

ENIGMA 2000 NEWSLETTER



<http://enigma2000group.org>



GCHQ Scarborough

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See last page also.

IN KEEPING WITH OUR ANNOUNCEMENT IN OUR RECENT NEWSLETTERS ENIGMA2000 WILL NOT DISCUSS THE RUSSIAN/UKRAINE MATTER BEYOND TECHNICAL MATTERS

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

Editorial

It's fair to say that apart from the usual solar performance and associated poor propagation the main effect we observe seems to be the diminishing Number Station activity. Peter sums this up nicely below; Richard has also mentioned the apparent smaller list of active S06 stations.

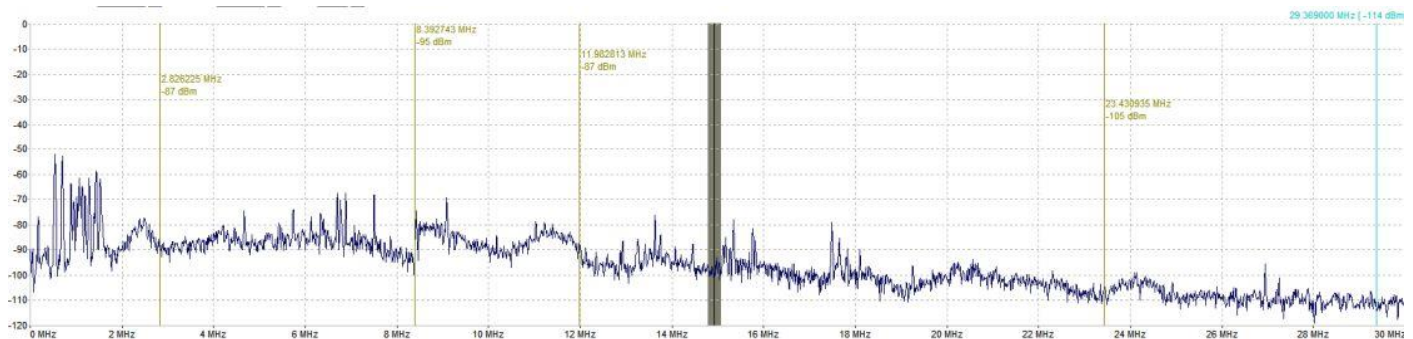
PoSW writes: Not much new to report with regard to the number station scene. E07 seems to be winding down, the Sunday + Wednesday 1700z schedule ceased in early May of this year - unless someone knows otherwise - and the Saturday 1300z and Sunday 0600z have sent "000 - no message" throughout July and August. The other E07 schedule I monitor, Saturday + Thursday 1410z has sent several messages during the last couple of months.

I monitor several E11 schedules, those which are on at convenient times and are strong enough to justify spending time on and most transmissions heard have been of the "no message" format of just over three minutes.

Local RF noise interference continues to be a problem, particularly fierce from the HF end of the medium wave broadcast band up to about 3 MHz, no number stations here, and again from about 8.5 to 11.5 MHz where signals have to be really strong to be heard clearly. This seems to be coming from the overhead phone lines; a few weeks back there were thunderstorms around and the power went off, just for a few minutes; lightning strike tripping some protective device, presumably. I was able to tune around on a battery powered radio while the power was off and was surprised to find that the interference was not much lower than when the power was on which suggests that it does not come from mains powered devices.

The RF interference mentioned is like my own experiences; such RF is way above the expected noise floor and doubtless to do with Broad Band distribution. So far it seems the PLT devices, whilst still about are not in great use.

Thanks Peter; this is the situation at my QTH, not so different from yours:



E's UNID SIGNALS

Further investigations have been forthcoming with the odd transmission sent in by E. Not such a mystery as we thought and we are reliably informed such transmissions are to do with Location. Think outdated Loran was the remark from one correspondent, not a member [Thanks PJC of Cheltenham].

Another suggestion came from another non-member via the webpage and suggested:

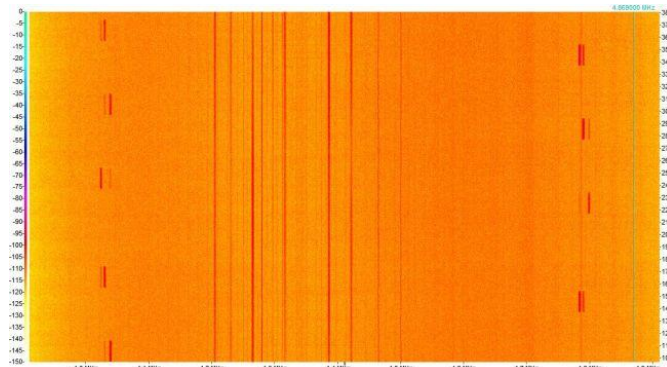
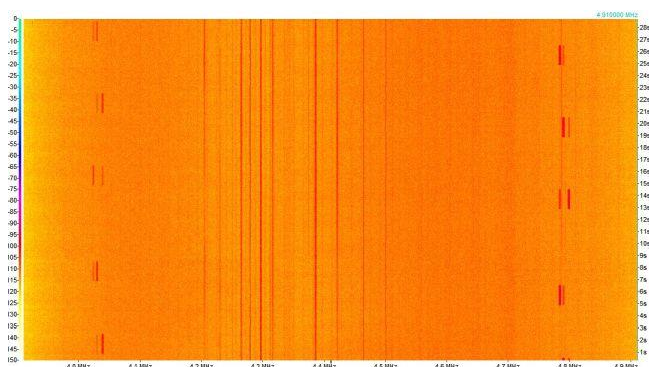
Message:
Ref: Enigma 131 (July/2022)
Request from "E"

Those signals are described in

[8-ary constellation bursts at 12800bps data rate \(likely UK-MoD\) | diario SWL I-56578 Antonio \(i56578-sw.l.blogspot.com\)](#)

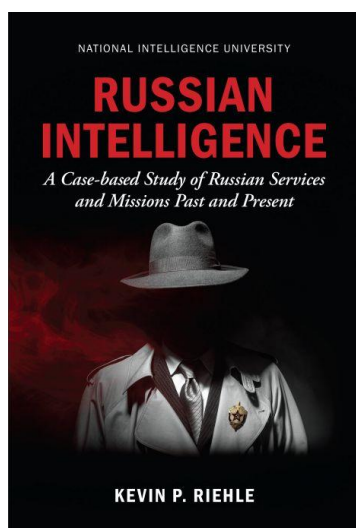
Best regards.

Well he may well be right. If anyone can throw further light on this please do; our correspondent suggested Russian origins. Who knows? Here's a couple of screen snatches from my SDR



Notwithstanding the above there is also the suggestion of British Military signals also.

Recommended Reading



I haven't read this volume, it has 359 pages.

If you are interested in the technical side of things then these pages will fill your desire:

110 -111

139

197

236 – 251 and beyond.

What is good is the volume can be downloaded FOC:

https://ni-u.edu/wp/wp-content/uploads/2022/05/Riehle_Russian-Intelligence.pdf

Since writing this I now have a softcover copy ready for reading! Full of good info. I have difficulty reading from the screen, I also like the feel of the pages twixt the digits.

Newsround

The U.S. Keeps Losing Wars Because Nobody Listens to the Spooks

THE PATH OF ARROGANCE

The intel failures behind conflicts from Vietnam to Afghanistan are not identical, but most of them come down to the people in power not listening to the spies on the ground.

James A. Warren

Updated Jul. 03, 2022 5:20AM ET / Published Jul. 02, 2022 11:22PM ET

<https://www.thedailybeast.com/the-us-keeps-losing-wars-because-nobody-listens-to-the-spooks?via=ios&s=09>

In mid-May, CNN reported that the U.S. intelligence community was about to begin a sweeping review of the way it does business. What prompted the senior officials to action? The answer is simple enough: alarmingly inaccurate predictions as to the durability of the U.S.-supported government of Afghanistan, which led to a decidedly ignominious withdrawal of our forces there, as well as overly pessimistic projections of Ukraine's ability to stave off a major assault by the Russian army.

In view of the gravity of those mistakes, this seems a necessary and laudable undertaking. But... don't expect the review and inevitable list of recommendations to improve the complicated process of gathering, analyzing, and consuming intelligence products by much. So say two of the leading scholars of intelligence in the English-speaking world, Richard Betts and the late Robert Jervis, both of Columbia University's political science department. After decades of studying the question, these men concluded that invariably the recommendations of commissions designed to improve the caliber of the intelligence process after American wars tend to produce a new set of problems. As Betts put it in a widely quoted essay on this topic:

Curing some pathologies with organizational reforms often creates new pathologies or resurrects old ones; perfecting intelligence production does not necessarily lead to perfecting intelligence consumption; making warning systems more sensitive reduces sensitivity; the principles of optimal analytic procedure are in many ways incompatible with the imperatives of the decision-making process; avoiding intelligence failure requires the elimination of strategic preconceptions, but leaders cannot operate purposefully without some preconceptions. In devising measures to improve the intelligence process, policymakers are damned if they do and damned if they don't.

Strategic intelligence, which Betts nicely defines with admirable economy as “the acquisition, analysis, and appreciation for relevant data,” is an extremely tricky business. It’s a unique amalgam of science and art, for it invariably involves political and psychological factors that are unique to a given conflict, and subject to abrupt change. And it must not be forgotten that senior intelligence officials have to sell their product well if it is to carry real weight with consumers, and that’s an entirely separate skill than producing good analysis.

Of course, serious students of recent American military history already have a basic understanding of what went wrong in assessments of the final phase of the Afghan tragedy, and in the first phase of the Russia-Ukraine war. Broadly speaking, the American intelligence community—the 18 agencies involved in its collection, along with the chief consumers, the White House and the National Security Council—have become overly dependent on quantitative analysis derived primarily from technical and electronic sources (signal intelligence), at the expense of both human intelligence (agents and sources on site in the arena of conflict) and expertise about the political dynamics and cultural histories of foreign societies.

What Clausewitz called moral, or spiritual, factors in his masterwork, *On War*—the will to fight among the soldiers of an army, the level of popular support for the government, the creativity and intuition of the political leaders of the adversaries—these are things that Clausewitz says “cannot be classified or counted. These have to be seen and felt.”

On paper, the American-trained Afghan National Army of more than 300,000 troops, armed with far more sophisticated weapons than the Taliban, including drones and jet fighters, should have been able to hold off the final offensive Taliban onslaught well into 2022. That didn’t happen, because except for some 30,000 Afghan Special Forces, the rest of the “army” had no interest in defending a government they and their families perceived to be corrupt, ineffectual, and in the pocket of the West. The majority of the Afghan army units did not put up any resistance to the Taliban. They negotiated their own surrender or offered no resistance whatsoever.

As for the CIA projections that the Russians would break the back of Ukrainian resistance in a matter of days, it’s clear that analysts relied too much on their quantitatively based assessment of Russian units and weapons systems, while their grasp of Clausewitz’s “moral factors” on both sides was shaky, at best.

One of the most significant failures in U.S. intelligence since Vietnam was the community’s inability to get a grip on the swirling political and military developments surrounding the Iranian revolution of 1979. In February of that year, a bizarre collection of liberal reformers, leftists, and Muslim fundamentalist clerics overthrew the Shah of Iran, Mohammad Reza Pahlavi, at the time the United States’ most powerful ally in the Middle East and a bulwark against Soviet expansionism. Led by a glowering, mysteriously charismatic cleric, Ayatollah Ruhollah Khomeini, the clerics deftly outmaneuvered and marginalized their revolutionary allies, and established the world’s first modern Islamic republic.

“The Carter administration’s responses to developments in Iran was halting, contradictory, and in the opinion of every serious historian of U.S. relations of whom I’m aware, depressingly inept.”

Anti-Americanism had been the glue that kept together the disparate factions of resistance to Pahlavi’s rule. All the revolutionaries believed that the shah, whose regime had become increasingly oppressive and corrupt, was in the pocket of Washington. Washington completely misread the dynamics of Iranian politics. Less than a year before the shah was ousted, President Jimmy Carter had praised him lavishly, calling his regime “an island of stability in a turbulent corner of the world.” The turbulence and rising tide of anti-Americanism in Iran had been in plain sight for several years, but the American intelligence community had developed no contacts among the myriad opposition groups and depended heavily on the shah’s intelligence agencies. They told the Americans not what was really going on, but what the shah wanted the Americans to know.

The Carter administration’s responses to fast-moving developments in Iran before and after that event, including the infamous hostage crisis of 444 days, was halting, contradictory, and in the opinion of every serious historian of U.S. relations of whom I’m aware, depressingly inept. Among the U.S. intelligence community, opines the noted military historian Lawrence Freedman in his history of U.S. policy in the Middle East, *A Choice of Enemies*, “there was little grasp of the internal power struggles that were soon underway in Tehran. The diplomats and intelligence specialists sent to try to pick up the pieces of U.S.-Iranian relations lacked any expertise in the ideological wellsprings of the Islamic movement... Because clerics were not generally known for their lust for power or their appetite for government, the comforting assumption was that their role would soon be circumscribed by proper politicians.”

Professors Betts and Jervis join a wide consensus of scholars in believing that the most egregious intelligence failures in recent American history lie more with the top-level consumers of intelligence than with the CIA or the other myriad organizations involved in its collection and analysis. Here, the chief villains, writes Betts, are “wishful thinking, disregard of professional analysis, and the preconceptions of consumers.” There was nothing impulsive about the series of decisions that committed the United States to fighting a major war in Vietnam, and then prolonged America’s commitment to winning that conflict, even as signs of failure began to accumulate like buzzards around a corpse.

Between 1950 and the summer of 1965, three U.S. presidents opted to expand America’s involvement in Vietnam, despite that ancient Asian country’s seeming irrelevance to American vital interests, and the extraordinary level of dysfunction and corruption among America’s Vietnamese allies. Had President Johnson heeded the CIA’s pessimistic reports about American prospects in Vietnam, he never would have committed the country to a major ground war.

While the Johnson administration’s “best and the brightest” justified America’s growing military presence in Southeast Asia as a proper response to “wars of national liberation” sponsored by the Kremlin and Beijing, the CIA consistently pointed out that this was simply not the case. Hanoi ran its own show, deftly playing off one communist superpower against the other, and frequently decided to go its own way in the prosecution of the war effort against the Americans. The Agency’s doubts about the trajectory of American policy in the war were especially pronounced during late 1964 and early 1965, when the Johnson administration crossed the Rubicon by deploying American combat units to take the fight to the enemy in the South in March 1965. In effect, Johnson took over management of the war from the South Vietnamese and put it in the hands of his own generals.

Here is a brilliantly prescient assessment by CIA analyst Harold P. Ford, written in April 1965, just as LBJ was committing American Marines to offensive operations for the first time:

This troubled essay proceeds from a deep concern that we are becoming progressively divorced from reality in Vietnam, that we are proceeding with far more courage than wisdom—toward unknown ends... There seems to be a congenital American disposition to underestimate Asian enemies. We are doing so now. We cannot afford so precious a luxury. Earlier, dispassionate estimates, war games, and the like, told us that [the communists in Vietnam] would persist in the face of such pressures as we are now exerting on them. Yet we now seem to expect them to come running to the conference table, ready to talk... The chances are considerably better than even that the United States will in the end have to disengage from Vietnam, and do so considerably short of our present objectives.

Johnson ignored Mr. Ford’s sage advice. Within weeks of receiving this report, he approved General Westmoreland’s three-phase plan to win the war by 1968 through a strategy of attrition. Using as many as half a million U.S. troops, he would destroy the enemy’s main forces with massive “search and destroy” sweeps, using American mobility and firepower to vanquish an enemy without any air power whatsoever, and little motorized transport. Westmoreland would pay lip service to the CIA’s belief that the war had to be fought and won in the villages, but he’d fight and win in the traditional American way: conventional warfare, emphasizing air power and artillery, even though American military operations inflicted massive destruction on the people America had come to South Vietnam to “save.”

Why did America’s policymakers dismiss the astute counsel of the CIA’s wise men? The short answer is that they couldn’t break free of the domino theory—the false notion that if one state fell to communism, a string of others was sure to follow, and that this would lead to an irreversible loss of credibility and prestige for the United States... and for Lyndon Johnson and his senior advisers.

“The disastrous decision by the Bush administration to invade Iraq grew out of a refusal to listen to good intelligence.”

One of the most subtle and perceptive of the CIA analysts, George W. Allen, puts it well in his book, *None So Blind*: “America failed in Vietnam not because intelligence was lacking, or wrong, but because it was not in accord with what its consumers [i.e., Ike, JFK, LBJ, and their chief advisers] wanted to believe, and because its relevance was outweighed by other factors in the minds of those who made national security policy decisions.”

The disastrous decision by the Bush administration to invade Iraq grew out of a refusal to listen to good intelligence analysis as well. From the spring of 2002 forward, Bush joined with Cheney, Rumsfeld, and several other influential hawks in marginalizing a very substantial body of intelligence and analysis from within and outside the government indicating that an invasion of Iraq might well create more problems for the United States, Iraq, and the entire Middle East than it would solve.

This, at least, was the considered impression of no less a figure than Richard Dearlove, the head of Britain’s equivalent of the CIA, MI6, who engaged in top-secret discussions with the American president and his principal advisers in early July 2002.

A summary of Dearlove’s testimony about those meetings was recorded in a top-secret Downing Street memo: “There was a perceptible shift in attitude. Military action was now seen as inevitable. Bush wanted to remove Saddam, through military action, justified by the conjunction of terrorism and WMD. But the intelligence and facts were being fixed around the policy. The NSC had no patience with the UN route [of diplomatic pressure]... There was little discussion in Washington of the aftermath of military action.”

Indeed, the most reliable and objective accounts we have of the administration’s deliberations agree entirely with Dearlove’s assertions that the intelligence and facts were being manipulated to fit the administration’s policy inclinations, and that there was precious little discussion of the likely aftermath of cutting the head off the snake in Iraq.

In its secret discussions during the planning phase and in its public defense of the project, the administration aggressively “worst-cased” the threat posed by Saddam, and “best-cased” the results of removing him from power.

A four-star general who worked on the war plan for months told military writer Tom Ricks that he felt the president was shielded from the advice of those in the upper ranks of the military who thought the United States was heading into a quagmire both before and after the invasion commenced. That advice, he said, was “blown off by the president’s key advisers... the people around the president were so, frankly, intellectually arrogant. They knew that postwar Iraq would be easy and would be a catalyst for change in the Middle East. They were making simplistic assumptions and refused to put them to the test.”

The CIA and State Department analysts were far, far less sanguine about what might happen as a result of the invasion than Rumsfeld, Cheney, and the other hawks. According to Paul Pillar, the top CIA coordinator for intelligence on Iraq from 2001 to 2005, the professional intelligence community presented a picture of a political culture in Iraq that would not provide fertile ground for democracy and foretold a long, difficult, turbulent transition.

It projected that a Marshall Plan-type effort would be required to restore the Iraqi economy, despite Iraq’s abundant oil resources.

It forecast that in a deeply divided Iraqi society, with Sunnis resentful over their loss of their dominant position and Shiites seeking power commensurate with their majority status, there was a significant chance that the groups would engage in violent conflict unless and occupying power prevented it.

And it anticipated that a foreign occupying force would itself be the target of resentment and attacks—including by guerrilla warfare—unless it established security and put Iraq on the road to prosperity in the first few weeks or months after the fall of Saddam... War and occupation would boost political Islam and increase sympathy for terrorists’ objectives—and Iraq would become a magnet for extremists from elsewhere in the Middle East.

The policy implications of “the entire body of official intelligence analysis,” said Pillar, was to avoid war, or “if war was going to be launched, to prepare for a messy aftermath.”

Vietnam and Iraq, of course, were fundamentally irregular, or asymmetric conflicts. Far more than conventional conflicts, irregular wars are shaped more by politics and political organization among the people than by military operations. Since Vietnam, America’s senior foreign policy decision makers have a very unfortunate habit of forgetting this fundamental truth. They have been overly enamored by the power of the U.S. military machine, but obtuse in failing to recognize the limits of military power alone to shape politics in foreign societies.

This tendency goes far in explaining why the United States keeps losing wars.

<https://www.thedailybeast.com/the-us-keeps-losing-wars-because-nobody-listens-to-the-spooks?via=ios&s=09>

U.S. probing how American electronics wound up in Russian military gear

FBI and Commerce Department agents are visiting tech companies to ask about computer chips found in drones, other weaponry

By Jeanne Whalen

Updated June 15, 2022 at 11:18 p.m. EDT | Published June 15, 2022 at 6:55 p.m. EDT

<https://www.washingtonpost.com/world/2022/06/15/us-computer-chips-russian-military/?s=09>

Federal agents have begun questioning U.S. technology companies on how their computer chips ended up in Russian military equipment recovered in Ukraine.

Commerce Department agents who enforce export controls are conducting the inquiries together with the FBI, paying joint visits to companies to ask about Western chips and components found in Russian radar systems, drones, tanks, ground-control equipment and littoral ships, according to people familiar with the matter, who spoke on the condition of anonymity to discuss sensitive investigations.

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“Our goal is to actually try to track that back, all the way back to the U.S. supplier” to determine “how did it find its way into that weapons system,” one Commerce Department official said of the probes.

