64#	7600 64#
		x					1900/1920/1940		M12	01B	8047/ 6802/ 5788 463	8047/ 6802/ 5788 463
		x		x			1900/1920/1940		M12	01B	15936/14736/13536 975	15823/14823/13923 889
				x			1900/2000	1/3	S06	01A	/ 637 search	
		x			x		1910		E11	03	4783 39#	4783 39#

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	May kHz, ID, ...	Jun kHz, ID, ...
				x		x	1910		E11	03	9610 61#	9610 61#
			x			x	2000		E11	03	5409 52#	5409 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	Mar kHz, ID, ...	Apr kHz, ID, ...	May kHz, ID, ...	Jun kHz, ID, ...	Remarks
x							0315		E11	03	11581 25#	11581 25#	14575 25# check	14575 25#	since 01/14, last log 04/23 change from Wed/Thu 11092 kHz to Mon/Wed 11581 kHz during March
x		x					0445		S11A	03	10728 79#	10728 79#	9968 79#	9968 79#	since 05/22, last log 04/23
x							0450		E11	03	5371 41#	5371 41#	7469 41#	7469 41#	since 02/10, last log 04/23 2nd transmission Thu 1730z
x		x					0500		S11A	03	14769 38#	x14769 38# search	x15690 38# search	x15690 38#	since 05/14, last log 04/23 ceased during 04/23
x		x					0505		E11	03					since 10/11, last log 02/23 Mar/Apr/Sep/Oct at 1230z, Mai-Aug at 1645z
x		x					0510		S11A	03	11116 65#	11116 65#	13537 65#	13537 65#	since 08/19, last log 04/23
				x		x	0600		E11	03	8680 35#	8680 35#	9150 35#	9150 35#	since 04/15, last log 04/23
x		x					0640		E11	03	14865 94#	14865 94#	15800 94#	15800 94#	since 07/17, last log 04/23
x		x					0645		E11	03	8423 51#	8423 51#	8091 51#	8091 51#	since 07/09, last log 04/23
x				x			0700		S11A	03	8597 47#	8597 47#	9339 47#	9339 47#	since 04/10, last log 04/23
x				x			0700		E11	03	8180 57#	8180 57#	8680 57#	8680 57#	since 01/12, last log 04/23
					x	x	0700		E11	03	9079 49#	9079 49#	7377 49#	7377 49#	since 07/15, last log 04/23
x		x					0715		E11	03	15632 75#	15632 75#	18030 75#	18030 75#	since 06/21, last log 04/23
x				x			0715		E11	03	9963 63#	9963 63#	10429 63#	10429 63#	since 02/11, last log 04/23
x							0745		E11	03	10213 26#	10213 26#	9610 26#	9610 26#	since 03/14, last log 04/23 2nd transmission Thu 1530z
x		x					0745		E11	03	14865 22#	14865 22#	14940 22#	14940 22#	since 01/20, last log 04/23
		x		x			0745		E11	03	17410 34#	17410 34#	15720 34#	15720 34#	since 06/17, last log 04/23
x		x					0820		E11	03	19184 13#	19184 13#	17378 13#	17378 13#	since 12/18, last log 04/23
			x	x			0820		E11	03	5941 43#	5941 43#	4909 43#	4909 43#	since 10/09, last log 04/23
x				x			0830		E11	03	15905 18#	20170 18#	15720 18#	15720 18#	since 07/15, last log 05/23
					x	x	0830		S11A	03	6433 37#	6433 37#	5149 37#	5149 37#	since 02/14, last log 04/23
x		x					0845		E11	03	12202 71#	12202 71#	12815 71#	12815 71#	since 09/10, last log 04/23
x		x					0845		E11	03	18168 15#	18168 15#	14972 15# check	14972 15#	since 07/17, last log 04/23
x		x					0900		E11	03	9968 53#	9968 53#	9052 53#	9052 53#	since 10/05, last log 04/23
x				x			0915		S11A	03	6480 48#	6480 48#	6814 48#	6814 48#	since 04/19, last log 04/23
		x		x			0930		E11	03	6940 27#	6940 27#	6923 27#	6923 27#	since 02/14, last log 04/23
x				x			1000		E11	03	9951 30#	9951 30#	12153 30#	12153 30#	since 11/16, last log 04/23
x		x					1045		E11	03	10200 69#	10200 69#	x8545 69# search	x8545 69#	since 03/18, last log 04/23
x		x					1205		E11	03	6923 46#	6923 46#	6304 46#	6304 46#	since 03/10, last log 04/23
x		x					1230		E11	03	12530 33#	12530 33#			since 10/11, last log 10/22 May-Aug at 1645z, Nov-Feb at 0505z
x				x			1300		E11	03	5371 31#	5371 31#	5737 31#	5737 31#	since 07/14, last log 04/23
x				x			1400		S11A	03	6797 42#	6797 42#	7772 42#	7772 42#	since 02/10, last log 04/23
x					x		1430		E11	03	14972 91#	14972 91#	12984 91#	12984 91#	since 10/15, last log 04/23
				x			1530		E11	03	10330 26#	10330 26#	10356 26#	10356 26#	since 06/14, last log 04/23 2nd transmission Mon 0745z
					x	x	1530		E11	03	4505 36#	4505 36#	5082 36#	5082 36#	since 03/14, last log 04/23
x					x		1605		E11	03	5176 23#	5176 23#	5231 23#	5231 23#	since 11/15, last log 04/23
x		x					1645		E11	03			14575 33#	14575 33#	since 10/11, last log 08/22 Mar/Apr/Sep/Oct at 1230z, Nov-Feb at 0505z
		x		x			1715		E11	03	6923 97#	6923 97#	7863 97#	7863 97#	since 02/15, last log 04/23
				x			1730		E11	03	7864 41#	7864 41#	8088 41#	8088 41#	since 03/10, last log 04/23 2nd transmission Mon 0450z
x					x		1745		E11	03	13470 24#	13470 24#	14410 24#	14410 24#	since 04/18, last log 04/23
				x		x	1815		E11	03	11116 92#	11116 92#	12229 92#	12229 92#	since 05/16, last log 04/23
		x			x		1850		S11A	03	10213 28#	10213 28#	12457 28#	12457 28#	since 06/17, last log 04/23
x				x			1900		E11	03	7317 64#	7317 64#	7600 64#	7600 64#	since 05/16, last log 04/23
		x			x		1910		E11	03	4181 39#	4181 39#	4783 39#	4783 39#	since 02/14, last log 04/23
				x		x	1910		E11	03	8530 61#	8530 61#	9610 61#	9610 61#	since 04/17, last log 04/23
				x		x	2000		E11	03	5737 52#	5737 52#	5409 52#	5409 52#	since 05/15, last log 04/23