“Just because a chip, a company’s chip, is found in a weapon system doesn’t mean we’ve opened up an investigation on that company,” the official added. “What we’ve done, though, is we’ve opened up an investigation on how that company’s chip got into that system.”

It isn’t clear which specific components are being probed. But investigators from a variety of countries have identified Western electronics in Russian weaponry found in Ukraine. Many of those components appear to have been manufactured years ago, before the United States tightened export restrictions after Russia seized Crimea in 2014. But others were manufactured as recently as 2020, according to Conflict Armament Research (CAR), a research group in London that has examined some of the parts.

For years it was legal for companies to sell basic computer chips to Russian military entities without first receiving permission from the U.S. government, so pinpointing illegal sales requires determining the type of chip and date of sale. Tracing transactions can also be laborious because electronic components often travel through a chain of distributors before reaching the end user.

A lawyer representing one of the contacted technology companies said investigators for now are casting a “wide net,” looking at a variety of different chips and electronic components to track the paths they took to the Russian military.

Among the questions federal agents are asking: whether tech companies sold their products to a specific list of companies, including middlemen, that may have been involved in the supply chain, the lawyer said.

Russia manufactures few computer chips or electronics of its own, forcing it to rely on imports.

The United States for decades has tightly controlled sales to Russia of the highest-tech chips and those designed for military use, requiring exporters to obtain a government license. But sales of electronics below that threshold — including the kind commonly found in commercial products — were not widely restricted until 2014, when the United States began requiring exporters to obtain licenses before selling a broader range of chips to the Russian military.

Since Russia’s invasion of Ukraine in February, the U.S. and many allies have prohibited all chip sales to Russian military buyers, and placed restriction on chip sales to other Russian buyers in an effort to prevent the country’s armed forces from accessing western high-tech.

The federal probes come as researchers and security services from Ukraine, Britain and elsewhere report finding a host of Western electronics in Russian military gear damaged or abandoned in Ukraine.

Sanctions forcing Russia to use appliance parts in military gear, U.S. says

CAR last month sent investigators to Ukraine to examine Russian weaponry and communications equipment, and reported finding components from 70 companies based in the United States and Europe.

They found the parts in military radios, airborne defense systems and in remnants of cruise missiles that the Ukrainians recovered in various towns and villages, Damien Spleeters, one of the CAR investigators, said in an interview.

CAR for now is declining to name the Western companies involved, because it is still contacting them to request more information, Spleeters said.

Markings on two foreign-made chips that Spleeters examined showed that they were manufactured in 2019, he said.

“It’s significant for me because it shows that even after Russia took Crimea and the first package of sanctions were taken against them, they still managed to acquire critical technology, critical components for important pieces of equipment that they are now using against Ukraine,” Spleeters said.

Those chips, found inside two Russian military radios recovered in Ukraine’s Luhansk region, had some of their identification markings scratched out, suggesting that someone “wanted to make it more difficult to find out who was involved in the chain of supply,” Spleeters said.

Another set of chips manufactured by Western companies between 2017 and 2020 were part of missile fragments that hit the southern Ukrainian city of Mykolaiv on March 29, Spleeters said. At the time, Russian forces were attempting to capture a broad swathe of Ukraine’s Black Sea coast.

CAR also examined Western-made chips manufactured between 2013 and 2018 that were part of a missile that landed in central Ukraine on Feb. 24, the first day of Russia’s invasion, Spleeters said.

The latest CAR findings follow a report from the group late last year that detailed Western electronics found in several Russian military drones.

A team from a separate British group — the Royal United Services Institute, or RUSI, a defense-focused think tank — also traveled to Ukraine recently to inspect Russian equipment and to review teardowns conducted by Ukraine’s military.

A single piece of radio-jamming equipment revealed computer chips from a dozen U.S. companies, including Intel, Analog Devices, Texas Instruments and Onsemi, according to a report RUSI published in April. The gear also contained components from half a dozen chipmakers in Europe, Japan and Taiwan.

The report published the part numbers for the components, which The Washington Post used to identify the chip companies.

The radio-interference equipment, named Borisoglebsk-2, was designed to interrupt the enemy’s communications and was probably manufactured around 2015 or later, Nick Reynolds, one of the report’s authors, said in an interview.

None of the Western chips was specifically designed for use in military equipment, according to two electrical engineers who reviewed the component list. The parts were developed for general commercial use, and many were relatively outdated, manufactured between 2000 and 2010, the engineers said.

“A lot of these components are very general purpose and could be used in wide range of devices,” said Peter Bermel, an associate professor of electrical and computer engineering at Purdue University. “Most of the items they are listing are available through any commercial computer parts supplier or digital parts supplier.”

“A non-trivial fraction of these parts are now considered obsolete by the manufacturers,” Bermel added.

Reynolds, a research analyst for land warfare at RUSI, said Russia’s technical demise in recent decades, partly sparked by a large post-Soviet brain drain, has forced it to use Western chips. “Its defense industry has struggled to attract and retain talented young engineers, who have often chosen to move abroad instead,” Reynolds said by email.

Intel spokesman William Moss said that for over a decade, all of the company’s “sales in Russia have been through distributors who are responsible for complying with applicable laws, including U.S. export controls.”

“Intel has suspended all shipments to customers in both Russia and Belarus, and Intel will continue to comply with all applicable export regulations and sanctions,” he added.

Onsemi, a chip company based in Phoenix, said it stopped producing one of the chips found in the Russian equipment in 2008. The chip was “designed for a variety of uses in commercial products,” spokeswoman Stefanie Cuene said, adding that the company complies with U.S. export controls and currently does not sell any products to Russia or Belarus.

Texas Instruments “complies with applicable laws and regulations” and “is not selling any products into Russia or Belarus,” spokeswoman Ellen Fishpaw said.

Analog Devices, the company behind more than a dozen of the components found in the Russian equipment, didn't respond to requests for comment.

The RUSI researchers also reported inspecting a U.S.-manufactured component that the Ukrainian military found inside a Russian 9M949 guided rocket. The rocket uses the component — a type of electronic device called a fiber-optic gyroscope — for navigation, RUSI said.

The British researchers declined to name the U.S. company that made that component, saying RUSI was continuing to research that and other parts.

<https://www.washingtonpost.com/world/2022/06/15/us-computer-chips-russian-military/?s=09>

[It seems the export regulations for electronics to Russia that existed in the 1980s no longer exist]

Channel migrants allowed into UK without checks to identify potential terrorists

Charles Hymas

<https://www.msn.com/en-gb/news/world/channel-migrants-allowed-into-uk-without-checks-to-identify-potential-terrorists/ar-AAZP4OT?ocid=msedgntp&cvid=e40f367c58494e0f9188a541d21334de>

Channel migrants have been allowed into the UK without ID or fingerprint checks to identify potential terrorists or criminals, a damning inspection has revealed.

David Neal, the chief inspector of borders and immigration, said some had subsequently absconded from asylum hotels, with Border Force staff warning that had put national security at risk.

As many as two thirds of those who disappeared from “secure” hotels had not undergone the necessary “biometric enrolment” to record their IDs and fingerprints so they could be identified and tracked, Mr Neal’s report revealed.

He said that not only raised a security risk but also left migrants vulnerable to trafficking, modern slavery and other abuses, adding: “Put simply, if we don’t have a record of people coming into the country then we do not know who is threatened or who is threatening.”

Mr Neal blamed the “inexcusably awful” record-keeping on a “system failure” due to officers being “clearly overwhelmed” by the number of migrants crossing the Channel in small boats.

Numbers hit a record 28,526 last year, with 15,000 people having reached the UK already this year.

The report, published on Thursday, said ID and fingerprint checks on migrants had been suspended on a “number of occasions” as Border Force officers relied on “virtually obsolete” 20-year-old handheld technology that often broke down and could not collect the information.

This meant biometric data, the key to “locking in a migrant’s identity” and a “basic state function” to protect national security, was not always recorded.

The Home Office told inspectors that 227 migrants had absconded from hotels since last September. Of 57 who disappeared from Dec 1 to Jan 7, 38 had not had their biometrics enrolled despite having been in Britain for 16 days on average.

Border Force staff told inspectors they were concerned that this meant “they cannot meet the country’s national security requirements” as, without biometric checks, they had to rely on information provided by migrants, which was “open to mistakes or deception”.

“It is the enrolled biometric which ‘locks’ the identity and essentially overrides the biographic information such as date of birth or name – if the latter is false, it does not matter as the biometrics mean the individual is known to the system,” said the report.

It meant those who had entered the UK “for other purposes” could drop below the radar. Counter-terror police told the inspectors it was “extremely important for [biometric] enrolment to occur as early as possible to identify persons of interest before they are dispersed”.

Mr Neal found that even basic records of biographical information taken by Border Force officers were littered with discrepancies and errors. Nearly 1,000 out of 7,000 records had surnames comprising just numbers, symbols or single letters such as “#”, “M021 #17 Hamid”, “#27”, “9” or “wristband”.

Ages were checked via a piece of cardboard with numbers from 1 to 63 written onto it. Migrants asked to point at a number to show how old they were, despite most coming from countries “in which the Roman alphabet was not used”.

There were no translators, so staff employed a mix of speaking slowly in English, showing question sheets in different languages, using other migrants to interpret, asking migrants to write their details on Post-It notes or asking them to enter their own information onto the Border Force system.

“These methods are not ideal and risk errors occurring in the information-gathering process,” said the report. There were also concerns that migrants were found with weapons after they had been searched by Border Force officers.

Mr Neal’s report report blamed an “ineffective and inefficient” response by the Home Office for the failings, which had exposed gaps in security procedures and left vulnerable migrants at risk.

Children were often forced to sleep in the same rooms as adult male migrants. Home Office staff did not ask about pregnancy, meaning that unless a woman was physically showing the signs of carrying a child, identification was reliant on specific questioning.

Recommendations proposed by Mr Neal have been accepted by the Home Office, which said: “There remains work to do to, but much of this report is now of a historic character and the criticisms identified reflect processes and procedures not now followed under the new operation.”

<https://www.msn.com/en-gb/news/world/channel-migrants-allowed-into-uk-without-checks-to-identify-potential-terrorists/ar-AAZP4OT?ocid=msedgntp&cvid=e40f367c58494e0f9188a541d21334de>

Suggestions to deal with these unwanted persons have included making them paddle back to the beaches they left, sinking them in sight of French shores and Rule 7.62. The fact the NVA are involved must indicate some action is being taken?

MI5 warns Chinese spying investigations are up sevenfold

Larisa Brown, Defence Editor

Wednesday July 06 2022, 5.45pm, The Times

<https://www.thetimes.co.uk/article/chinese-spying-investigations-up-sevenfold-mi5-warns-b7p65xmjw>

MI5 is running seven times as many investigations into Chinese espionage activity in Britain as it was four years ago, the head of the Security Service revealed today.

Ken McCallum, the director-general, said MI5 planned to double efforts to stop Beijing's spies operating in Britain as it faces its most "game-changing challenge" from an increasingly aggressive China.

He was joined by Christopher Wray, head of the FBI, who warned that China was learning lessons from the Ukraine crisis and beefing up its resilience to any future sanctions.

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Wray said western companies should learn from the crisis too, adding that if China took Taiwan it would represent "one of the most horrific business disruptions the world has ever seen".

He said western companies needed to act now to "prevent catastrophe later", or they would lose out on billions of dollars due to the fallout as the world turned its back on Beijing.

Together they gave their starkest warning yet about China's hostile activities in the UK and the US.

Their speeches at Thames House, MI5's London headquarters, marked the first time the two security chiefs have shared a public platform.

They warned that the Chinese Communist Party was "applying covert pressure across the globe" and posed the "biggest long-term threat to our economic and national security".

Wray said the scale of China's efforts to steal intellectual property, technology and secrets was "breathtaking and unparalleled".

He said the tempo of the operations being carried out by Beijing and its proxies had been "blistering for quite some time", adding that a new case was opened in the US every 12 hours.

"China has for too long counted on being everybody's second highest priority," he said, but they would no longer "fly under the radar".

He said China had been watching the Ukraine crisis unfold and was "looking for ways to insulate their economy against potential sanctions, trying to cushion themselves from harm if they do anything to draw the ire of the international community". He added: "In our world, we call that kind of behaviour a clue."

Military leaders have warned that China is preparing for an invasion of Taiwan, although some experts believe Beijing may have been deterred by seeing the impact on Russia of its invasion of Ukraine.

Wray said he had no reason to believe that China's interest in taking Taiwan had abated and instead warned western companies to prepare for the eventuality, suggesting they reduce their reliance on Chinese businesses for lucrative deals and partnerships.

Western companies lost \$59 billion when Russia invaded Ukraine, he said, and if China invaded Taiwan "we could see the same thing again, at a much larger scale".

"China poses a far more complex and pervasive threat to businesses than even the most sophisticated company leaders realise," he said.

Outlining plans under way in MI5 to step up its focus on Chinese activities, McCallum said that the agency had already doubled its efforts since about 2018 and would hope to double them again in a "handful" of years.

MI5 investigations into Chinese activity include the disruption of a "sophisticated" threat targeting critical aerospace companies in May.

The agency also issued an espionage alert on an individual working in think tanks and academia who was in regular contact with Chinese intelligence officers, McCallum said.

<https://www.thetimes.co.uk/article/chinese-spying-investigations-up-sevenfold-mi5-warns-b7p65xmjw>

Heads of MI5, FBI give joint warning of growing threat from China

Senate Homeland Security and Governmental Affairs Committee hearing on security threats 20 years after 9/11, in Washington

Thu, July 7, 2022 at 5:55 AM · 2 min read

In this article:

Christopher A. Wray American lawyer, and current director of the U.S. Federal Bureau of Investigation

Ken McCallum Director General of MI5

By Juby Babu

<https://news.yahoo.com/heads-mi5-fbi-joint-warning-045519597.html>

(Reuters) - The heads of MI5 and FBI warned of the growing long-term threat posed by China to UK and U.S. interests, in their first joint appearance on Wednesday.

MI5 Director General Ken McCallum said the service has already "more than doubled our previously-constrained effort against Chinese activity of concern," adding it was running seven times as many investigations as in 2018.

FBI Director Christopher Wray said that the Chinese government "poses the biggest long-term threat" to economic and national security, for the UK, the U.S. and allies in Europe and elsewhere.

"The Chinese government is trying to shape the world by interfering in our politics (and those of our allies, I should add)," Wray said, saying Beijing had directly interfered in a Congressional election in New York this year, as it did not want a candidate who was a critic and former protester at Tiananmen Square to be elected.

Wray warned that the Chinese government "poses an even more serious threat to Western businesses than even many sophisticated businesspeople realize," and is "set on stealing your technology."

The Chinese government's hacking program is "bigger than that of every other major country combined," according to Wray.

Over the past year, the UK has shared intelligence with 37 countries to help them defend against cyber espionage, McCallum said, adding that in May they had disrupted a sophisticated threat targeting critical aerospace companies.

Speaking about Taiwan, which China regards as a province, Wray said that China may try to forcibly take it over and if that were to happen, "it would represent one of the most horrific business disruptions the world has ever seen."

"The widespread Western assumption that growing prosperity within China and increasing connectivity with the West would automatically lead to greater political freedom has, I'm afraid, been shown to be plain wrong," McCallum said.

"The allegations against China by U.S. and UK intelligence officials are completely groundless and the so-called cases they listed are pure shadow chasing," a spokesperson for the Chinese embassy in the UK said, in response to a question about the comments made by McCallum and Wray.

The spokesperson said that China urged both the countries to "have a clear understanding of the trend of the time, abandon the Cold War mentality which has long gone out of date, stop spreading "China threat", and stop creating confrontation and conflicts."

Speaking at MI5 headquarters in Thames House, London, both the security services heads gave numerous examples of issues linked to China, asking an audience which included businessmen and academics to be cautious and encouraging them to partner with the FBI and MI5 so they can have the appropriate intelligence about this threat.

(Reporting by Juby Babu in Bengaluru; Editing by Kim Coghill)

<https://news.yahoo.com/heads-mi5-fbi-joint-warning-045519597.html>

50 Chinese students leave UK in three years after spy chiefs' warning

MI5 chief says Chinese communist party targeting intellectual property across west

Dan Sabbagh Defence and security editor

Wed 6 Jul 2022 17.10 BST

https://www.theguardian.com/uk-news/2022/jul/06/50-chinese-students-leave-uk-in-three-years-after-spy-chiefs-warning?CMP=Share_AndroidApp_Other

Fifty Chinese students have left the UK in the past three years after Britain tightened its procedures to prevent the theft of sensitive academic research, the head of MI5 said in a speech about the espionage threat posed by Beijing.

Ken McCallum, the director general of the spy agency, also said that MI5 had "more than doubled" its effort against Chinese activity over the same timeframe, as part of an unprecedented joint warning with his counterpart at the FBI.

The British spy chief said the "most gamechanging challenge" MI5 faced came from an "increasingly authoritarian Chinese Communist party" that was heavily targeting industrial secrets and intellectual property across the west.

A particular focus on Chinese state activity was western universities, McCallum said, and after a reform of the Academic Technology Approval Scheme (ATAS), "over 50" students linked to the People's Liberation Army had left the UK.

The scheme, run by the British government, applies to international students from China and other countries subject to immigration control, who want to engage in research on military technology or other subjects deemed to be sensitive.

The spy chief did not provide further details about the Chinese students who had left, a fraction of the 150,000 that study in the UK, but it formed part of a wider warning about Beijing's espionage activities aimed primarily at universities, military and hi-tech businesses and related organisations.

McCallum was standing alongside Christopher Wray, the director of the US FBI, who warned that "we consistently see that it is the Chinese government that poses the biggest long-term threat to our economic and national security".

It was a threat that was "more serious" than "even many sophisticated businesspeople realise," Wray said. The US agency was opening one China related investigation every 12 hours, a level of activity that had increased by 1,300% over the past seven years, the FBI chief added.

The MI5 chief said the agency was running "seven times" as many China-related investigations as it was in 2018 – reflecting both a growing threat and an increased focus on hostile activity from Beijing. McCallum said MI5 expected to double its China-related activities over the next three years.

Western spy agencies have been rapidly switching their focus from Islamist terrorism since the death of Islamic State leader Abu Bakr al-Baghdadi in 2019 to hostile state activity, primarily from both China and Russia.

Although the invasion of Ukraine has emphasised the security threat posed by Russia, US and UK agencies want to remain focused on Beijing. "The Chinese government is set on stealing your technology ... and using it to undercut your business and dominate your market," Wray said.

McCallum added that China's "scale of ambition is huge" and that Beijing was focused on "areas of core technology where it would otherwise be impossible for China to catch up with the west by 2050". Artificial intelligence was a particular area of interest to China, the head of the domestic spy agency added.

China's efforts to interfere with political processes in the west were not as extensive as its economic efforts, the spy chiefs said. But McCallum said there were "growing indicators" of attempts at political interference in the UK – referring to the case of Christine Lee, who MI5 says sought to improperly influence MPs and peers on behalf of the communist party.

https://www.theguardian.com/uk-news/2022/jul/06/50-chinese-students-leave-uk-in-three-years-after-spy-chiefs-warning?CMP=Share_AndroidApp_Other

China lashes out at US, British intelligence services

<https://apnews.com/article/nato-g-20-summit-technology-china-united-states-4199c8d318234390e7cd6767eb2135bd>

BEIJING (AP) — The United States is "the biggest threat to world peace, stability and development," China said Thursday, continuing its sharp rhetoric in response to U.S. accusations of Chinese spying and threats to the international order.

Foreign Ministry spokesperson Zhao Lijian's comments came a day after the head of the FBI and the leader of Britain's domestic intelligence agency raised fresh alarms about the Chinese government, warning business leaders that Beijing is determined to steal their technology for competitive gain.

The heightened tone comes ahead of a meeting Saturday between U.S. Secretary of State Antony Blinken and Chinese Foreign Minister Wang Yi at the Group of 20 leading rich and developing nations' ministers summit in Bali, Indonesia.

"The relevant U.S. politician has been playing up the so-called China threat to smear and attack China," Zhao told reporters at a daily briefing when asked about FBI Director Christopher Wray's comments reaffirming longstanding concerns in denouncing economic espionage and hacking operations by China as well as the Chinese government's efforts to stifle dissent abroad.

"Facts have fully proven that the U.S. is the biggest threat to world peace, stability and development," Zhao said. "We urge this U.S. official to have the right perspective, see China's developments in an objective and reasonable manner and stop spreading lies and stop making irresponsible remarks."

Wray's speech was particularly notable because it took place at MI5's London headquarters and alongside the agency's director general, Ken McCallum, in an intended show of Western solidarity.

"We consistently see that it's the Chinese government that poses the biggest long-term threat to our economic and national security, and by 'our,' I mean both of our nations, along with our allies in Europe and elsewhere," Wray told attendees.

McCallum said the Chinese government and its "covert pressure across the globe" amounts to "the most game-changing challenge we face."

Under Xi Jinping, president and head of the ruling Communist Party, China has assumed an increasingly aggressive foreign policy, joining with Russia in seeking to undermine the influence of the U.S. and its allies.

Beijing has refused to condemn Russia's invasion of Ukraine — which is expected to dominate the G-20 foreign ministers meeting — while condemning Western sanctions against Moscow and accusing Washington and NATO of provoking the conflict.

At the same time, the party exercises sweeping powers over all Chinese companies and institutions, both public and private, as it seeks to dominate global markets and emerging technologies.

The Chinese government and its "covert pressure across the globe" amounts to "the most game-changing challenge we face," McCallum said in his Wednesday remarks.

In his response, Zhao said British intelligence was "simply projecting their own dishonorable behavior onto China."

"The head of the British intelligence service should cast away (his) evil in mind, come out of the dark room and see the sunshine, and not always hold on to the zero-sum thinking or set up so-called imaginary enemies," he said.

Zhao on Wednesday slammed Blinken's comments at last week's NATO summit in Spain, in which the Secretary of State accused China of "seeking to undermine the rules-based international order."

<https://apnews.com/article/nato-g-20-summit-technology-china-united-states-4199c8d318234390e7cd6767eb2135bd>

CNN Exclusive: FBI investigation determined Chinese-made Huawei equipment could disrupt US nuclear arsenal communications

By Katie Bo Lillis

Updated 0401 GMT (1201 HKT) July 23, 2022

<https://edition.cnn.com/2022/07/23/politics/fbi-investigation-huawei-china-defense-department-communications-nuclear/index.html>

Washington (CNN)On paper, it looked like a fantastic deal. In 2017, the Chinese government was offering to spend \$100 million to build an ornate Chinese garden at the National Arboretum in Washington DC. Complete with temples, pavilions and a 70-foot white pagoda, the project thrilled local officials, who hoped it would attract thousands of tourists every year.

But when US counterintelligence officials began digging into the details, they found numerous red flags. The pagoda, they noted, would have been strategically placed on one of the highest points in Washington DC, just two miles from the US Capitol, a perfect spot for signals intelligence collection, multiple sources familiar with the episode told CNN.

Also alarming was that Chinese officials wanted to build the pagoda with materials shipped to the US in diplomatic pouches, which US Customs officials are barred from examining, the sources said.

Federal officials quietly killed the project before construction was underway.

The canceled garden is part of a frenzy of counterintelligence activity by the FBI and other federal agencies focused on what career US security officials say has been a dramatic escalation of Chinese espionage on US soil over the past decade.

Since at least 2017, federal officials have investigated Chinese land purchases near critical infrastructure, shut down a high-profile regional consulate believed by the US government to be a hotbed of Chinese spies and stonewalled what they saw as clear efforts to plant listening devices near sensitive military and government facilities.

Among the most alarming things the FBI uncovered pertains to Chinese-made Huawei equipment atop cell towers near US military bases in the rural Midwest. According to multiple sources familiar with the matter, the FBI determined the equipment was capable of capturing and disrupting highly restricted Defense Department communications, including those used by US Strategic Command, which oversees the country's nuclear weapons. While broad concerns about Huawei equipment near US military installations have been well known, the existence of this investigation and its findings have never been reported. Its origins stretch back to at least the Obama administration. It was described to CNN by more than a dozen sources, including current and former national security officials, all of whom spoke on condition of anonymity because they were not authorized to speak publicly.

It's unclear if the intelligence community determined whether any data was actually intercepted and sent back to Beijing from these towers. Sources familiar with the issue say that from a technical standpoint, it's incredibly difficult to prove a given package of data was stolen and sent overseas.

The Chinese government strongly denies any efforts to spy on the US. Huawei in a statement to CNN also denied that its equipment is capable of operating in any communications spectrum allocated to the Defense Department.

But multiple sources familiar with the investigation tell CNN that there's no question the Huawei equipment has the ability to intercept not only commercial cell traffic but also the highly restricted airwaves used by the military and disrupt critical US Strategic Command communications, giving the Chinese government a potential window into America's nuclear arsenal.

"This gets into some of the most sensitive things we do," said one former FBI official with knowledge of the investigation. "It would impact our ability for essentially command and control with the nuclear triad. That goes into the 'BFD' category."

"If it is possible for that to be disrupted, then that is a very bad day," this person added.

Turning doves into hawks

Former officials described the probe's findings as a watershed moment. The investigation was so secret that some senior policymakers in the White House and elsewhere in government weren't briefed on its existence until 2019, according to two sources familiar with the matter.

That fall, the Federal Communications Commission initiated a rule that effectively banned small telecoms from using Huawei and a few other brands of Chinese made-equipment. "The existence of the investigation at the highest levels turned some doves into hawks," said one former US official.

In 2020, Congress approved \$1.9 billion to remove Chinese-made Huawei and ZTE cellular technology across wide swaths of rural America.

But two years later, none of that equipment has been removed and rural telecom companies are still waiting for federal reimbursement money. The FCC received applications to remove some 24,000 pieces of Chinese-made communications equipment—but according to a July 15 update from the commission, it is more than \$3 billion short of the money it needs to reimburse all eligible companies.

Absent more money from Congress, the FCC says it plans to begin reimbursing approved companies for about 40 percent of the costs of removing Huawei equipment. The FCC did not specify a timeframe on when the money will be disbursed.

In late 2020, the Justice Department referred its national security concerns about Huawei equipment to the Commerce Department, and provided information on where the equipment was in place in the US, a former senior US law enforcement official told CNN.

After the Biden administration took office in 2021, the Commerce Department then opened its own probe into Huawei to determine if more urgent action was needed to expunge the Chinese technology provider from US telecom networks, the former law enforcement official and a current senior US official said.

That probe has proceeded slowly and is ongoing, the current US official said. Among the concerns that national security officials noted was that external communication from the Huawei equipment that occurs when software is updated, for example, could be exploited by the Chinese government.

Depending on what the Commerce Department finds, US telecom carriers could be forced to quickly remove Huawei equipment or face fines or other penalties.

Reuters first reported the existence of the Commerce Department probe.

"We cannot confirm or deny ongoing investigations, but we are committed to securing our information and communications technology and services supply chain. Protecting US persons safety and security against malign information collection is vital to protecting our economy and national security," a Commerce Department spokesperson said.

US counterintelligence officials have recently made a priority of publicizing threats from China. This month, the US National Counterintelligence and Security Center issued a warning to American businesses and local and state governments about what it says are disguised efforts by China to manipulate them to influence US policy.

FBI Director Christopher Wray just traveled to London for a joint meeting with top British law enforcement officials to call attention to the Chinese threats.

In an exclusive interview with CNN, Wray said the FBI opens a new China counterintelligence investigation every 12 hours. "That's probably about 2,000 or so investigations," said Wray. "And that's not even talking about their cyber theft, where they have a bigger hacking program than that of every other major nation combined, and have stolen more of Americans' personal and corporate data than every nation combined."

Asked why after years of national security concerns raised over Huawei, the equipment is still largely in place atop cell towers near US military bases, Wray said that, "We're concerned about allowing any company that is beholden to a nation state that doesn't adhere to and share our values, giving that company the ability to burrow into our telecommunications infrastructure."

He noted that in 2020, the DOJ indicted Huawei with racketeering conspiracy and conspiracy to steal trade secrets.

"And I think that's probably about all I can say on the topic," said Wray.

Critics see xenophobic overreach

Despite its tough talk, the US government's refusal to provide evidence to back up its claims that Huawei tech poses a risk to US national security has led some critics to accuse it of xenophobic overreach. The lack of a smoking gun also raises questions of whether US officials can separate legitimate Chinese investment from espionage.

"All of our products imported to the US have been tested and certified by the FCC before being deployed there," Huawei said in its statement to CNN. "Our equipment only operates on the spectrum allocated by the FCC for commercial use. This means it cannot access any spectrum allocated to the DOD."

"For more than 30 years, Huawei has maintained a proven track record in cyber security and we have never been involved in any malicious cyber security incidents," the statement said.

In its zeal to sniff out evidence of Chinese spying, critics argue the feds have cast too wide a net — in particular as it relates to academic institutions. In one recent high-profile case, a federal judge acquitted a former University of Tennessee engineering professor whom the Justice Department had prosecuted under its so-called China Initiative that targets Chinese spying, arguing "there was no evidence presented that [the professor] ever collaborated with a Chinese university in conducting NASA-funded research."

And on Jan. 20, the Justice Department dropped a separate case against an MIT professor accused of hiding his ties to China, saying it could no longer prove its case. In February, the Biden administration shut down the China Initiative entirely.

The federal government's reticence across multiple administrations to detail what it knows has led some critics to accuse the government of chasing ghosts.

"It really comes down to: do you treat China as a neutral actor — because if you treat China as a neutral actor, then yeah, this seems crazy, that there's some plot behind every tree," said Anna Puglisi, a senior fellow at Georgetown University's Center for Security and Emerging Technology. "However, China has shown us through its policies and actions it is not a neutral actor."

Chinese tech in the American heartland

As early as the Obama administration, FBI agents were monitoring a disturbing pattern along stretches of Interstate 25 in Colorado and Montana, and on arteries into Nebraska. The heavily trafficked corridor connects some of the most secretive military installations in the US, including an archipelago of nuclear missile silos.

For years, small, rural telecom providers had been installing cheaper, Chinese-made routers and other technology atop cell towers up and down I-25 and elsewhere in the region. Across much of these sparsely populated swaths of the west, these smaller carriers are the only option for cell coverage. And many of them turned to Huawei for cheaper, reliable equipment.

Beginning in late 2011, Viera, the largest regional provider in the area, inked a contract with Huawei to provide the equipment for its upgrade to 3G. A decade later, it has Huawei tech installed across its entire fleet of towers, roughly 1,000 spread over five western states.

As Huawei equipment began to proliferate near US military bases, federal investigators started taking notice, sources familiar with the matter told CNN. Of particular concern was that Huawei was routinely selling cheap equipment to rural providers in cases that appeared to be unprofitable for Huawei — but which placed its equipment near military assets.

Federal investigators initially began "examining [Huawei] less from a technical lens and more from a business/financial view," explained John Lenkart, a former senior FBI agent focused on counterintelligence issues related to China. Officials studied where Huawei sales efforts were most concentrated and looked for deals that "made no sense from a return-on-investment perspective," Lenkart said.

"A lot of [counterintelligence] concerns were uncovered based on" those searches, Lenkart said.

By examining the Huawei equipment themselves, FBI investigators determined it could recognize and disrupt DOD-spectrum communications — even though it had been certified by the FCC, according to a source familiar with the investigation.

"It's not technically hard to make a device that complies with the FCC that listens to nonpublic bands but then is quietly waiting for some activation trigger to listen to other bands," said Eduardo Rojas, who leads the radio spectrum lab at Embry-Riddle Aeronautical University in Florida. "Technically, it's feasible." To prove a device had clandestine capabilities, Rojas said, would require technical experts to strip down a device "to the semi-conductor level" and "reverse engineer the design." But, he said, it can be done.

And there was another big concern along I-25, sources familiar with the investigation said.

Weather camera worries

Around 2014, Viera started mounting high-definition surveillance cameras on its towers to live-stream weather and traffic, a public service it shared with local news organizations. With dozens of cameras posted up and down I-25, the cameras provided a 24-7 bird's eye view of traffic and incoming weather, even providing advance warning of tornadoes.

But they were also inadvertently capturing the movement of US military equipment and personnel, giving Beijing — or anyone for that matter — the ability to track the pattern of activity between a series of closely guarded military facilities.

The intelligence community determined the publicly posted live-streams were being viewed and likely captured from China, according to three sources familiar with the matter. Two sources briefed on the investigation at the time said officials believed that it was possible for Beijing's intelligence service to "task" the cameras — hack into the network and control where they pointed. At least some of the cameras in question were running on Huawei networks.

Viera CEO Frank DiRico said it never occurred to him the cameras could be a national security risk.

"There's a lot of missile silos in areas we cover. There is some military presence," DiRico said in an interview from his Colorado office. But, he said, "I was never told to remove the equipment or to make any changes."

In fact, DiRico first learned of government concerns about Huawei equipment from newspaper articles — not the FBI — and says he has never been briefed on the matter.

DiRico doesn't question the government's insistence that he needs to remove Huawei equipment, but he is skeptical that China's intelligence services can exploit either the Huawei hardware itself or the camera equipment.

"We monitor our network pretty good," DiRico said, adding that Viera took over the support and maintenance for its own networks from Huawei shortly after installation. "We feel we've got a pretty good idea if there's anything going on that's inappropriate."

Scouring the country for Chinese investments

By the time the I-25 investigation was briefed to the White House in 2019, counterintelligence officials began looking for other places Chinese companies might be buying land or offering to develop a piece of municipal property, like a park or an old factory, sometimes as part of a "sister city" arrangement.

In one instance, officials shut down what they believed was a risky commercial deal near highly sensitive military testing installations in Utah sometime after the beginning of the I-25 investigation, according to one former US official. The military has a test and training range for hypersonic weapons in Utah, among other things. Sources declined to provide more details.

Federal officials were also alarmed by what sources described as a host of espionage and influence activities in Houston and, in 2020, shut down the Chinese consulate there.

US Attorney for the Eastern District of New York Richard P. Donoghue announcing indictments against China's Huawei Technologies Co Ltd, several of its subsidiaries and its chief financial officer Meng Wanzhou on January 28, 2019.

Bill Evanina, who until early last year ran the National Counterintelligence and Security Center, told CNN that it can sometimes be hard to differentiate between a legitimate business opportunity and espionage — in part because both might be happening at the same time.

"What we've seen is legitimate companies that are three times removed from Beijing buy [a given] facility for obvious logical reasons, unaware of what the [Chinese] intelligence apparatus wants in that parcel [of land]," Evanina said. "What we've seen recently — it's been what's underneath the land."

"The hard part is, that's legitimate business, and what city or town is not going to want to take that money for that land when it's just sitting there doing nothing?" he added.

A complicated problem

After the results of the I-25 investigation were briefed to the Trump White House in 2019, the FCC ordered that telecom companies who receive federal subsidies to provide cell service to remote areas — companies like Viera — must "rip and replace" their Huawei and ZTE equipment.

The FCC has since said that the cost could be more than double the \$1.9 billion appropriated in 2020 and absent an additional appropriation from Congress, the agency is only planning to reimburse companies for a fraction of their costs.

Given the staggering strategic risk, Lenkart said, "rip and replace is a very blunt and inefficient remediation."

DiRico, the CEO of Viera, said the cost of "rip and replace" is astronomical and that he doesn't expect the reimbursement money to be enough to pay for the change. According to the FCC, Viera is expected to receive less than half of the funding it is actually due. Still, he expects to start removing the equipment within the next year.

"It's difficult and it's a lot of money," DiRico said.

Some former counterintelligence officials expressed frustration that the US government isn't providing more granular detail about what it knows to companies — or to cities and states considering a Chinese investment proposal. They believe that not only would that kind of detail help private industry and state and local governments understand the seriousness of the threat as they see it, but also help combat the criticism that the US government is targeting Chinese companies and people, rather than Chinese state-run espionage.

"This government has to do a better job of letting everyone know this is a Communist Party issue, it's not a Chinese people issue," Evanina said. "And I'll be the first to say that the government has to do better with respect to understanding the Communist Party's intentions are not the same intentions of the Chinese people."

A current FBI official said the bureau is giving more defensive briefings to US businesses, academic institutions and state and local governments that include far more detail than in the past, but officials are still fighting an uphill battle.

"Sometimes I feel like we're a lifeguard going out to a drowning person, and they don't want our help," said the current FBI official. But, this person said, "I think sometimes we [the FBI] say 'China threat,' and we take for granted what all that means in our head. And it means something else to the people that we're delivering it to."

"I think we just need to be more careful about how we speak about it and educate folks on why we're doing what we're doing." In the meantime, the "rip and replace" program has remained fiercely controversial.

<https://edition.cnn.com/2022/07/23/politics/fbi-investigation-huawei-china-defense-department-communications-nuclear/index.html>

Many thanks to SOE for sending in; an excellent and intuitive article!

High-tech lasers will help first British satellite track others

The Times 4 Jul 2022

Rhys Blakely

<https://www.thetimes.co.uk/article/lasers-to-help-british-satellite-keep-its-friends-from-crashing-gx5f9mmtv>

An ultra-accurate system for tracking objects in space will be tested as part of the first satellite launch from British soil this summer.

The technology, developed by the British start-up Lumi Space, is expected to be hundreds of times more precise than current methods.

It is designed to help avoid collisions amid a surge in the number of satellites being placed in orbit. A test version will be attached to a small satellite built in

Wales by Space Forge, a company that ultimately hopes to build an armada of factories in space to produce materials that cannot be created on Earth.

The Space Forge satellite is due to be launched, with several others, on a rocket expected to take off from Newquay airport in Cornwall in September.

The technology involves beaming pulses of laser light from Earth towards the object being tracked. It must be fitted with a device known as a retroreflector, which bounces the light back to its source. By measuring the time the laser takes to travel to the satellite and back and by sending several pulses as it passes overhead, it is possible to calculate its course.

Retroreflectors placed on the moon by the Apollo missions in the Sixties and Seventies have been used to precisely measure its distance from Earth. They have also been used to keep track of Nasa satellites.

Lumi Space is working on a cheaper version of the technology, which will be the first to be made available to private space companies. The laser beam must be pointed from the Earth with an accuracy of two arcseconds — the equivalent of hitting a bus that is parked at Land's End, while sitting in John o' Groats.

Meanwhile, the satellite will be travelling at nearly 8km per second. At a range of 300km, the light returns after two milliseconds. By tracking the satellite as it passes, it is possible to trace its trajectory with a level of accuracy not possible using other techniques.

Hira Virdee, of Lumi Space, said: "This gives us information on the location of objects in space that's 500 times to 1,000 times more accurate than other sources of information. This really is the gold standard of space situational awareness."

Ian Annett, of the UK Space Agency, said: "Britain is leading the way in the sustainable use of space so it is fantastic to see two innovative UK companies working together to put satellite tracking at the heart of Space Forge's operations. We are on the cusp of a historic moment, with the first satellite launch from UK soil set to unleash a new wave of innovation."

<https://www.thetimes.co.uk/article/lasers-to-help-british-satellite-keep-its-friends-from-crashing-gx5f9mmtv>

Crumbling coast fear means Norfolk's 'golf ball' radar must be moved

Author Picture Icon

Dan Grimmer

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https://www.edp24.co.uk/news/local-council/trimingham-golf-ball-radar-to-be-moved-9120878?utm_source=Newsletter&utm_medium=Email&utm_campaign=DM60576

The distinctive 'golf ball' radar station on the north Norfolk coast will be relocated to a new inland site within the next year, because military chiefs fear it could fall into the sea.

Concerns over a potential cliff collapse at Trimingham means the Ministry of Defence (MoD) will be packing up the system there and moving it to a new home eight miles from the coast, at Neatishead, which was previously home to a major radar base.

The move is expected to be completed by the end of 2023.

The Trimingham site, run by the RAF, is a vital part of the UK's air defence system, giving advanced warning of any aerial threat approaching the UK.

Its significance has increased in recent months as tensions with Russia have risen, following its invasion of Ukraine.

But the radar - which has become a familiar regional landmark - is on one of the stretches of coast most vulnerable to erosion.

In 2020, a cliff collapse saw tonnes of sand and silt plummet on to the beach and sea from the Trimingham House Caravan Park - less than a mile away from the station, which is known officially as Remote Radar Head Trimingham.

While the decision to remove the structure is primarily down to the threat of coastal erosion, military experts have also been concerned that the station faces increasing interference from the growing number of wind turbines off the Norfolk coast, which make it harder to identify potential threats.

In 2017, the MoD warned that new turbines at Swedish firm Vattenfall's Boreas wind farm, off Norfolk, would have a 'significant and detrimental' impact on Remote Radar Head Trimingham.

MoD operators use the radar to create what they call a 'recognised air picture' of aircraft movements so they can defend the country.

And they say the offshore turbines can "cause unacceptable and unmanageable interference to the effective operation of this air defence radar".

The MoD says the turbines create "clutter" on the operators' display.

The MOD says mitigation is needed to stop wind farms interfering with radar - Credit: Mike Page

The move to Neatishead - where the MoD already owns land - will not solve this problem, as the radar will still be within the line of sight of the Boreas turbines.

Military experts have been trying to find ways to reduce the interference from the wind farm.

In the past, defence chiefs have found ways to mitigate the adverse impact of turbines, by reaching agreements with developers.

Examples of mitigation include 'blanking' radar returns from turbines, so they do not show up on operators' screens, and providing extra radars to 'infill' missing information from those areas.

But experts say the next generation of wind farms will be larger, in both height and area, so previously used methods will not be enough.

The government, MoD and wind farm companies have been working to come up with solutions to that issue.

A series of 'real life' tests of different sorts of radar has been carried out, with various types of planes flying close to wind farm areas.

An MoD spokesperson said: "Wind farms support the UK's clean energy ambition and we are committed to working across government and with industry to mitigate any impacts from air traffic control and defence radar."

Dujon Goncalves-Collins, Vattenfall's senior strategy advisor for aviation, defence and radar, said: "Vattenfall is working closely with the MoD to ensure that the new radar station at Neatishead will not be adversely affected by the operations of Norfolk Boreas."