XPA1 Wednesday/Friday schedule

Zulu >	XPA1 Wed/Fri Schedule		
Month v	H+10 1210 / 1310z	H+30	H+50
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[Sched m & p] Russian Intelligence and/or Diplomatic Multitone Systems
[Radiogramma] Transmission Schedules.

Zulu >	XPA2 Sched m			XPA2 Sched p		
Month v	Sunday/Tuesday			Monday/Wednesday		
	H 00	H+20	H+40	H 00	H+20	H+40
	1200 / 2100			0700 / 0800z		
Jan	10921	12221	13521	11493	13393	13993
Feb	11163	13363	14563	13387	13887	14787
Mar	13384	13984	14984	13931	14831	16131
Apr	14442	15842	16342	11409	12209	13409
May	13376	11576	10776	12148	13448	13948
June	13427	12227	10827	12148	13448	13948
July	13394	12194	10794	12148	13448	13948
Aug	12159	11559	10559	12152	13552	13952
Sept	13914	15814	16314	12152	13552	13952
Oct	14469	16169	17469	13372	14672	15872
Nov	14783	13883	12183	11529	13429	13929
Dec	10807	12207	13507	11493	13393	13993

Special Matters

Thanks to all our contributors:

Ary, E, H-FD, HJH, Jochen and Team, KW, Malc, PLdn, PoSW, RNGB
Apologies to anyone missed.

MESSAGES

E: **Tnx Yr last. Hope all good soon. Will be enjoying Coronation as you will.**

RELEVANT WEBSITES

ENIGMA 2000 Website:

<http://www.enigma2000.org>

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

<http://www.brogers.dsl.pipex.com/page2.html>

Time zone information:

<http://www.timeanddate.com/library/abbreviations/timezones/>

Encyclopedia of Espionage, Intelligence, and Security

<http://www.faqs.org/espionage/>

2023						
Source: Vertex42.com						
January						
Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				
February						
Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				
March						
Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	
April						
Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						
May						
Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			
June						
Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	
July						
Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					
August						
Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		
September						
Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						
October						
Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				
November						
Su	M	Tu	W	Th	F	Sa
		1	2	3	4	
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		
December						
Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

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