Vattenfall is also behind the Vanguard wind farm, while other major wind projects include Erinor's plans to double the size of the Sheringham Shoal and Dudgeon schemes. Danish firm Ørsted is also working on the Hornsea Three development.

A radar station was first established at Trimingham by the British Army in 1941 to detect German E-boats and low flying aircraft during the Second World War.

It was transferred to the Air Ministry in 1942, but stopped being used in 1948.

However, it was reactivated a year later and RAF Trimingham saw various radar installed in the subsequent years.

It was mothballed in 1964 and was then largely dismantled before closing in 1981.

But the Ministry of Defence then bought it back a few years later, and the 'golf ball' dome surrounding the radar equipment was installed.

Various radars - including one which used to be at a now closed military base in Hopton - have been housed there.

In 2006, an investigation was carried out after drivers reported their cars suffered electrical problems when passing the dome.

The MoD confirmed problems had been caused by its equipment.

The impending move to Neatishead gives fresh purpose to a site which operated as a radar centre during the Second World War.

In the 1960s the base was engulfed by tragedy when a fire was started at the site, which led to the death of three local firefighters.

The station remained closed for eight years and it reopened in 1974, after major rebuilding work.

By 2006 it was downgraded to Remote Radar Head status, with the RAF having sold much of the site, which also includes a radar museum.

https://www.edp24.co.uk/news/local-council/trimingham-golf-ball-radar-to-be-moved-9120878?utm_source=Newsletter&utm_medium=Email&utm_campaign=DM60576

This is worth downloading for the imagery too [Thanks to member who sent in]

GCHQ experts set out how to tackle online child sexual abuse despite end-to-end encryption

A new paper written by two trained mathematicians and career intelligence officers proposes a scientific way to tackle child sexual abuse as it occurs online.

Alexander Martin

<https://news.sky.com/story/gchq-experts-set-out-how-to-tackle-online-child-sexual-abuse-despite-end-to-end-encryption-12655936?s=09>

Thursday 21 July 2022 02:43, UK

Two senior technical directors at GCHQ, the UK's cyber intelligence agency, have published a new paper analysing how technology companies could protect children from sexual abuse online.

The impact of child sexual abuse can last a lifetime even if the abuse takes place online. Research by the Independent Inquiry into Child Sexual Abuse found survivors often suffer serious physical and mental health conditions in later life.

One of the challenges in tackling this online abuse is the growing number of services offering end-to-end encryption, technology which often undermines the existing safety features that many companies use to detect child sexual abuse material.

But without using end-to-end encryption, any hacker or even lawful authority - and perhaps even workers at the messaging company - who could access the service's internal controls would be able to read those messages.

They describe seven "harm archetypes" to frame the problem in a new way, covering everything from children being groomed by offenders through to adults sharing indecent images of children out of shock, and note how each of these harmful behaviours has a particular technical profile that can be addressed in a specific way.

'Child sexual abuse is a societal problem'

In particular it recommends revisiting a recent controversial proposal by Apple of pre-emptively scanning all iPhones for child sexual abuse material (CSAM) as a potential solution to some harms, if it were architected properly to protect against others.

Chief among the fears of academics and security experts was that Apple's system could be modified to search for non-CSAM images that may be of interest to government authorities. The company subsequently indefinitely delayed the proposal.

Although the 67-page document is not meant to represent British government policy the authors acknowledge hoping to help develop policy about tackling online abuse on a global basis.

It is published as the government's Online Safety Bill faces an extensive delay due in part to criticisms about its unscientific approach to defining the harms that internet users can experience online.

The paper was completed long before the delay to the bill was announced.

It comes as the government proposes including an amendment which will give regulators the power to force technology companies to stop sexual abuse of children on their platforms.

Dr Levy and Mr Robinson write: "Child sexual abuse is a societal problem that was not created by the internet and combating it requires an all-of-society response.

"However, online activity uniquely allows offenders to scale their activities, but also enables entirely new online-only harms, the effects of which are just as catastrophic for the victims," they add.

"We hope this paper will help the debate around combating child sexual abuse on end-to-end encrypted services, for the first time setting out clearly the details and complexities of the problem."

'Barriers to child protection are not technical'

The authors say that the problem is "much more complex than other government needs, such as exceptional access" in reference to a previous collaboration in 2018.

Then the pair wrote an article published in Lawfare, a popular US blog about national security, calling for a "more informed" debate about end-to-end encryption and the "exceptional access" that law enforcement might need to those services.

They proposed as a solution at the time secretly introducing another end to these messaging services, ensuring that law enforcement could access the communications.

It was only a hypothetical proposal, but it proved extremely controversial and has not been adopted by most platforms that offer end-to-end encryption.

It successfully provoked dozens of high-profile articles discussing the merits of the idea, from academia, civil society, and industry - although most of them were critical and did not offer any solutions to the problem described.

The authors hope their new paper invites more constructive engagement.

Andy Burrows, who heads child safety online policy at the NSPCC, described the paper as an "important and highly credible intervention" which "breaks through the false binary that children's fundamental right to safety online can only be achieved at the expense of adult privacy.

"The report demonstrates it will be technically feasible to identify child abuse material and grooming in end-to-end encrypted products. It's clear that barriers to child protection are not technical, but driven by tech companies that don't want to develop a balanced settlement for their users.

"The Online Safety Bill is an opportunity to tackle child abuse taking place at an industrial scale. Despite the breathless suggestions that the Bill could 'break' encryption, it's clear that legislation can incentivise companies to develop technical solutions and deliver safer and more private online services."

<https://news.sky.com/story/gchq-experts-set-out-how-to-tackle-online-child-sexual-abuse-despite-end-to-end-encryption-12655936?s=09>

Morse Stations

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

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

Morse - Number Stations

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

First noted in July 2021 is the occasional change to the ending where 0.0.0. is sent using periods or random 'series of 'dits' in place of the usual 000. Also of note is the tendency to omit the == pair at the end of the message on numerous occasions.

Continuing with change of frequency from 4905kHz to 4903kHz for 2000z schedules.

July 2022:

4903	2000z	05 Jul	'025' 724 30 == 64328 ... 95843 ==	Fair, fast. No errors. Many grps beginning 47 or 74	BR	TUE
	2000z	07 Jul	'025' 823 30 == 18392 ... 17381 ==	Fair, fast. Grp03 01736 0736. Possibly other errors	BR	THU
	2000z	12 Jul	'025' 564 30 17391 ... 89329	Strong, med-fast. Start & ending changed & == omitted	BR	TUE
	2000z	14 Jul	'025' 835 30 == 15234 ... 80176 ==	Good, fast. Excellent Morse. Corrected error grp10	BR	THU
	2000z	19 Jul	'025' 134 30 == 71926 ... 10271 ==	Good, fast. No errors. Many grps beginning 17 & 18	BR	TUE
	2000z	21 Jul	'025' 405 30 == 82367 ... 32465 ==	Good, fast. Grps01-11 & 22-30 excellent, rest confusing	BR	THU
	2000z	23 Jul	'025' 391 30 == 29847 ... 75843 ==	Fair, fast. Excellent Morse. Errors grps01 & 19	BR	TUE
	2000z	28 Jul	'025' 275 30 17427 ... 95410	Good, slow. Single-carrier Tx used. == omitted from msg	BR	THU
5280	1800z	07 Jul	'025' 758 30 == 73648 ... 18475 ==	Weak, fast. Poor copy. Some incomplete repeat grps	BR	THU
	1800z	14 Jul	'025' Very weak. No useful copy		BR	THU
	1800z	19 Jul	'025' Very weak. No useful copy		BR	TUE
	1800z	21 Jul	'025' Weak / Very weak. No useful copy		BR	THU
	1800z	28 Jul	NRH		BR	THU
6435	1500z	09 Jul	'025' 256 30 28395 ... 89267 ==	Fair/Good with QSB. Fast delivery. Starting == omitted	BR	SAT

August 2022:

4903	2000z	02 Aug	'025' 528 30 01427 ... 95631	Fair with QSB. Slow- med-fast. No errors. == omitted	BR	TUE
	2000z	04 Aug	'025' 845 30 == 03847 ... 57381 ==	Strong, slow. Excellent Morse. No errors.	BR	THU
	2000z	09 Aug	'025' 911 30 == 01928 ... 78450 ==	Fair, fast. Excellent Morse. Errors noted from grp24	BR	TUE
	2000z	11 Aug	'025' 759 30 == 38475 ... 32764 ==	Fair, fast. Excellent Morse. Corrected error grp24	BR	THU
	2000z	18 Aug	'025' 322 30 93512 ... 03221	Strong, med-fast. Several single-fig errors noted. == omitted	BR	THU
	2000z	23 Aug	'025' 374 30 == 74364 ... 86785 ==	Strong, V.fast. Excellent Morse. Several errors noted	BR	TUE
	2000z	25 Aug	'NRH		BR	THU
	2000z	30 Aug	'025' 503 30 == 71037 ... 01759 ==	Strong, fast. Excellent Morse. Corrected error grp10	BR	TUE
5280	1800z	02 Aug	'025' 426 30 54216 ... 84413	Strong, slow. Excellent Morse. No errors. == omitted	BR	TUE
	1800z	04 Aug	'025' 134 30 == 75839 ... 17381 ==	Fair/Good, slow. Errors in start DK/GC. Otherwise Good	BR	THU
	1800z	09 Aug	'025' 294 30 == 63849 ... 83655 ==	V. weak but fair via SDR, Poland. Fast. No errors	BR	TUE
	1800z	11 Aug	NRH		BR	THU
	1800z	16 Aug	'025' 095 30 64537 ... 40987	Weak, fast. Poor copy. Errors noted. == omitted	BR	TUE
	1800z	18 Aug	'025' 436 30 53612 ... 49572	Fair/Good. Several single-fig repeat errors. == omitted	BR	THU
	1800z	23 Aug	'025' 185 30 == 19587 ... 86904 ==	Good, fast. Excellent Morse. Several errors noted	BR	TUE
	1800z	25 Aug	'025' 178 30 == 28746 ... 09760 ==	Good, fast. Excellent Morse. Errors in grps02 & 04	BR	THU
6435	1500z	13 Aug	'025' 815 == 89209 ... 36478 ==	Fair with QSB. Fast. GC missing at start. No errors in msg.	BR	SAT
	1500z	27 Aug	'025' 399 30 == 85769 ... 30093 ==	Good, fast. Grps1-11 & 18-30 excellent. Rest muddled	BR	SAT
6780	0700z	07 Aug	NRH		BR	SUN

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

No reports

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

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

Asiatic M12 Logs

10807/10297/9207	0700/20/40z	05 Jul	822 1	(Via SDR Japan)	HFD	TUE
15881/14781/13481	0210/30/50z	04 Jul	874 1	(Via SDR Japan)	HFD	MON
12163/11163/10463	0210/30/50z	15 Aug	114 1		HFD	MON

European M12 Logs**July 2022: New scheds in bold type**

7475/8075/9275	0030/0050/0110z	01 Jul	402 1 (864 79)	49911 04707 ... 18789 05299 000 000	Gert/HFD	FRI
	0030/0050/0110z	19 Jul	402 1 (837 68)	26907 28369 ... 02198 04519 000 000	Gert	TUE
	0030/0050/0110z	22 Jul	402 1 (837 68)	26907 28369 ... 02198 04519 000 000	Gert	FRI
	0030/0050/0110z	29 Jul	402 000		Gert	FRI
9284/8084/7584	2210/30/50z	02 Jul	295 1 (3546 90)	01663 13569....	BR	SAT
	2210/30/50z	06 Jul	295 1 (550 156)	17138 47025....	BR	WED
	2210/30/50z	09 Jul	295 1 (550 156)	17138 47025 ... 59074 95826 000 000	BR/Gert/HFD	SAT
	2210/30/50z	13 Jul	295 1 (863 64)	49962 37464....	BR	WED
	2210/30/50z	16 Jul	295 1 (863 64)	49962 37464 ... 86602 33429 000 000	BR/Gert	SAT
	2210/30/50z	20 Jul	295 1 (860 100)	62707 13932 ... 96233 40983 000 000	BR/Gert	WED
	2210/30/50z	23 Jul	295 1 (860 100)	62707 13932 ... 96233 40983 000 000	Gert	SAT
	2210/30/50z	27 Jul	295 1 (869 112)	10961 20448....	BR	WED
	2210/30/50z	30 Jul	295 1 (869 112)	10961 20448....	BR	SAT
10767/10167/9267	2100/20/40z	01 Jul	712 1 (696 90)	42842 23664....	BR	FRI
	2100/20/40z	02 Jul	712 1 (696 90)	42842 23664 ... 30890 77797 000 000	BR/Gert/HFD	SAT
	2100/20/40z	08 Jul	712 1 (6452 162)	34612 86176....	BR	FRI
	2100/20/40z	09 Jul	712 1 (6452 162)	34612 86176....	BR	SAT
	2100/20/40z	15 Jul	712 1 (716 104)	62684 44714....	BR	FRI
	2100/20/40z	16 Jul	712 1 (716 104)	62684 44714 ... 40281 36304 000 000	BR/Gert	SAT
	2100/20/40z	22 Jul	712 1 (716 104)	62684 44714....	BR	FRI
	2100/20/40z	23 Jul	712 1 (716 104)	62684 44714 ... 40271 36304 000 000	Gert	SAT
	2100/20/40z	29 Jul	712 1 (794 204)	45761 27842....	BR	FRI
	2100/20/40z	30 Jul	712 1 (794 204)	45761 27842....	BR	SAT
11435/10598/9327	1800/20/40z	09 Jul	938 1 (1581 79)	27235 43582....	BR	SAT
	1800/20/40z	16 Jul	938 1 (5874 79)	22852 23718 ... 01054 87910 000 000	Gert	SAT
	1800/20/40z	23 Jul	938 1 (1163 77)	54318 65240 ... 12156 48347 000 000	Gert	SAT
12205/13559/14728	1230/1250/1310z	11 Jul	973 1 (5131 60)	32368 80395....	BR	MON
	1230/1250/1310z	18 Jul	973 1 (7963 56)	50295 47744 ... 22819 67387 000 000	Gert	MON
	1230/1250/1310z	25 Jul	973 1 (9869 57)	42352 61900....	BR	MON
12217/108179317	2000/20/40z	04 Jul	617 000		BR	MON
	2000/20/40z	07 Jul	617 000		BR/HFD	THU
	2000/20/40z	14 Jul	617 1 (712 76)	25422 23577....	BR	THU
	2000/20/40z	18 Jul	617 000		Gert	MON
	2000/20/40z	21 Jul	617 000		Gert	THU
	2000/20/40z	25 Jul	617 000		BR	MON
	2000/20/40z	28 Jul	617 000		BR	THU
12218/13518/ - - -	0800/20/40z	01 Jul	254 000		AB/Gert	FRI
	0800/20/40z	08 Jul	254 000		Gert/HFD	FRI
	0800/20/40z	15 Jul	254 000		Gert	FRI
	0800/20/40z	19 Jul	254 000		Gert	TUE
	0800/20/40z	22 Jul	254 000		Gert	FRI
	0800/20/40z	29 Jul	254 000		Gert	FRI
13381/12181/10781	2110/30/50z	07 Jul	317 000		BR/HFD	THU
	2110/30/50z	11 Jul	317 000		BR	MON
	2110/30/50z	14 Jul	317 000		BR	THU
	2110/30/50z	18 Jul	317 1 (865 73)	98653 17449 ... 56372 25106 000 000	BR/Gert	MON
	2110/30/50z	21 Jul	317 1 (865 73)	98653 17449 ... 56372 25106 000 000	BR/Gert	THU
	2110/30/50z	28 Jul	317 000		BR	THU
13386/12189/11491	1110/30/50z	07 Jul	725 1 (9906 98)	33348 43199....	BR	THU
	1110/30/50z	21 Jul	725 1 (2852 95)	18896 77953 ... 15374 67899 000 000	BR/Gert	THU
	1110/30/50z	28 Jul	725 1 (6253 94)	99302 16212 ... 19844 29657 000 000	BR/Gert	THU
13979/13379/12179	1600/20/40z	03 Jul	931 1 (3460 83)	13869 06089 ... 72687 68746 000 000	Gert/HFD	SUN
	1600/20/40z	06 Jul	931 000		BR	WED
	1600/20/40z	17 Jul	931 000		BR	SUN
	1600/20/40z	20 Jul	931 1 (543 48)	21395 83910 ... 63407 85907 000 000	Gert	WED
	1600/20/40z	24 Jul	931 1 (543 48)	21395 83910....	BR	SUN
14968/14468/13368	1900/20/40z	01 Jul	943 000		Gert/HFD	FRI
	1900/20/40z	06 Jul	943 000		BR/HFD	WED
	1900/20/40z	08 Jul	943 000		BR	FRI
	1900/20/40z	13 Jul	943 000		BR	WED
	1900/20/40z	15 Jul	943 000		BR	FRI
	1900/20/40z	20 Jul	943 1 (5818 84)	99019 98529 ... 00060 01492 000 000	Gert/HFD	WED
	1900/20/40z	22 Jul	943 1 (5818 84)	99019 98529....	BR	FRI
	1900/20/40z	29 Jul	943 000		BR	FRI
16284/14984/14384	1600/20/40z	11 Jul	293 000		BR/HFD	MON
	1600/20/40z	14 Jul	293 000		BR	THU
	1600/20/40z	21 Jul	293 1 (6366 88)	38884 80945 ... 12992 49015 000 000	BR/Gert	THU

August 2022:

6784/8184/9342	0030/0050/0110z	02 Aug	713 000		Gert/HFD	TUE
	0030/0050/0110z	05 Aug	713 000		Gert	FRI
	0030/0050/0110z	16 Aug	713 000		Gert	TUE
	0030/0050/0110z	19 Aug	713 000		Gert	FRI
	0030/0050/0110z	23 Aug	713 000	(0050z transmission barely audible)	Gert	TUE
	0030/0050/0110z	30 Aug	713 1 (4382 94)	78549 09069 ... 63107 86360 000 000	AB/Gert	TUE
9052/8052/6952	2210/30/50z	03 Aug	992 1 (1341 112)	33026 40196....	BR	WED
	2210/30/50z	06 Aug	992 1 (1341 112)	33026 40196....	BR/HFD	SAT
	2210/30/50z	10 Aug	992 1 (868 98)	35149 55297....	BR	WED
	2210/30/50z	13 Aug	992 1 (868 98)	35149 55297....	BR	SAT
	2210/30/50z	17 Aug	992 1 (3254 124)	11087 50766....	BR	WED
	2210/30/50z	20 Aug	992 1 (3254 124)	11087 50766 ... 34698 22064 000 000	BR/Gert	SAT
	2210/30/50z	24 Aug	992 1 (459 94)	13507 44769....	BR	WED
	2210/30/50z	27 Aug	992 1 (459 94)	13507 44769....	BR	SAT
10314/9114/8014	2100/20/40z	05 Aug	310 1 (794 204)	45761 27842....	BR	FRI
	2100/20/40z	06 Aug	310 1 (794 204)	45761 27842....	BR/HFD	SAT
	2100/20/40z	12 Aug	310 1 (782 108)	12935 00124....	BR	FRI
	2100/20/40z	13 Aug	310 1 (782 108)	12935 00124....	BR	SAT
	2100/20/40z	19 Aug	310 1 (782 108)	12935 00124....	BR	FRI
	2100/20/40z	20 Aug	310 1 (782 108)	12935 00124 ... 80078 08112 000 000	BR	SAT
	2100/20/40z	26 Aug	310 1 (879 98)	46119 62573 ... 20730 23573 000 000	BR/Gert	FRI
	2100/20/40z	27 Aug	310 1 (879 98)	46119 62573....	BR	SAT
11148/10648 / - - -	0700/20/40z	11 Aug	161 000		HFD	THU
11435/10598/9327	1800/20/40z	06 Aug	938 1 (6200 77)	68773 68996....	BR	SAT
	1800/20/40z	20 Aug	938 1 (4589 76)	94269 08297 ... 62327 29325 000 000	BR/Gert	SAT
	1800/20/40z	27 Aug	938 1 (3283 78)	36656 49269....	BR	SAT
12148/10648/9148	2000/20/40z	01 Aug	374 000		BR/HFD	MON
	2000/20/40z	04 Aug	374 000		BR	THU
	2000/20/40z	08 Aug	374 1 (856 78)	05123 05814....	BR	MON
	2000/20/40z	11 Aug	374 1 (856 78)	05123 05814....	BR	THU
	2000/20/40z	15 Aug	374 000		BR	MON
	2000/20/40z	18 Aug	374 000		BR	THU
	2000/20/40z	22 Aug	374 000		BR	MON
	2000/20/40z	29 Aug	374 000		BR	MON
12205/13559/14728	1230/1250/1310z	01 Aug	973 1 (2424 58)	41392 19188....	BR	MON
	1230/1250/1310z	08 Aug	973 1 (9277 61)	19594 33160....	BR/HFD	MON
	1230/1250/1310z	15 Aug	973 1 (3637 61)	52661 37962 ... 40194 97696 000 000	BR/Gert	MON
	1230/1250/1310z	22 Aug	973 1 (4229 55)	90587 87122 ... 90012 34297 000 000	BR/Gert	MON
	1230/1250/1310z	29 Aug	973 1 (3581 60)	62223 77029 ... 18115 78306 000 000	Gert	MON
12214/11014/9914	2110/30/50z	01 Aug	209 000		BR/HFD	MON
	2110/30/50z	04 Aug	209 000		BR	THU
	2110/30/50z	08 Aug	209 000		BR	MON
	2110/30/50z	15 Aug	209 1 (1613 83)	48407 30310....	BR	MON
	2110/30/50z	18 Aug	209 1 (1613 83)	48407 30310....	BR	THU
	2110/30/50z	22 Aug	209 000		BR	MON
	2110/30/50z	29 Aug	209 000		Gert	MON
13386/12189/11491	1110/30/50z	11 Aug	725 1 (1300 98)	25801 39109 ... 97175 42744 000 000	BR/Gert	THU
	1110/30/50z	18 Aug	725 1 (7004 98)	62062 65397 ... 39434 02703 000 000	Gert	WED
	1110/30/50z	25 Aug	725 1 (2941 97)	02480 35376 ... 47933 09099 000 000	BR/Gert	THU
13391/13891/ - - -	0800/20/40z	02 Aug	387 000		Gert	TUE
	0800/20/40z	05 Aug	387 000		Gert/HFD	FRI
	0800/20/40z	16 Aug	387 000		Gert	TUE
	0800/20/40z	19 Aug	387 000		Gert	FRI
	0800/20/40z	23 Aug	387 000		BR	TUE
14681/13881/13381	1600/20/40z	03 Aug	683 000		BR	WED
	1600/20/40z	07 Aug	683 000		HFD	SUN
	1600/20/40z	28 Aug	683 1 (878 56)	13803 59934....	BR	SUN
15931/14831/13531	1920/40z	05 Aug	985 000		BR/HFD	FRI
15931/14831/13531	1900/20/40z	10 Aug	985 1 (9745 96)	48019 95434....	BR/HFD	WED
	1900/20/40z	12 Aug	985 1 (7945 96)	48019 95434 ... 14883 45940 000 000	BR/Gert	FRI
	1900/20/40z	24 Aug	985 000		BR	WED
	1900/20/40z	26 Aug	985 000		BR	FRI
16251/14951/14451	1600/20/40z	04 Aug	294 000		BR/HFD	THU
	1600/20/40z	08 Aug	294 000		BR	MON
	1600/20/40z	11 Aug	294 000		BR	THU
	1600/20/40z	15 Aug	294 1 (8930 94)	29594 37498....	BR	MON
	1600/20/40z	18 Aug	294 1 (8930 94)	29594 37498....	BR	THU
	1600/20/40z	22 Aug	294 000		BR	MON
	1600/20/40z	29 Aug	294 000		BR/Gert	MON

M12 10314/9114/8014kHz 2100/2120/2140z 26 August 2022															
310 310 310 1 (R2m) 879 98 879 98															
46119	62573	70652	16141	57106	30484	93264	71956	86223	79138						
12485	21676	26928	73484	64541	91152	22559	18590	01844	82477						
22148	84951	96177	49149	54413	48227	31885	69303	07015	98595						
16532	40134	19993	39113	65209	48502	18379	97493	47858	53363						
52772	88187	03046	20282	27593	89739	46725	65286	52632	79454						
26487	75001	14591	19744	86245	87296	92045	96540	97513	07269						
75655	53618	53434	76142	07779	24665	46691	99408	79829	32159						
12194	33784	58814	75575	74007	52194	58547	01529	88849	72705						
01793	00291	22613	18456	93759	81003	37079	96030	66428	68715						
84915	23677	83309	34928	58365	99463	20730	23573	000	000						
Courtesy Gert															

M12 6784/8184/9342kHz 0030/0050/0110z 30 August 2022															
713 713 713 1 (R2m) 4382 94 4382 94															
78549	09069	59290	06784	68928	99577	95821	50832	59563	06668						
56669	07421	76836	66423	19787	49381	82281	19782	94715	38393						
21459	82409	54209	32615	47930	39016	68686	39841	73655	24252						
80496	25931	66507	84461	03522	10920	89003	25894	41115	83580						
45454	09365	69147	59674	55293	23833	95952	45875	33556	90410						
99671	11308	44176	82656	57110	71681	15610	22253	46391	18242						
62147	75334	80716	50280	59087	43650	00293	90425	96069	19481						
36444	26072	66880	63860	72041	28587	08548	38401	26132	39232						
70137	91061	06108	23151	37728	63283	03785	25954	20736	57515						
68280	19520	63107	86360	000	000										
Courtesy AB															

M14 IA MCW / ICW Short 0

July 2022:

16347	0930z	10 Jul	617 (x3) 00000 (R4m)	(SDR Utwente)	ER	SUN
	0930z	25 Jul	617 (x3) 00000 (R4m)	(SDR Utwente)	ER	MON

August 2022:

10243	0520z	17 Aug	952 (146 54) = 40440 70215 ... 38252 91684 = 146 54 00000	(Via SDR Vietnam)	Gert	WED
	0520z	30 Aug	NRH		AB	TUE
12211	0500z	30 Aug	952 (314 55) = 46670 24170 ... 76564 48057 = 314 55	(No closing nulls)	AB	TUE
16347	0930z	10 Aug	NRH		AB/ER	WED

M14 12211kHz 0500z 30 August 2022															
952 (R4m) 314 314 55 55 ==															
46670	24170	84293	99515	31104	03658	50667	87681	11527	94268						
98826	67206	18701	57495	49697	84974	73363	03547	61907	47095						
45867	58279	10225	29825	04584	73985	83231	86695	45274	44960						
04926	75264	18590	13798	09932	51932	97917	79343	27016	08267						
54739	42241	50593	47262	33698	49024	04898	22988	44560	20668						
30533	92040	13261	76564	48057	==										
314 314 55 55 (No closing nulls)															
Courtesy AB															

M23 O ICW

No reports

Morse Stations - Not Number Related

M51 Resumes Normal Service

We previously reported that activity from the M51 group of stations was missing over the Easter period, 2022, following which transmissions were noted to be very irregular, with the station not appearing at all on some days while on other days was active only for short periods.

From 01 August, transmissions have largely returned to their normal pattern of daily transmissions, with only Friday 12 August logged as the station being missing from the airwaves. The reason for this period of disruption is unknown, however, we are pleased to see M51 back in fine form.

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

3881//6825															
1130 - 1212z	11 Jul	Lundi-Leçon	01-2/1 Codé	01-2/2 Clair,	01-2/3 Codé,	01-2/4 Clair (420 grps/hr)	BR	MON							
1130 - 1200z	05 Jul	Mardi-Leçon	22-2/1 Codé	22-2/2 Clair,	22-2/3 Codé,	22-2/4 Clair (600 grps/hr)	BR	TUE							
1130 - 1207z	02 Aug	Mercredi- Leçon	03-2/1 Codé,	03-2/2 Clair,	03-2/3 Codé,	03-2/4 Clair (720 grps/hr)	BR	WED							
1130 - 1154z	14 Jul	Jeudi- Leçon	04-2/1 Codé,	04-2/2 Clair,	04-2/3 Codé,	04-2/4 Clair (840 grps/hr)	BR	THU							
1130 - 1203z	15 Jul	Vendredi- Leçon	05-2/1 Codé,	05-2/2 Clair,	05-2/3 Codé,	05-2/4 Clair (960 grps/hr)	BR	FRI							

0700z	06 Aug	SAMEDI 1/ LEÇON NUMÉRO 1/1 VITESSE 420 CODÉ = SAMEDI 1/ LEÇON NUMÉRO 2/1 VITESSE 420 CLAIR =	AB AB	SAT SAT
0820z	06 Aug	SAMEDI 1/ LEÇON NUMÉRO 1/2 VITESSE 600 CODÉ = SAMEDI 1/ LEÇON NUMÉRO 2/2 VITESSE 600 CLAIR =	AB AB	SAT SAT

M51a **3881/6825kHz** **0700z** **06 August 2022**

VVV VVV VVV DE FAV22 FAV22 FAV22 QLH 3881/6825 KHZ

SAMEDI 1/ LEÇON NUMÉRO 1/1 VITESSE 420 CODÉ =
JHFRD NJSDE ZPOYT QRWET IYUTO POLKJ ZCXVB MNJHB ASFDG 13957
VXSGW ., 'ASVA QDSSG LJPÜO NVBFG YRTQW ASZXA QPLIH BCVDN HDYEI
10369 VXSUW 'AS?., TRYEU QEWAR BCXDS MIKHU RQEOH BGHVT XAZSQ
MNKHJ 47850 BQTBS VAAS?/. XCZPQ MLHPI XASQW LCMFY RGSQW XCADQ
PLKMO ZXCVD 75301 XUWDL ./?,= PLOIU BVDGW QTYRE ZXQWU PRUTY
BDGRT XCSRW OKRYU 85247 GRWTJ /?., 'FBFBI PLOIU VZBQI ETFGR
'AS./? NVDME 52036 VDGFS SHGCD AZSQL MNEYH DJFVO ALKCJ QWIVJ
BDGVX 50369 QAVNR 'VA+.? CBXZN MLFKE CALSD ETFUB +

SAMEDI 1/ LEÇON NUMÉRO 2/1 VITESSE 420 CLAIR =
LA COMMUNAUTÉ NATIONALE CONNAIT VOTRE COMPÉTENCE ET LES ÉMINENTES QUALITÉS NÉCESSAIRES À L'EXERCICE DU MÉTIER DES ARMES. ELLE DOIT AUSSI MESURER LES RISQUES QUE VOUS PRENEZ, LA PASSION AVEC LAQUELLE VOUS REMPLISSEZ VOS MISSIONS, LES RÉSULTATS QUE VOUS OBTENEZ SUR TOUS LES THÉÂTRES D'OPÉRATIONS. JE M'Y RENDRAI PROCHAINEMENT POUR MIEUX CONNAÎTRE, SUR LE TERRAIN, LES FORCES ET LEUR ACTION. JE M'INCLINE DEVANT LA MÉMOIRE DE CEUX QUI ONT DONNÉ LEUR VIE AU SERVICE DE NOTRE PAYS. JE TIENS AUSSI À ASSURER DE MA SOLIDARITÉ TOUS NOS BLESSÉS, QUI PORTENT DANS LEUR CHAIR LES TRACES DE LEUR ENGAGEMENT, ET LES FAMILLES DE CEUX QUI ONT ÉTÉ ÉPROUVÉS. +

CQ DE FAV22 VA

3881 06-08-2022 0744 M51b CW Non-stop 5-character groups composed of M51a messages
6825 06-08-2022 0744 M51b CW Non-stop 5-character groups composed of M51a messages

GFDTE XVWBQ ABNHU EILQP AMLIK WNQHZ SJQHS DGRTC XVQJA JUHKD
VCGFY RHQJA KWLQO ZTDFS 35271 WNDGR JQKIL PMAIU 67349 NWJDO
YHDTX XVSFE ZHQA KJQUH NWJFG HRTYU SKLOI MQPAZ BHPAK UJDGC
45270 37658 XVCBD WNQA JKQLA MPLIK JNDGR VXGQJ HDKRT UJFHV
BCNXH WJQKZ KALMP OIRTD FHCXV 01878 DHNCJ SKRTZ SJWNQ HNGTR
XCWVS QNBHA JQKAL MQLKO PAOQL NCHFG RTDFX WBQJH GBDJX

etc.

Courtesy AB

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

3881//6825

0630z	06 Aug	Non-stop 5-character groups composed of M51a messages	AB	SAT
1058z	06 Aug	Non-stop 5-character groups composed of M51a messages	AB	SAT
2306z	10 Aug	Non-stop 5-character groups composed of M51a messages	BR	TUE
2354z	24 Aug	Non-stop 5-character groups composed of M51a messages	BR	TUE

Peter, (PoSW), also reports M51b activity most days – Bastille Day being no exception!

M51b:- Continues on 6825//3881 kHz, seems to be active most days with fast CW, 5-character groups, usually a good signal on 6825, 3881 not so much in daylight hours as might be expected in the height of summer. Also noted on a day when, being French, it might have been expected to be absent:-

14-July-22, Thursday:- 6825 kHz, fast CW, strong signal - realised shortly afterwards that in France this is Bastille Day, a national holiday, everyone gets a day off - except those involved with this station, seemingly; a big parade through Paris, perhaps a bit like that shown towards the end of the motion picture The Day of the Jackal, hopefully without a British hit man seeking to assassinate the French President. CW still in progress at 1845z, 6825 very strong, 3881 now audible but weak, going strong at 2140z, 6825 still very strong and 3881 much stronger than earlier.

Many thanks for the report, Peter.

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).

4637	5167	6789
4880	5441	6796
	5672	6843

New Scheds for July / August 2022:
From logs submitted from JPL

8283	New frequency for this Round Slip	First heard 22 August	V QYE2 (x3) DE 9WVW (x2)
8350//7620	New frequencies for this Round Slip	First heard 22 August	V WNF(x3) DE FXM (x2) (R5) QSA ? QSV K (Hand sent)
4034	New Round Slip for this frequency	First heard 08 August	V JM7D (x3) DE CD2D (x2)

Chart of M89 Freq & Call signs heard in July / August 2022
New Scheds shown in Bold Type
From logs submitted from JPL

<u>Freq in KHz</u>	<u>Call Slip</u>	<u>Freq in KHz</u>	<u>Call Slip</u>
3596//4888	V QYE2 (x3) DE 9WVW (x2)	7620//8350	V WNF(x3) DE FXM (x2) (R5) (Hand Sent)
3596//8182	V QYE2 (x3) DE 9WVW (x2)	8182//NRH	V QYE2 (x3) DE 9WVW (x2)
4034	V MJO5 (x3) DE LK9M (x2) V JM7D (x3) DE CD2D (x2)	8283//NRH	V QYE2 (x3) DE 9WVW (x2)
4860// 6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) QSA ? K	8350//7620	V WNF(x3) DE FXM (x2) (Hand Sent)
		<i>Courtesy JPL</i>	

4637	1707z (IP) 08 Aug	RMKS .093 TO 478. BT	(Remote tuner Novosibirsk)	JPL	MON
4880	8DSL 2010z (IP) 18 Aug	8DSL calling various outstations (Note reverse use of call sign – 8DSL being the calling station). 8DSL de 6NOX K 8DSL de WPXJ K 8DSL de TWEW K 8DSL de XJCZ K (Ended 2017z – Nothing further heard).	Strong via Twente SDR	BR	THU
5167	1713z (IP) 08Aug	NR 066 CK 81 36 0809 0113 RMKS 0317 TO 0536 BT QSL 0113 K	(Remote tuner Novosibirsk)	JPL	MON
6789	1214z (IP) 03 Jul	RMKS 8558 TO 8533 K	(Remote tuner Taiwan)	JPL	SUN

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//7517	Call Sign S2DJ 2332z	New frequency for this new Round Slip. Believe this to be new Round Slip and freq for YHDX DE SAQC 02 Jul V XP5B (x3) DE S2DJ (x2)	(Remote tuner Novosibirsk)	JPL	SAT
	1743z	02 Aug V XP5B (x3) DE S2DJ (x2)	(Remote tuner Novosibirsk)	JPL	MON
4243//NRH	Message number differs from current XSV70 and XSV85 message numbers.				
4243//9054	Message number differs from current XSV70 and XSV85 message numbers. 1144 (IP) - 1153z	02 Jul NR 057 CK 39 35 0702 1551 BT NR 04 CK 138 35 0702 1553 BT	(Remote tuner Japan)	JPL	SAT
	1145 (IP) - 1153z	02 Aug NR 020 CK 17 35 0802 1526 BT NR 04 CK 113 35 0802 1535 BT	(Remote tuner Japan)	JPL	MON
4364//NRH	Call Sign XSV85 1131 (IP) - 1142z	02 Aug NR 682.... 70 CK 180 35 0802 1 EEEEE NR 0571 CK 181 35 0802 1658 BT	(Remote tuner Hong Taiwan) (Very weak/fading)	JPL	MON
4364//8073	Call Sign XSV85 1131 - 1142z	07 Jul NR 0489 CK 287 35 0702 1615 BT	(Remote tuner Hong Taiwan)	JPL	SAT
5651//12039	Call sign S2DJ 1202z	02 Jul V XP5B (x3) DE S2DJ (x2) (IP - Cont'd)	(Remote tuner Novosibirsk)	JPL	SAT
	1158z	02 Aug V XP5B (x3) DE S2DJ (x2) (IP - Cont'd)	(Remote tuner Novosibirsk)	JPL	MON
7517	Call sign S2DJ 2316z	02 Aug V XP5B (x3) DE S2DJ (x2) (IP – cont'd)	Good	BR	TUE
10180	Call Sign 3A7D	(Active daily - only first marker log has been included)			
10722//NRH	Call Sign 3A7D 1048z	01 May YHDX (x3) DE SAQC (x2)	(Remote tuner Khabarovsk)	JPL	FRI

M95	4243//9054kHz	1144z (IP)	22 July 2022
In Progress at 1144z In Chinese digital 4+4 QPSK 75/3000 - LSB – 1144z Switched to CW – Hand sent – 1147z			
VV HR MSG TO YR PSE CY	(1147z)		
NR 057 CK 39 35 0702 1551 BT			
5AA UTT TTU 3U6 3A4 5T7 5TD 75U 353 U4T			
354 DN7 36T 4TN 445 3DA 4DD 5TN 75U 353			
U4T 354 DN7 36T 4TN 445 3DA 4DD 5AA 75U			
353 U4T 354 DN7 36T 4TN 445 3DA 4DD AR	(1152z)		
A HR MSG GA			
NR 04 CK 138 35 0702 1553 BT			
UTU TTU 3U6 3A4 TTU 773 353 U4T 354 DN7 (Cont'd – 1153z)			
M95	4364//8073kHz	1131z	02 July 2022
In Progress at 1131z In Chinese digital 4+4 QPSK 75/3000 - LSB – 1131z Switched to CW – Hand sent – 1140z			
V BNGC (x3) DE XSV85 (x2)	(Cont'd – 1140z)		
HR MSGs GA PSE CY			
NR 0489 CK 287 35 0702 1615 BT			
TTU 3U6 3AN 3U7 TAU 773 357 373 4T6 NN3 (Cont'd – 1142z)			
<i>Courtesy JPL</i>			

M95	4243//9054kHz	1145z	02 August 2022
In Progress at 1145z In Chinese digital 4+4 QPSK 75/3000 - LSB – 11445z Switched to CW – Hand sent – 1148z			
VV HR MSG TO UR PSE CY	(1148z)		
NR 020 CK 17 35 0802 1526 BT			
5AA UTT TTU 3U6 3A4 5T7 5TD 5TN 5AA 75U			
353 U4T 35A 4TN 445 3DA 4D3 AR			
MSG AGN			
NR 020 CK 17 35 0802 1526 BT	(Repeats message – 1150z)		
AR A HR MSG GA			
NR 04 CK 113 35 0802 1535 BT			
UTU TTU 3U6 3A4 TTU N44 5AA 75U 35A U4T (Cont'd – 1153z)			
<i>Courtesy JPL</i>			

Marker Beacons (MX MXI)

5153.7	2125z	16 Jul	MXI	CW	Beacon "D"	Sevastopol	BR	SAT
5153.8	2125z	16 Jul	MXI	CW	Beacon "P"	Kaliningrad	BR	SAT
5153.9	2126z	16 Jul	MXI	CW	Beacon "S"	Severomorsk	(Weak) BR	SAT
7508.7	2318z	02 Aug	MXI	CW	Beacon "D"	Sevastopol	BR	TUE
7508.8	2132z	16 Jul	MXI	CW	Beacon "P"	Kaliningrad	BR	SAT
7508.9	2132z	16 Jul	MXI	CW	Beacon "S"	Severomorsk	BR	SAT
	1313z	25 Aug	MXI	CW	Beacon "S"	Severomorsk	BR	THU
7509.1	2132z	16 Jul	MXI	CW	Beacon "A"	Astrakhan	BR	SAT
8494.8	2135z	16 Jul	MXI	CW	Beacon "P"	Kaliningrad	BR	SAT
8494.9	2135z	16 Jul	MXI	CW	Beacon "S"	Severomorsk	BR	SAT
8495	2315z	02 Aug	MXI	CW	Beacon "C"	Moscow	(Distorted & chirpy) BR	TUE
8495.1	2135z	16 Jul	MXI	CW	Beacon "A"	Astrakhan	BR	SAT
8497.8	1136z	16 Jul	MX	CW	Beacon "L"	St Petersburg	BR	SAT
10871.7	2140z	16 Jul	MXI	CW	Beacon "D"	Sevastopol	BR	SAT
10871.9	2140z	16 Jul	MXI	CW	Beacon "S"	Severomorsk	BR	SAT
10872.1	2140z	16 Jul	MXI	CW	Beacon "A"	Astrakhan	BR	SAT
13527.7	1614z	02 Jul	MXI	CW	Beacon "D"	Sevastopol	HFD	SAT
	2142z	16 Jul	MXI	CW	Beacon "D"	Sevastopol	BR	SAT
13527.8	1944z	10 Aug	MXI	CW	Beacon "P"	Kaliningrad	BR	WED
13527.9	2142z	16 Jul	MXI	CW	Beacon "S"	Severomorsk	BR	SAT
13528	2142z	16 Jul	MXI	CW	Beacon "C"	Moscow	BR	SAT
13528.1	2142z	16 Jul	MXI	CW	Beacon "A"	Astrakhan	BR	SAT
16331.7	1309z	25 Aug	MXI	CW	Beacon "D"	Sevastopol	BR	THU
16331.8	1039z	20 Jul	MXI	CW	Beacon "P"	Kaliningrad	BR	WED
16331.9	2144z	16 Jul	MXI	CW	Beacon "S"	Severomorsk	BR	SAT
20047.8	1038z	20 Jul	MXI	CW	Beacon "P"	Kaliningrad	BR	WED
20047.9	1038z	20 Jul	MXI	CW	Beacon "S"	Severomorsk	(Weak) BR	WED

Oddities

'The Goose'

3243	0204z 0213z	04 Jul 20 Jul	'Goose' Marker – Night Freq 'Goose' Marker – Night Freq	Minor QSB	Good Moderate	USB USB	chpa chpa	MON WED
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'The Air Horn'

3510	0208z 0214z	04 Jul 20 Jul	Marker signal (Air Horn) Marker signal (Air Horn)		Excellent Good	USB USB	chpa chpa	MON WED
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'The Alarm'

4770	0212z 0217z	04 Jul 20 Jul	Marker Signal (The Alarm) Marker Signal (The Alarm)	Minor QSB	Moderate Moderate	USB USB	chpa chpa	MON WED
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S28 'The Buzzer'

4625	0211z 0216z	04 Jul 20 Jul	S28 S28	'The Buzzer' Marker 'The Buzzer' Marker	With QRM	Good Good	USB USB	chpa chpa	MON WED
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S30 'The Pip'

3756	0209z 0215z	04 Jul 20 Jul	S30 S30	'Pip' marker (Night freq) 'Pip' marker (Night freq)	Minor QSB	Moderate Good	USB USB	chpa chpa	MON WED
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4182 'T Marker'

0218z	20 Jul	Normal sound from the T Marker	Good	USB	chpa	WED
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All logs from chpa Monitored from Stockholm

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

Voice stations, Polytones and Hybrids

E06

July/Aug log:

Monday		0210z	11632kHz	0310z	13827kHz
04/07	'537' 610 39 88521.....etc	(Thanks Hfd)			
		0210z	11472khz	0310z	13584kHz
22/08	'537' 198 44 76749.....etc	(Thanks Hfd)			
Thursday (repeats Friday)		0300z	14845kHz	0400z	12189khz (frequencies may vary slightly)
01/07	'361' 729 33 09149.....etc	(Thanks Hfd)			
		0300z	14648kHz	0400z	12084kHz
22/08	'361' 475 38 45881.....etc	(Thanks Hfd)			
First /Third Thursday (repeats Friday)		0500z	13825kHz	0600z	15615kHz
07/06	'679' 284 53 12874 08553 23217 30165 19403 94825 26946 31617 45684 46243 08594 85223 53332 46531 40087 92090 30278 22329 64562 92587 76772 41964 33985 73171 33291 23698 94124 10040 92508 64379 71591 23026 62553 24453 42599 38192 73714 30243 88158 82551 45795 79465 65390 59352 58294 60905 49629 77369 90612 24178 27020 32640 24465 284 53 00000				
21/07	'679' 546 51 70244 25816 27169 15976 18298 85043 41834 00609 91065 63699 40739 80976 10698 93698 64296 38339 54270 89798 08138 35102 30077 49783 17806 57066 32526 47724 48786 82317 30344 93736 59055 12717 67768 58681 26328 28920 83407 87245 07219 54876 76475 47836 80460 42733 75071 92734 41414 14091 86192 26933 40023 546 51 00000				
		0500z	13540kHz	0600z	16115kHz
04/08	'210' 987 53 02173 49527 19509 39820 24117 27925 26660 09269 44244 40147 06541 06717 42713 93602 04277 72205 76748 09549 76812 18747 27902 53136 11896 70021 14250 88168 70603 16739 90977 73746 39336 20369 87773 45002 02224 18921 56477 45099 69879 14462 27423 00687 25441 47064 97913 58010 73826 84857 01249 21837 05163 84889 29775 987 53 00000				

18/08 '210' 849 53 79677 71789 71838 68217 31585 83855 67757 89403 80193 31451 21749 05717 25099 30394 77127 28807 85887 32798 40341 95280
42443 97333 76006 59541 98390 75206 80558 80789 09875 22800 89203 76539 46857 76908 95859 41065 79122 53517 90773 52231
04174 56042 45496 15140 59219 03991 99919 16032 84418 17961 31037 84875 29592 849 53 00000

From PoSW

There only appears to be one regular E06 schedule on at a convenient time for us in the increasingly dis – United Kingdom, first + third Thursdays in the month 0500 + 0600 UTC, 6am and 7am in these parts.

7-July-22:- 0500 UTC, 13825 kHz, call “679”, DK/GC “284 284 53 53”, weak signal.
0600 UTC, 15615 kHz, second sending, stronger, ended just after 0613 UTC.

8-July-22, Friday:- nothing readable from the expected repeats on the following day, presumably because due to propagation.

22-July-22, Friday:- forgot to listen on Thursday, suffering from the heat for the past couple of days, got to 39 Celsius at Stansted Airport, became somewhat disorientated.

0500 UTC, 13825 kHz, “679”, DK/GC “546 546 51 51”, S4 to S5.

0600 UTC, 15615 kHz, slightly stronger, ended before 0613 UTC, voice came back with “67..” about 20 seconds afterwards.

4-Aug-22:- 0500 UTC, 13540 kHz, call “210”, DK/GC “987 987 53 53”, fair signal.

0600 UTC, 16115 kHz, weak, difficult copy, became slightly stronger around 0606z.

5-Aug-22, Friday:- 0500 UTC, 13540 kHz, weak.

0600 UTC, 16115 kHz, also weak.

18-Aug-22:- Nothing audible at either 0500 or 0600 UTC. Slightly better on the Friday repeat, but not by much:-

19-Aug-22, Friday:- 0500 UTC, 13540 kHz, very weak, E06 voice rose up out of the noise around 0508 UTC.

0600 UTC, 16115 kHz, calling “210”, weak, unable to hear much else.

E07

PoSW logs reflect occurrences in others' logs:

Saturday Schedule, 1300 UTC Start:-

2-July-22:- 1300 UTC, 12176 kHz, “152 152 152 000”, good signal.

1320 UTC, 11576 kHz, second sending, weaker, local interference a problem.

9-July-22:- 1300 UTC, 12176 kHz and 1320 UTC, 11576 kHz, “152 152 152 000”.

16-July-22:- 1300 UTC, 12176 kHz, “152 152 152 000”.

1320 UTC, 11576 kHz, strong enough to over-ride local interference.

23-July-22:- 1300 UTC, 12176 kHz, strong and 1320 UTC, 11576 kHz, weaker, “152 152 152 000”.

30-July-22:- 1300 UTC, 12176 kHz, “152 152 152 000”, strong.

1320 UTC, 11576 kHz, also strong.

6-Aug-22:- 1300 UTC, 12176 kHz, “152 152 152 000”, strong.

1320UTC, 11576 kHz, weaker.

20-Aug-22:- 1300 UTC, 12176 kHz, “152 152 152 000”, strong signal.

1320 UTC, 11576 kHz, weaker.

27-Aug-22:- 1300 UTC, 12176 kHz and 1320 UTC, 11576 kHz, “152 152 152 000”.

Sunday Schedule, 0600 UTC Start:-

Sends the same routine as on the previous day's 1300 UTC schedule.

3-July-22:- 0600 UTC, 10317 kHz, “312 312 312 000”, weak signal.

0620 UTC, 11117 kHz, very weak.

10-July-22:- 0600 UTC, 10317 kHz, very weak, unreadable.

0620 UTC, 11117 kHz, “312 312 312 000”, only just audible.

24-July-22:- 0620 UTC, 11117 kHz, “312 312 312 000”, weak, nothing readable from the first sending on 10317.

31-July-22:- 0600 UTC, 10317 kHz, very weak, unreadable.

0620 UTC, 11117 kHz, “312 312 312 000”.

7-Aug-22:- 0600 UTC, 9261 kHz, very weak signal, unreadable, predicted frequency of first sending in this month.

0620 UTC, 10261 kHz, also too weak to copy.

21-Aug-22:- 0600 UTC, 9261 kHz, “224 224 224 000”, weak, difficult copy.

0620 UTC, 10261 kHz, too weak to copy.

28-Aug-22:- 0600 UTC, 9261 kHz and 0620 UTC, 10261 kHz, both slightly stronger than in this month so far, “224 224 224 000”.

Saturday + Thursday Schedule, 1410 UTC Start:-

2-July-22, Saturday:- 1410 UTC, 13562 kHz, “441 441 441 000”, good signal.
1430 UTC, 14862 kHz, weaker.

7-July-22, Thursday:- 1410 UTC, 13562 kHz, “441 441 441 000”, S6.
1430 UTC, 14862 kHz, stronger.

9-July-22, Saturday:- 1410 UTC, 13562 kHz, “441 441 441 000”, weak signal.
1430 UTC, 14862 kHz, stronger with deep fading.

14-July-22, Thursday:- 1410 UTC, 13562 kHz, “441 441 441 1”, message – for a change, DK/GC “122 74” x 2, weak signal.
1430 UTC, 14862 kHz, stronger.
1450 UTC, 16162 kHz, strongest of the three transmissions.

16-July-22, Saturday:- 1410 UTC, 13562 kHz, “441” and “122 74” again, peaking S4 to S5.
1430 UTC, 14862 kHz, slightly stronger.
1450 UTC, 16162 kHz, strongest, S7.

21-July-22, Thursday:- 1410 UTC, 13562 kHz, “441 441 441 000”, S4 to S5.
1430 UTC, 14862 kHz, weaker.

23-July-22, Saturday:- 1410 UTC, 13562 kHz, “441 441 441 000”, S8 with deep QSB.
1430 UTC, 14862 kHz, weaker.

30-July-22, Saturday:- 1410 UTC, 13562 kHz, “441 441 441 1”, message, sank into noise, DK/GC unreadable.
1430 UTC, 14862 kHz, much clearer, DK/GC “9136 69” x 2.
1450 UTC, 16162 kHz, weaker.

4-Aug-22, Thursday:- 1417 UTC, 13519 kHz, message in progress, missed the start, ended about a minute after tuning in, weak signal.
1430 UTC, 14819 kHz, second sending much stronger, “288 288 288 1”, DK/GC “9843 69”.
1450 UTC, 15919 kHz, good signal.

6-Aug-22, Saturday:- 1410 UTC, 13519 kHz, “288” and “9843 69” again, around a 5 on the S-meter.
1430 UTC, 14819 kHz, good signal.
1450 UTC, 15919 kHz, strongest of the three.

11-Aug-22, Thursday:- 1410 UTC, 13519 kHz, very weak, nothing readable, second sending much better:-
1430 UTC, 14819 kHz, “288 288 288 000”.

18-Aug-22, Thursday:- 1410 UTC, 13519 kHz, “288 288 288 1”, message, DK/GC “2891 63” x 2. Fair signal, interference from a rapidly swept carrier.
1430 UTC, 14819 kHz, slightly weaker.
1450 UTC, 15919 kHz, very weak, unreadable.

20-Aug-22, Saturday:- 1410 UTC, 13519 kHz, “288” and “2891 63” again, weak signal.
1430 UTC, 14819 kHz, stronger.
1450 UTC, 15919 kHz, fair signal with occasional deep fading.

27-Aug-22, Saturday:- 1410 UTC, 13519 kHz, weak with swept carrier interference and 1430 UTC, 14819 kHz, stronger, “288 288 288 000”.

Onto Others’ logs:

Sunday**July 2022**

0600z	10317kHz	0620z	11117kHz	0640z	12217kHz
03/07	312 000				0600z Fair, 0620z Weak
10/07	312 000				0600z Very weak, 0620z NRH
17/07	312 000				Fair
24/07	312 000				Weak

August 2022

0600z	9261kHz	0620z	10261kHz	0640z	11461kHz
07/08	224 000				Weak
14/08	224 000				0600z Weak, 0620z Fair
21/08	224 000				Fair
28/08	224 000				Fair QRM3

Sunday/Wednesday**July 2022**

1700z	12223kHz	1720z	11023kHz	1740z	10123kHz
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APPARENTLY CLOSED**August 2022**

1700z	13397kHz	1720z	12197kHz	1740z	10697kHz
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APPARENTLY CLOSED**Tuesday/Friday****July 2022**

0700z	15962kHz	0720z	17462kHz	0740z	18542kHz
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01/07	945 000				Weak
05/07	945 000				Weak
08/07	945 000				Weak
12/07	945 1 8226 63 46478 ... 24959 000 000				Weak, Finnish SDR
15/07	945 1 8226 63 46478 ... 18226 000 000			[0740z Dutch SDR]	Weak
19/07	945 000			[0700z Dutch SDR]	Weak
22/07	945 000				Weak
26/07	945 1 880 102 48366 ... 33455 000 000				Weak: 0700z QSB, 0740z Dutch SDR
29/07	945 1 880 102 48366 ... 33455 000 000				0700z Fair, 0720,0740z Weak via Dutch SDR

August 2022

0700z	16246kHz	0720z	18446kHz	0740z	19246kHz
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02/08	242 1 8516 102 23042 ... 10179 000 000				All Weak, 0740z via Dutch SDR
05/08	242 1 8516 102 23042 ... 10179 000 000				All Weak 0720/0740z Dutch SDR
09/08	242 000				Weak, 0720z Dutch SDR
12/08	242 000				Weak
16/08	242 1 6234 86 01010 ... 73293 000 000				Weak 0720/0740z Finnish SDR
19/08	242 1 6234 86 01010 ... 75293 000 000				Weak 0720, 0740z Dutch SDR
26/08	242 000				Weak
30/08	242 1 2776 63 98712 ... 67310 000 000				0700z Weak +QRM: Dutch SDR, 0720z NRH, 0740z Weak: Finnish SDR

Thursday/Saturday**July 2022**

1410z	13562kHz	1430z	14862kHz	1450z	16162kHz
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02/07	441 000				Weak
07/07	441 000				Fair
09/07	441 000				1410z Weak, 1430z Fair

14/07	441 1 122 74 74878 ... 64276 000 000	Weak
441 441 441 1 441 441 441 1 441 441 441 1 122 74 74878 68103 57563 58444 12240 48579 63570 53221 62994 56627 82384 50957 61688 72485 93278 33335 91785 86177 34177 94886 58113 75279 64134 48396 63929 39840 11931 55789 76413 91784 30429 65524 52735 93692 39775 78006 81706 71847 52250 57578 87667 30274 73408 61161 70790 54363 96394 44136 13201 72274 58434 55707 15409 83294 97403 32541 70334 52695 90278 15439 02677 77037 48735 75589 66333 34151 20580 46915 07240 08566 60507 05279 98782 64276 000 000 <i>Courtesy HJH</i>		
16/07	441 1 122 74 74878 ... 64276 000 000	1410, 1450z Weak 1430z Fair
21/07	441 000	1410z Fair, 1430z Weak
23/07	441 000	Weak
28/07	441 1 9136 69 05094 ... 02520 000 000	1410z Fair, 0730, 0750z Weak
30/07	441 1 9316 69 05094 ... 02520 000 000	1410z Weak, 1430z Fair, 1450z Weak, restart at 1455z

August 2022

1410z	13519kHz	1430z	14819kHz	1450z	15919kHz
04/08	288 1 9843 69 01865 ... 95163 000 000				1410, 1450z Weak 1430z Fair
06/08	288 1 9843 69 01865 ... 95163 000 000				Weak
11/08	288 000				Weak
13/08	288 000				Weak
18/08	288 1 2891 63 86900 ... 27032 000 000				1410z Fair, rest weak. 1450z Dutch SDR
20/08	288 1 2891 63 86900 ... 27032 000 000				Weak
25/08	288 000				Weak, local QRM3/4
27/08	288 000				1410z Weak 1430z Fair

Saturday

July 2022

1300z	12176kHz	1320z	11576kHz	1340z	10276kHz
02/07	152 000				Weak
09/07	152 000				Weak
16/07	152 000				Weak
23/07	152 000				Weak
30/07	152 000				Fair

August 2022

1300z	12176kHz	1320z	11576kHz	1340z	10276kHz
06/08	152 000				Fair
13/08	152 000				1300z Weak, 1320z Fair
20/08	152 000				1300z Strong, 1320z Weak
27/08	152 000				Fair, 1320z QRM3

E07a

ALL SCHEDULES CLOSED

E11 & E11a log July/August

4783kHz	1910z	02/07 [390/00] Out 1913z S6		Malc	SAT
	1910z	06/07 [399/00] Out 1913z S5 + QRM		Malc	WED
	1910z	09/07 [399/00] Out 1913z S7		Malc	SAT
	1910z	13/07 [391/00] Out 1913z S6		Malc, Gary H	WED
	1910z	16/07 [395/00] Out 1913z S6		Malc	SAT
	1910z	23/07 [393/33 97879.....77180] Out 1920z S5		Malc	SAT
	1910z	27/07 [395/00] Out 1913z S5+QRM		Malc	WED
	1910z	30/07 [396/00] Out 1913z S9+QRM		Malc	SAT
	1910z	03/08 [393/00] Out 1913z S9+QRM		Malc	WED
	1910z	06/08 [390/00] Out 1913z S7		Malc	SAT
	1910z	13/08 [390/35 02923.....85929] Out 1921z S9		Malc	SAT
	1910z	10/08 [390/35 02923.....etc]		Malc	WED
	1910z	17/08 [396/00] Out 1913z S7		Malc	WED
	1910z	20/08 [394/00] Out 1913z S9		Malc	SAT
	1910z	31/08 [396/00] Out 1913z S9		Malc	WED
4909kHz	0820z	01/07 [434/00] Out 0823z S4 (Polish SDR)		Malc, RNGB	FRI
	0820z	08/07 [432/00] Out 0823z S4 (Polish SDR)		Malc	FRI
	0820z	14/07 [432/00] Out 0823z S5 (Finnish SDR)		Malc	THU
	0820z	15/07 [436/00] Out 0918z S3 (Finnish SDR)		Malc	FRI
	0820z	28/07 [432/38 18200.....38195] Out 0831z S5 (Finnish SDR)		Malc	THU
	0820z	29/07 [432/38 18200.....etc] Repeat of Thursday		Malc	FRI
	0820z	05/08 [438/30 13856.....75065] Out 0830z S5 (Finnish SDR)		Malc	FRI
	0820z	18/08 [432/00] Out 0823z S2 (Dutch SDR)		Malc	THU
5082kHz	1530z	02/07 [366/00] Out 1533z S3 (Dutch SDR)		Malc, Gary H	SAT
	1530z	03/07 [364/00] Out 1533z S3 (Dutch SDR)		Malc	SUN
	1530z	09/07 [368/00] Out 1533z S3		Malc	SAT
	1530z	16/07 [365/00] Out 1533z S4 (Dutch SDR)		Malc	SAT
	1530z	17/07 [364/00] Out 1533z S3 (Dutch SDR)		Malc	SUN
	1530z	24/07 [364/37 75996.....62905] Out 1541z S4 (Dutch SDR)		Malc	SUN
	1530z	30/07 [367/00]		Gary H, Malc	SAT
	1530z	06/08 [368/34 43901.....21065] Out 1540z S8 (Finnish SDR)		Malc	SAT
	1530z	07/08 [368/34 43901.....etc] Repeat of Saturday		Malc	SUN
	1530z	13/08 [367/00] Out 1533z S3 (Dutch SDR)		Malc	SAT
	1530z	14/08 [364/00] Out 1533z S3 (Dutch SDR)		Malc	SUN
	1530z	20/08 [368/00] Out 1533z S3 (Dutch SDR)		Malc	SAT
	1530z	21/08 [369/00] Out 1533z S5 (Dutch SDR)		Malc	SUN
	1530z	27/08 [366/00] Out 1533z S3 (Dutch SDR)		Malc	SAT
	1530z	28/08 [368/00] Out 1533z S3 (Dutch SDR)		Malc	SUN
5231kHz	1605z	03/07 [231/00] Out 1608z S3 (Dutch SDR)		Malc	SUN
	1605z	05/07 [235/00] Out 1608z S3 (Dutch SDR)		Malc	TUE
	1605z	12/07 [235/32 83305.....85496] Out 1615z S3 (Dutch SDR)		Malc	TUE
	1605z	17/07 [235/32 83305.....etc] Out 1615z S3 (Dutch SDR)		Malc	SUN
	1605z	19/07 [237/00] Out 1608z S3 (Dutch SDR)		Malc	TUE
	1605z	24/07 [236/00] Out 1608z S3 (Dutch SDR)		Malc	SUN
	1605z	26/07 [230/00] Out 1608z S3 (Dutch SDR)		Malc	TUE
	1605z	14/08 [230/39 77110.....29883] Out 1616z S3 (Dutch SDR)		Malc	SUN
	1605z	16/08 [231/00] Out 1608z S2		Malc, Gary H	TUE
	1605z	21/08 [238/00] Out 1608z S4 (Dutch SDR)		Malc	SUN
	1605z	28/08 [238/00] Out 1608z S3 (Dutch SDR)		Malc	SUN
	1605z	30/08 [238/00] Out 1608z S2		Malc, Gary H	TUE
5409kHz	2000z	03/07 [524/00] Out 2003z S5		Malc	SUN
	2000z	17/07 [524/00] Out 2003z S4		Malc	SUN
	2000z	21/07 [528/35 07609 62343 50210 42792 53951 14254 67356 62181.....67140 63114] Out 2010z		Gary H, Malc	THU
	2000z	24/07 [528/35 07609.....etc] repeat of Thursday		Malc	SUN
	2000z	28/07 [527/00] Out 2003z S5		Malc	THU
	2000z	04/08 [522/00] Out 2003z S7		Malc	THU
	2000z	07/08 [527/00] Out 2003z S5		Malc	SUN
	2000z	11/08 [525/00] Out 2003z S5		Malc	WED
	2000z	14/08 [528/00] Out 2003z S6		Malc	SUN
	2000z	18/08 [525/00] Out 2003z S5		Malc	THU
	2000z	21/08 [524/00] Out 2003z S3		Malc	SUN
	2000z	28/08 [524/38 66924.....26514] Out 2011z S3		Malc	SUN

5737kHz	1300z	04/07 [312/38 39327.....36221] Out 1311z S3 (Dutch SDR)	Malc	MON
	1300z	07/07 [312/38 39327 75798 65371 76339 08034 27232 17540 32465.....82445 36421]	Gary H, Malc	THU
	1300z	11/07 [314/00] Out 1303z S3 (Dutch SDR)	Malc	MON
	1300z	14/07 [316/00] Out 1303z S3 (Finnish SDR)	Malc	THU
	1300z	18/07 [310/00] Out 1303z S3 (Dutch SDR)	Malc	MON
	1300z	21/07 [314/00] Out 1303z S2 (Dutch SDR)	Malc	THU
	1300z	24/07 [312/00]	Gary H	SUN
	1300z	25/07 [312/00] Out 1303z S3 (Dutch SDR)	Malc	MON
	1300z	28/07 [310/00] Out 1303z S4 (Dutch SDR)	Malc	THU
	1300z	01/08 [315/00] Out 1303z S4 (Dutch SDR)	Malc	MON
	1300z	04/08 [316/00] Out 1303z S3 (Dutch SDR)	Malc	THU
	1300z	11/08 [312/00] Out 1303z S5 (Finnish SDR)	Malc	WED
	1300z	18/08 [311/00] Out 1303z S3 (Dutch SDR)	Malc	THU
	1300z	29/08 [315/00] Out 1303z S2 (Dutch SDR)	Malc	MON
6304kHz	1205z	06/07 [460/00] Out 1208z S2	Malc	WED
	1205z	12/07 [649/00] Out 1208z S3 (Dutch SDR)	Malc	TUE
	1305z	13/07 [466/00] Out 1308z S3 (Dutch SDR)	Malc	WED
	1205z	20/07 [465/00] Out 1208z S3 (Dutch SDR)	Malc	WED
	1205z	26/07 [469/36 30797.....26230] Out 1216z S9 (Finnish SDR)	Malc	TUE
	1205z	02/08 [464/38 66867.....39837] Out 1216z S7 (Finnish SDR)	Malc	TUE
	1205z	03/08 [464/38 66867.....etc] repeat of Tuesday	Malc	WED
	1205z	09/08 [462/00] Out 1208z S2 (Dutch SDR)	Malc	TUE
	1205z	16/08 [461/00] Out 1208z S3 (Dutch SDR)	Malc	TUE
	1205z	17/08 [460/00] Out 1208z S2	Malc	WED
	1205z	30/08 [460/00] Out 1208z S3 (Dutch SDR)	Malc	TUE
	1205z	31/08 [460/00] Out 1208z S2 (Dutch SDR)	Malc	WED
6923kHz	0930z	06/07 [273/00] Out 0933z S2	Malc	WED
	0930z	07/07 [278/00] Out 0933z S2	Malc	THU
	0930z	13/07 [275/00] Out 0933z S3 (Dutch SDR)	Malc	WED
	0930z	14/07 [279/00] Out 0933z S4 (Dutch SDR)	Malc	THU
	0930z	20/07 [279/36 92391 32124 20594 09476 75510 41840 17567.....13964 80229] Out 0941z S3	RNGB, Malc	WED
	0930z	21/07 [279/36 92391.....etc] Repeat of Wednesday	Malc	THU
	0930z	27/07 [275/00] Out 0933z S4 (Dutch SDR)	Malc	WED
	0930z	28/07 [270/00] Out 0933z S2	Malc	THU
	0930z	03/08 [270/00] Out 0933z S2	Malc	WED
	0930z	04/08 [271/00] Out 0933z S2	Malc	THU
	0930z	11/08 [270/00] Out 0933z S2 (Dutch SDR)	Malc	WED
	0930z	10/08 [277/00] Out 0933z S2	Malc	WED
	0930z	18/08 [275/38 73853.....35408] OUT 0941z S6 (Finnish SDR)	Malc	THU
	0930z	25/08 [279/00] Out 0933z	RNGB	THU
	0930z	31/08 [278/00] Out 0933z S2	Malc	WED
7377kHz	0700z	02/07 [491/00] Out 0703z S2	Malc	SAT
	0700z	03/07 [490/00] Out 0703z S2	Malc	SUN
	0700z	09/07 [498/00] Out 0703z S2	Malc	SAT
	0700z	16/07 [497/00] Out 0703z S2	Malc	SAT
	0700z	17/07 [492/00] Out 0703z S2	Malc, RNGB	SUN
	0700z	23/07 [496/00] Out 0703z S2	Malc	SAT
	0700z	24/07 [495/00] Out 0703z S3	Malc	SUN
	0700z	06/08 [490/00] Out 0703z S2	Malc	SAT
	0700z	07/08 [495/00] Out 0703z S3	Malc	SUN
	0700z	13/08 [496/00] Out 0703z S2	Malc	SAT
	0700z	14/08 [491/00] Out 0703z S2	Malc	SUN
	0700z	20/08 [490/00] Out 0703z S2	Malc	SAT
	0700z	27/08 [491/39 73494.....68959] Out 0711z S2	Malc	SAT
	0700z	28/08 [491/00] Out 0703z S2	Malc	SUN
7469kHz	0450z	08/08 [413/00]	HfD	MON
7600kHz	1900z	04/07 [648/32 78842.....95897] Out 1910z S4	Malc	MON
	1900z	11/07 [648/00] Out 1903z S5	Malc, Gary H	MON
	1900z	18/07 [647/00] Out 1903z S5	Malc	MON
	1900z	21/07 [647/00] Out 1903z S6	Malc	THU
	1900z	25/07 [641/00] Out 1903z S2	Malc	MON
	1900z	28/07 [649/00] Out 1903z S5	Malc	THU
	1900z	01/08 [644/00] Out 1903z S5	Malc	MON
	1900z	04/08 [648/00] Out 1903z S5	Malc	THU
	1900z	11/08 [643/00] Out 1903z S5	Malc	WED
	1900z	15/08 [640/00] Out 1903z S3	Malc	MON
	1900z	18/08 [647/00] Out 1903z S7	Malc	THU
	1900z	29/08 [644/00] Out 1903z S9+QRM	Malc	MON
7863kHz	1715z	01/07 [974/00] Out 1718z S3	Malc	FRI
	1715z	06/07 [974/00] Out 1718z S4	Malc	WED
	1715z	08/07 [977/00] Out 1718z S3	Malc	FRI
	1715z	13/07 [974/00] Out 1718z S5	Malc	WED
	1715z	15/07 [976/00] Out 1718z S6	Malc	FRI
	1715z	20/07 [978/00] Out 1818z S4	Malc	WED
	1715z	22/07 [975/00] Out 1718z S3	Malc	FRI
	1715z	27/07 [970/35 56006 39462 20410 55784 63592 42881 13806.....66727 22751] Out 1725z S3	Malc	WED

	1715z	29/07 [970/35 56006etc] repeat of Wednesday	Malc, Gary H	FRI
	1715z	03/08 [974/00] Out 1718z S3	Malc	WED
	1715z	05/08 [978/00] Out 1718z S3	Malc, Gary H	FRI
	1715z	10/08 [974/40 09234.....56173] Out 1726z S3	Malc	WED
	1715z	17/08 [978/00] Out 1718z S5	Malc	WED
	1715z	19/08 [977/00] Out 1718z S5	Malc	FRI
	1715z	26/08 [975/00] Out 1718z S4	Malc	FRI
	1715z	31/08 [974/00] Out 1718z S6	Malc	WED
8088kHz	1730z	14/07 [418/34 57654.....91198] Out 1740z S3	Malc	THU
	1730z	21/07 [413/00] Out 1733z S2	Malc	THU
	1730z	28/07 [411/00] Out 1733z S4	Malc	THU
	1730z	04/08 [410/32 16246.....57790] Out 1740z S3	Malc	THU
	1730z	11/08 [415/00] Out 1733z S3	Malc	WED
	1730z	18/08 [412/00] Out 1733z S7	Malc, Gary H	THU
8091kHz	0645z	05/07 [512/00] Out 0648z S3	Malc, RNGB	TUE
	0645z	07/07 [517/00] Out 0648z S3	Malc	THU
	0645z	12/07 [517/00] Out 0648z S3	Malc	TUE
	0645z	14/07 [512/00] Out 0648z S3	Malc	THU
	0645z	19/07 [518/33 27341.....16092] Out 0655z S5	Malc	TUE
	0645z	21/07 [518/33 27341....etc] Repeat of Tuesday	Malc	THU
	0645z	26/07 [519/00] Out 0648z S2	Malc	TUE
	0645z	28/07 [514/00] Out 0648z S2	Malc	THU
	0645z	02/08 [515/00] Out 0648z S3	Malc	TUE
	0645z	04/08 [519/00] Out 0648z S2+QRM	Malc	THU
	0645z	09/08 [510/35 92842.....39684] Out 0655z S3	Malc	TUE
	0645z	11/08 [510/35 92842....etc] Repeat of Tuesday	Malc	WED
	0645z	16/08 [517/00]	RNGB, Malc	MON
	0645z	18/08 [512/00] Out 0648z S2	Malc	THU
	0645z	30/08 [519/00] Out 0648z S2	Malc	TUE
8545kHz	1045z	04/07 [696/00] Out 1048z S2	Malc	MON
	1045z	06/07 [698/00] Out 1048z S3	Malc	WED
	1045z	11/07 [692/00] Out 1048z S2	Malc	MON
	1045z	13/07 [694/00] Out 1048z S2	Malc	WED
	1045z	20/07 [693/00] Out 1048z S2	Malc	WED
	1045z	25/07 [697/39 85483..... 07807] Out 1056z S2	Malc	MON
	1045z	27/07 [697/39 85483....etc] repeat of Monday	Malc	WED
	1045z	01/08 [690/00] Out 0848z S2	Malc	MON
	1045z	03/08 [691/00] Out 1048z S2	Malc	WED
	1045z	10/08 [697/00] Out 1048z S3 (Dutch SDR)	Malc	WED
	1045z	15/08 [697/00] Out 1048z S2	Malc	MON
	1045z	17/08 [696/00] Out 1048z S2	Malc	WED
	1045z	31/08 [690/00] Out 1048z S2 (Dutch SDR)	Malc	WED
8680kHz	0700z	01/07 [574/00] Out 0703z S2	Malc	FRI
	0700z	05/07 [573/39 10566.....45407] Out 0711z S4	Malc, RNGB	TUE
	0700z	08/07 [573/39 10566....etc] Repeat of Tuesday	Malc	FRI
	0700z	12/07 [574/00] Out 0703z S3	Malc	TUE
	0700z	15/07 [571/00] Out 0703z S4	Malc	FRI
	0700z	19/07 [575/00] Out 0703z S5	Malc	TUE
	0700z	22/07 [571/00] Out 0703z S3	Malc, RNGB	FRI
	0700z	26/07 [575/00] Out 0703z S5	Malc	TUE
	0700z	29/07 [571/00] Out 0703z S2	Malc	FRI
	0700z	02/08 [579/00] Out 0703z S3	Malc	TUE
	0700z	05/08 [573/00] Out 0700z S2	Malc	FRI
	0700z	09/08 [537/37 77475.....68018] Out 0711z	Malc	TUE
	0700z	16/08 [571/00] Out 0703z	RNGB, Malc	TUE
	0700z	19/08 [574/00] Out 0703z S4	Malc	FRI
	0700z	26/08 [571/00] Out 0703z S3	Malc	FRI
	0700z	30/08 [577/00] Out 0703z S2	Malc	TUE
9052kHz	0900z	04/07 [534/00] Out 0903z S4	Malc	MON
	0900z	06/07 [532/00] Out 0903z S2	Malc	WED
	0900z	11/07 [530/00] Out 0903z S3	Malc	MON
	0900z	13/07 [537/00] Out 0903z S5	Malc	WED
	0900z	18/07 [538/37 43339.....11174] Out 0910z S3	Malc	MON
	0900z	20/07 [538/37 43339....etc] Repeat of Monday	Malc	WED
	0900z	25/07 [535/00] Out 0903z S4	Malc	MON
	0900z	27/07 [533/00] Out 0903z S2	Malc	WED
	0900z	01/08 [533/00] Out 0903z S3	Malc	MON
	0900z	03/08 [534/00] Out 0903z S3	Malc	WED
	0900z	10/08 [536/00] Out 0903z S5	Malc	WED
	0900z	15/08 [532/00] Out 0903z S3	Malc	MON
	0900z	17/08 [536/00] Out 0903z S2	Malc	WED
	0900z	29/08 [534/00] Out 0903z S2	Malc	MON

9150kHz	0600z	01/07 [350/00] Out 0603z S3	Malc	FRI
	0600z	03/07 [358/00] Out 0603z S3	Malc	SUN
	0600z	08/07 [350/00] Out 0603z S2	Malc, RNGB	FRI
	0600z	17/07 [350/00] Out 0603z S2	Malc	SUN
	0600z	22/07 [351/31 84973.....82753] Out 0610z S3	Malc	FRI
	0600z	24/07 [351/31 84973.....etc] repeat of Friday	Malc	SUN
	0600z	29/07 [352/00] Out 0603z S2	Malc	FRI
	0600z	14/08 [496/00] Out 0603z S2	Malc	SUN
9610kHz	1910z	01/07 [616/00] Out 1913z S3	Malc	FRI
	1910z	03/07 [612/00] Out 1913z S9	Malc	SUN
	0745z	04/07 [267/00] Out 0748z S8	Malc	MON
	1910z	08/07 [617/00] Out 1913z S7	Malc	FRI
	0745z	11/07 [260/00] Out 0748z S5	Malc	MON
	1910z	15/07 [610/00] Out 1913z S5	Malc	FRI
	1910z	17/07 [614/00] Out 1913z S5	Malc	SUN
	0745z	18/07 [268/00] Out 0748z S4	Malc	MON
	1910z	22/07 [610/30 98737.....43690] Out 1909z S4	Malc	FRI
	1910z	24/07 [610/30 98737.....etc] Repeat of Friday	Malc	SUN
	0745z	25/07 [266/32 31869.....70832] Out 0755z S6	Malc	MON
	1910z	29/07 [617/00] Out 1913z S7	Malc	FRI
	1910z	31/07 [616/00]	Gary H	SUN
	0745z	01/08 [262/34 31905 49236 96783 52097 98248 46631 07965.....32265 38343] Out 0755z S5	RNGB, Malc	MON
	1910z	05/08 [612/00] Out 1913z S3	Malc	FRI
	1910z	07/08 [611/00] Out 1913z S7	Malc	SUN
	1910z	12/08 [612/32 31219.....10994] Out 1920z S6	Malc	FRI
	1910z	14/08 [612/32 31219.....etc] Repeat of Friday	Malc	SUN
	0745z	15/08 [269/00] Out 0748z S3	Malc	MON
	1910z	19/08 [613/00] Out 1913z S4+QRM (Finnish SDR)	Malc	FRI
	1910z	21/08 [610/00]	RNGB	SUN
	1910z	21/08 [610/00] Out 1913z S3+QRM	Malc	SUN
	1910z	26/08 [618/00] Out 1913z S9+QRM	Malc	FRI
	1910z	28/08 [617/00] Out 1913z S7+QRM	Malc	SUN
	0745z	29/08 [260/00] Out 0748z S5	Malc	MON
10356kHz	1530z	07/07 [264/00] Out 1533z S9	Malc	THU
	1530z	14/07 [262/00] Out 1533z S3	Malc	THU
	1530z	21/07 [268/00] Out 1533z S4	Malc	THU
	1530z	28/07 [266/32 31869.....70832] Out 1540z S4	Malc	THU
	1530z	11/08 [266/00] Out 1533z S5	Malc, Gary H, HfD	WED
	1530z	18/08 [264/00] Out 1533z S9	Malc	THU
10429kHz	0715z	01/07 [634/00] Out 0718z S3	Malc	FRI
	0715z	05/07 [633/00] Out 0718z S3	Malc	TUE
	0715z	08/07 [639/00] Out 0718z S3	Malc	FRI
	0715z	12/07 [637/00] Out 0718z S3	Malc	TUE
	0715z	15/07 [634/00] Out 0718z S4	Malc	FRI
	0715z	19/07 [637/34 50312.....56714] Out 0725z S4 QSB2	Malc	TUE
	0715z	22/07 [637/34 50312.....etc] Repeat of Tuesday	Malc	FRI
	0715z	26/07 [631/00] Out 0718z S5	Malc	TUE
	0715z	29/07 [639/00] Out 0718z S3	Malc	FRI
	0715z	02/08 [635/00] Out 0715z S3	Malc	TUE
	0715z	05/08 [636/00] Out 0718z S6	Malc	FRI
	0715z	09/08 [634/00] Out 0718z S6	Malc	TUE
	0715z	12/08 [634/00] Out 0718z S2	Malc	FRI
	0715z	16/08 [637/00]	RNGB, Malc	TUE
	0715z	19/08 [639/00] Out 0718z S5	Malc	FRI
	0715z	26/08 [639/32 07829.....63481] Out 0726z S2	Malc	FRI
	0715z	30/08 [636/00] Out 0718z S5	Malc	TUE
12153kHz	1000z	01/07 [304/00] Out 1003z S3	Malc	FRI
	1000z	05/07 [306/21 67287.....88586] Out 1008z S3	Malc	TUE
	1000z	08/07 [306/21 67287.....etc] Repeat of Tuesday	Malc	FRI
	1000z	12/07 [302/00] Out 1003z S3	Malc	TUE
	1000z	15/07 [309/00] Out 1003z S3	Malc	FRI
	1000z	22/07 [302/00] Out 1003z S3	Malc	FRI
	1000z	26/07 [308/00] Out 1003z S2	Malc	TUE
	1000z	29/07 [306/00] Out 1003z S5	Malc	FRI
	1000z	05/08 [300/00 19911.....47958] Out 1010z S2	Malc	FRI
	1000z	09/08 [306/00] Out 1003z S5	Malc	TUE
	1000z	12/08 [304/00] Out 1003z S6	Malc	FRI
	1000z	16/08 [302/00] Out 1003z S3	Malc	TUE
	1000z	19/08 [308/00] Out 1003z S3	Malc	FRI
	1000z	26/08 [309/00] Out 1003z S4 (Dutch SDR)	Malc	FRI
	1000z	30/08 [304/00] Out 1003z S3	Malc	TUE
12229kHz	1815z	01/07 [926/31 68673 75382 00972 29681 70845 70523 03609.....00104 67686] Out 1824z S3	Gary H, Malc,	FRI
	1815z	08/07 [926/00] Out 1818z S3	Malc	FRI
	1815z	15/07 [929/00] Out 1818z S5	Malc	FRI
	1815z	17/07 [925/00] Out 1818z S7	Malc, Gary H	SUN
	1815z	22/07 [927/00] Out 1818z S4	Malc	FRI
	1815z	24/07 [927/00] Out 1818z S3	Malc	SUN
	1815z	29/07 [922/00] Out 1818z S6	Malc, Gary H	FRI

	1815z	05/08 [924/00] Out 1818z S5	Malc	FRI
	1815z	07/08 [922/00] Out 1818z S9	Malc	SUN
	1815z	12/08 [920/00] Out 1818z S4	Malc	FRI
	1815z	14/08 [927/00]	Gary H	SUN
	1815z	21/08 [927/00] Out 1818z S9	Malc	SUN
	1815z	26/08 [927/33 44845.....50769] Out 1825z S6	Malc	FRI
	1815z	28/08 [927/33 44845....etc] Repeat of Friday	Malc	SUN
12815kHz	0845z	04/07 [713/00] Out 0848z S3	Malc	MON
	0845z	06/07 [714/00] Out 0848z S2	Malc	WED
	0845z	11/07 [718/00] Out 0848z S3	Malc	MON
	0845z	13/07 [715/00] Out 0848z S2	Malc	WED
	0845z	18/07 [713/32 52481.....64602] Out 0855z S6	Malc	MON
	0845z	20/07 [713/32 52481.....etc] Repeat of Monday	Malc	WED
	0845z	25/07 [710/00] Out 0848z	dMHz	MON
	0845z	25/07 [710/00] Out 0848z S3	Malc	MON
	0845z	01/08 [718/00] Out 0848z S3	Malc	MON
	0845z	03/08 [715/00] Out 0848z S2	Malc	WED
	0845z	10/08 [716/31 97410.....31477] Out 0855z S2	Malc	WED
	0845z	15/08 [710/00] Out 0848z S3	Malc	MON
	0845z	17/08 [714/00] Out 0848z S2	Malc	WED
	0845z	29/08 [711/00] Out 0848z S2	Malc	MON
	0845z	31/08 [711/00] Out 0848z S2	Malc	WED
12984Khz	1430z	05/07 [918/00] Out 1433z S3	Gary H, Malc	TUE
	1430z	09/07 [911/00] Out 1433z S4	Malc	SAT
	1430z	12/07 [410/00] Out 1433z S2	Malc	TUE
	1430z	16/07 [919/00] Out 1433z S3	Malc	SAT
	1430z	19/07 [917/00] Out 1433z S3	Malc	TUE
	1430z	23/07 [912/00] Out 1433z S4	Malc, dMHz	SAT
	1430z	26/07 [917/36 33517 55184 25582 54677 86777 40828 53623 65847.....95240 10907]	Gary H, Malc	TUE
	1430z	30/07 [917/36 33517.....etc] Repeat of Tuesday	Malc	SAT
	1430z	02/08 [914/00] Out 1433z S4	Malc, Gary H	TUE
	1430z	06/08 [914/00] Out 1433z S3	Malc	SAT
	1430z	09/08 [915/00] Out 1433z S3	Malc	TUE
	1430z	13/08 [919/00] Out 1433z S5	Malc	SAT
	1430z	16/08 [914/36 62459.....66844] Out 1441z S5	Malc, Ary	TUE
	1430z	20/08 [914/36 62459.....etc] Repeat of Tuesday	Malc	SAT
	1430z	27/08 [911/00] Out 1433z S3	Malc	SAT
	1430z	30/08 [912/00] Out 1433z S3	Malc	TUE
14410kHz	1745z	03/07 [247/00] Out 1748z S3	Malc, Gary H	SUN
	1745z	04/07 [240/00] Out 1748z S2	Malc	MON
	1745z	11/07 [242/00] Out 1748z S2+QRM	Malc	MON
	1745z	17/07 [245/00] Out 1748z S9	Malc	SUN
	1745z	18/07 [248/31 43812.....52873] Out 1755z S2+QRM	Malc	MON
	1745z	24/07 [248/31 43812.....etc] Repeat of Monday	Malc	SUN
	1745z	25/07 [242/00] Out 1748z S2	Malc	MON
	1745z	31/07 [245/00]	Gary H	SUN
	1745z	01/08 [249/00] Out 1748z S5	Malc	MON
	1745z	14/08 [247/00] Out 1748z S7	Malc, Gary H	SUN
	1745z	15/08 [247/00] Out 1748z S3+QRM	Malc	MON
	1745z	21/08 [246/00] Out 1748z S3+QRM	Malc	SUN
	1745z	28/08 [242/40 34414.....03229] Out 1756z S9	Malc	SUN
	1745z	29/08 [246/00] Out 1748z S2	Malc	MON
14575kHz	1645z	05/07 [331/00] Out 1648z S2	Malc	TUE
	1645z	07/07 [333/00] Out 1648z S2	Malc	TUE
	1645z	19/07 [332/00] Out 1648z S3 (Polish SDR)	Malc	TUE
	1645z	26/07 [331/32 51835 14430 69014 11835 77369 39326 21127 21546.....96234 46323] Out 1655z	Gary H, Malc	TUE
	1645z	28/07 [331/32 51835.....etc] Repeat of Tuesday	Malc	THU
	1645z	02/08 [337/00] Out 1748z S3	Malc, Gary H	TUE
	1645z	04/08 [335/00]	Gary H	THU
	1645z	09/08 [335/00] Out 1648z S2	Malc	TUE
	1645z	11/08 [338/00] Out 1748z S3 (Dutch SDR)	Malc	WED
	1645z	16/08 [331/00] Out 1648z S2	Malc, Gary H	TUE
	1645z	18/08 [331/00] Out 1748z S2 (Dutch SDR)	Malc	THU
	1645z	23/08 [338/37 29040 63553 53093 72487 89530 36742 32371 52812..... 63344 09541]	Gary H	TUE
	1645z	30/08 [335/00] Out 1648z S2 (Dutch SDR)	Malc	TUE
14940kHz	0745z	05/07 [225/31 92335.....37299] Out 0755z S4	Malc, RNGB	TUE
	0745z	07/07 [225/31 92335.....etc] Repeat of Tuesday	Malc	THU
	0745z	12/07 [228/00] Out 0748z S4	Malc	TUE
	0745z	14/07 [229/00] Out 0748z S7	Malc	THU
	0745z	19/07 [220/00] Out 0748z S4	Malc	TUE
	0745z	21/07 [228/00] Out 0748z S2 + QRM	Malc	THU
	0745z	26/07 [221/00] Out 0748z S3	Malc	TUE
	0745z	28/07 [225/00] Out 0748z S5	Malc	THU
	0745z	02/08 [227/00] Out 0748z S4	Malc	TUE
	0745z	04/08 [221/00] Out 0748z S3	Malc	THU
	0745z	09/08 [225/37 03149.....04252] Out 0756z S4	Malc	TUE
	0745z	16/08 [221/00] Out 0748z S3	Malc	TUE
	0745z	18/08 [221/00] Out 0748z S3	Malc	THU

	0745z	30/08 [225/00] Out 0748z S4		Malc	TUE
14972kHz	0845z	05/07 [157/00] Out 0848z S3		Malc	TUE
	0845z	07/07 [157/00] Out 0848z S4		Malc	THU
	0845z	12/07 [152/00] Out 0848z S3		Malc	TUE
	0845z	14/07 [154/00] Out 0848z S4		Malc	THU
	0845z	19/07 [150/22 42159.....88825] Out 0853z S3		Malc	TUE
	0845z	21/07 [150/22 42159....etc] Repeat of Tuesday		Malc	THU
	0845z	26/07 [159/00] Out 0848z S5		Malc	TUE
	0845z	28/07 [156/00] Out 0848z S5		Malc	THU
	0845z	02/08 [150/22 93181.....27275] Out 0853z S4		Malc	TUE
	0845z	04/08 [150/22 93181....etc] Repeat of Tuesday		Malc	THU
	0845z	09/08 [157/00] Out 0848z S5		Malc	TUE
	0845z	11/08 [151/00] Out 0848z S4		Malc	WED
	0845z	16/08 [159/00] Out 0848z S4		Malc	TUE
	0845z	18/08 [155/00] Out 0848z S4		Malc	THU
	0845z	30/08 [159/00] Out 0848z S3		Malc	TUE
14984kHz	1430z	02/07 [912/00] Out 1433z S3		Malc	SAT
15720kHz	0745z	01/07 [343/00] Out 0748z S4		Malc, RNGB	FRI
	0830z	01/07 [184/00] Out 0833z S3		Malc, RNGB	FRI
	0830z	04/07 [180/00] Out 0833z S2		Malc	MON
	0745z	06/07 [344/00] Out 0748z S3		Malc	WED
	0745z	08/07 [348/00] Out 0748z S3		Malc	FRI
	0830z	08/07 [188/00] Out 0833z S2		Malc	FRI
	0830z	11/07 [188/32 46938.....27621] Out 0840z S4		Malc	MON
	0745z	13/07 [348/00] Out 0748z S3		Malc	WED
	0745z	15/07 [340/00] Out 0748z S5		Malc	FRI
	0830z	15/07 [188/32 46938.....27621] Out 0840z S4		Malc	FRI
	0830z	18/07 [181/00] Out 0833z S4		Malc	MON
	0745z	20/07 [348/00] Out 0748z S2		Malc	WED
	0745z	22/07 [348/00] Out 0748z S2		Malc	FRI
	0830z	25/07 [182/00] Out 0833z S2		Malc	MON
	0745z	27/07 [345/32 07322.....08117] Out 0755z S3		Malc	WED
	0745z	29/07 [434/32 07322....etc] Repeat of Wednesday		Malc	FRI
	0830z	29/07 [180/00] Out 0833z S3		Malc	FRI
	0830z	01/08 [180/00] Out 0833z S2		Malc	MON
	0745z	03/08 [344/33 66205 27216 94769 72683 86638 75320 13986 70027.....50069] Out 0755z S3		RNGB, Malc	WED
	0745z	05/08 [344/33 66205....etc][Repeat of Wednesday		Malc	FRI
	0830z	05/08 [184/00] Out 0833z S3		Malc	FRI
	0745z	12/08 [344/00] Out 0748z S2		Malc	FRI
	0830z	12/08 [188/00] Out 0833z S2		Malc	FRI
	0745z	10/08 [347/00] Out 0748z S4		Malc	WED
	0830z	15/08 [182/29 07631.....45692] Out 0839z S4		Malc	MON
	0745z	17/08 [343/00] Out 0748z S4		Malc	WED
	0745z	19/08 [342/00] Out 0748z S3		Malc	FRI
	0745z	26/08 [340/00] Out 0748z S2		Malc	FRI
	0830z	29/08 [183/00] Out 0833z S3		Malc	MON
	0745z	31/08 [340/00] Out 0748z S2 (Finnish SDR)		Malc	WED
15800kHz	0640z	04/07 [944/00] Out 0643z S2 (Dutch SDR)		Malc	MON
	0640z	06/07 [948/00] Out 0643z S3		Malc	WED
	0640z	11/07 [944/00] Out 0643z S3		Malc	MON
	0640z	13/07 [942/00] Out 0643z S4		Malc	WED
	0640z	18/07 [949/00] Out 0643z S2		Malc	MON
	0640z	20/07 [948/00] Out 0643z S3		Malc	WED
	0640z	25/07 [944/35 40341.....42265] Out 0650z S2 (Dutch SDR)		Malc	MON
	0640z	27/07 [944/35 40341....etc] Repeat of Monday		Malc	WED
	0640z	01/08 [946/00] Out 0643z S3		Malc	MON
	0640z	03/08 [940/00] Out 0643z S3		Malc	WED
	0640z	10/08 [946/00] Out 0643z S3		Malc	WED
	0640z	15/08 [941/31 26962.....50337] Out 0650z S2		Malc	MON
	0640z	17/08 [941/31 26962....etc] Repeat of Monday		Malc	WED
	0640z	29/08 [944/00] Out 0643z S2 (Finnish SDR)		Malc	MON
	0640z	31/08 [949/00] Out 0643z S2 (Dutch SDR)		Malc	WED
17378kHz	0820z	05/07 [133/00] Out 0823z S3		Malc, RNGB	TUE
	0820z	06/07 [130/00] Out 0823z S5		Malc	WED
	0820z	12/07 [132/00] Out 0823z S9 (Finnish SDR)		Malc	TUE
	0820z	13/07 [136/00] Out 0823z S3		Malc	WED
	0820z	19/07 [133/00] Out 0823z S3		Malc	TUE
	0820z	26/07 [132/36 72581.....07925] Out 0830z S3		Malc	TUE
	0820z	27/07 [132/36 72581....etc] Repeat of Tuesday		Malc	WED
	0820z	02/08 [133/00] Out 0823z S4		Malc	TUE
	0820z	03/08 [134/00] Out 0823z S3		Malc	WED
	0820z	09/08 [130/00] Out 0823z S5		Malc	TUE
	0820z	10/08 [131/00] Out 0823z S3 (Finnish SDR)		Malc	WED
	0820z	16/08 [132/00] Out 0823z S2		Malc	TUE
	0820z	17/08 [138/00] Out 0823z S3		Malc	WED
	0820z	30/08 [132/00] Out 0823z S2		Malc	TUE
	0820z	31/08 [135/00] Out 0823z S3		Malc	WED

18030kHz	0715z	04/07 [752/00] Out 0718z S2	(Dutch SDR)	Malc	MON
	0715z	06/07 [759/00] Out 0718z S4		Malc, RNGB	WED
	0715z	11/07 [755/34 77791.....86369] Out 0725z S5		Malc	MON
	0715z	13/07 [755/34 77791.....etc] Repeat of Monday		Malc	WED
	0715z	18/07 [755/00] Out 0718z S2		Malc	MON
	0715z	20/07 [759/00] Out 0718z S3		Malc, RNGB	WED
	0715z	25/07 [753/00] Out 0718z S2	(Dutch SDR)	Malc	MON
	0715z	27/07 [753/00] Out 0718z S3		Malc	WED
	0715z	01/08 [751/00] Out 0718z S4		Malc	MON
	0715z	03/08 [755/00] Out 0718z S3		Malc	WED
	0715z	10/08 [750/34 55362.....11147] Out 0725z S4		Malc	WED
	0715z	15/08 [753/00] Out 0718z S2		Malc	MON
	0715z	17/08 [751/00] Out 0718z S2		Malc	WED
	0715z	24/08 [759/00]		RNGB	WED
	0715z	29/08 [754/00] Out 0718z S2		Malc	MON
	0715z	31/08 [759/00] Out 0718z S2	(Dutch SDR)	Malc	WED

PoSW offers his logs and analysis:

4783 kHz:- This frequency still suffering from interference, best described as an intermittent raucous noise of several seconds on and perhaps a bit longer off, always very strong and must be the same signal as that reported by 'E' in En131, "around 4785 kHz".

6-July-22, Wed:- 1910 UTC, "399/00".
9-July-22, Sat:- 1910 UTC, "399/00".
23-July-22, Sat:- 1910 UTC, "393/33", message.
13-July-22, Wed:- 1910 UTC, "391/00".
27-July-22, Wed:- 1910 UTC, "395/00".
30-July-22, Sat:- 1910 UTC, "396/00".
6-Aug-22, Sat:- 1910 UTC, "390/00".
20-Aug-22, Sat:- 1910 UTC, "394/00".
27-Aug-22, Sat:- 1910 UTC, "396/00", good signal apart from the above mentioned interference which was even stronger.

5409 kHz:- Always a strong signal, the strongest E11 at the moment.
7-July-22, Thu:- 2000 UTC, "525/00".
10-July-22, Sun:- 2000 UTC, "528/00".
24-July-22, Sun:- 2000 UTC, "528/35", message, "out" at 2010:10s UTC.
28-July-22, Thu:- 2000 UTC, "527/00".
31-July-22, Sun:- 2000 UTC, "520/00".
4-Aug-22, Thu:- 2000 UTC, "522/00".
7-Aug-22, Sun:- 2000 UTC, "527/00".
18-Aug-22, Thu:- 2000 UTC, "525/00".

7600 kHz:- Shares a frequency with a weak broadcast station, E11 always much stronger.
4-July-22, Mon:- 1900 UTC, "648/32", "Out" at 1909:40s.
7-July-22, Thu:- 1900 UTC, "648/32" again.
14-July-22, Thu:- 1900 UTC, "647/00".
25-July-22, Mon:- 1900 UTC, "641/00".
28-July-22, Thu:- 1900 UTC, "649/00".
15-Aug-22, Mon:- 1900 UTC, "640/00".
18-Aug-22, Thu:- 1900 UTC, "647/00".

9610 kHz:-
8-July-22, Fri:- 1910 UTC, "617/00", strong enough to over-ride local interference.
10-July-22, Sun:- 1910 UTC, "613/00".
29-July-22, Fri:- 1910 UTC, "617/00".
31-July-22, Sun:- 1910 UTC, "616/00".
7-Aug-22, Sun:- 1910 UTC, "611/00".
12-Aug-22, Fri:- 1910 UTC, "612/32" (?), message, very weak, difficult copy.

12229 kHz:-
24-July-22, Sun:- 1815 UTC, "927/00", strong signal.
29-July-22, Fri:- 1815 UTC, "922/00".
31-July-22, Sun:- 1815 UTC, "922/00".
5-Aug-22, Fri:- 1815 UTC, "924/00".
7-Aug-22, Sun:- 1815 UTC, "922/00".

12984 kHz:-
2-July-22, Sat:- 1430 UTC, "912/00".
5-July-22, Tue:- 1430 UTC, "918/00".
9-July-22, Sat:- 1430 UTC, "911/00".
16-July-22, Sat:- 1430 UTC, "919/00".
6-Aug-22, Sat:- 1430 UTC, "914/00".
20-Aug-22, Sat:- 1430 UTC, "914/36", message, weak signal.
27-Aug-22, Sat:- 1430 UTC, "911/00", good signal.

17378 kHz:-
5-July-22, Tue:- 0820 UTC, "133/00".
13-July-22, Wed:- 0820 UTC, "136/00".
26-July-22, Tue:- 0820 UTC, "132/36", message, weak, difficult copy.
27-July-22, Wed:- 0820 UTC, "132/36" again.
2-Aug-22, Tue:- 0820 UTC, "133/00".
3-Aug-22, Wed:- 0820 UTC, "134/00".

16-Aug-22, Tue:- 0820 UTC, “132/00”.

18030 kHz:-

13-July-22, Wed:- 0715 UTC, “755/34”, message, “out” just after 0725 UTC.

27-July-22, Wed:- 0715 UTC, “753/00”.

3-Aug-22, Wed:- 0715 UTC, “755/00”.

10-Aug-22, Wed:- 0715 UTC, “750/34”, message, weak signal.

17-Aug-22, Wed:- 0715 UTC, “751/00”.

E17z

APPARENTLY CLOSED

S06

PoSW's logs greatly reflect Richard's comments on S06 activity

As with the related E06 English Man number station, a mere shadow of its former self in terms of activity, first + third Fridays in the month seems to be the only regular schedule:-

1-July-22:- 2000 UTC, 9912 kHz, expected frequency for the first sending same as in May and June. Very weak signal, unreadable, only detected as a heterodyne from the carrier with the RX in USB mode and the tuning slightly on the LF side. Went off shortly after 2004z which suggests this was S06.

2100 UTC, 7916 kHz, much better, good signal, “319 319 319 00000”.

15-July-22:- 2000 UTC, 9912 kHz, “319 319 319 00000”, good signal at first then became weaker.

2100 UTC, 7916 kHz, much stronger, S-meter well over the “9”.

Moved back by one hour in August:-

5-Aug-22:- 1900 UTC, 9912 kHz, “319 319 319 00000”, strong enough to be heard above local interference.

2000 UTC, 7916 kHz, strong, peaking over S9 with QSB.

19-Aug-22:- 1900 UTC, 9912 kHz, “319 319 319 00000”, weak.

2000 UTC, 7916 kHz, much stronger.

Onto Richard's column, it's size illustrating the changes to S06:

S06 log July 2022

Thursdays (Repeats Friday)	0830z	15875kHz	0930z	13469kHz (frequencies may vary +/- 15kHz)
01/07	'842' 701 38 89384 57162 06010 65090 85043 84141 84231 72342 99553 35736 76394 98929 35479 00921 83106 01582 19903 07260 78009 02595 09686 40997 76967 79495 58557 76223 52654 81764 19451 80315 30496 54283 80533 87826 26899 72225 58360 701 38 00000			
07/07	'842' 561 39 70946 02360 9851? 58149 92758 83552 29121 54229 87500 24581 48866 16117 63437 90173 73464 57715 41720 19268 38485 36344 81284 43234 59261 96018 14000 55382 47138 92468 88511 23917 43016 04584 46213 65539 54109 61967 77779 21883 04871 561 39 00000			
21/07	'842' 650 41 84776 91493 19489 16511 36774 88502 97358 08568 03462 18301 49939 98296 30686 69475 91917 92904 98300 35410 35791 57784 22797 21188 95133 76590 76434 33012 00453 74309 21324 42340 88595 07997 81874 41902 51613 54880 04070 35813 56046 52518 74992 650 41 00000			
28/07	'842' 137 42 94773 08026 38714 39634 33186 28666 84324 77279 57198 66607 58264 42254 29051 13793 98929 94963 67936 26994 69264 20518 26333 78251 52681 27066 75426 50712 76026 79380 66795 15823 39287 66140 62560 52808 56720 24338 51169 96367 39103 69250 91021 23533 137 42 00000			

Fridays (1st & 3rd)	2000z	9912kHz	2100z	7916kHz
01/07	'319' 00000			
15/07	'319' 00000			

S06 log August 2022

Thursdays (Repeats Friday)	0830z	16327kHz	0930z	13875kHz (frequencies may vary +/- 15kHz)
04/08	'842' 569 43 68746 32745 69853 99285 82545 37444 20589 82832 67875 93387 03323 94290 27654 72583 40167 79629 ???47 20479 11472 81178 05319 43974 39595 24873 89298 37482 12986 10053 51139 50504 17804 35669etc (poor condx)			

Fridays (1st & 3rd)	1900z	9912kHz	2000z	7916kHz
05/08	'319' 00000			
19/08	'319' 00000			

Other transmissions:

S11a log July/August

5149kHz	0830z	02/07 [472/00] Konyetz 0833z S2	Malc	SAT
	0830z	03/07 [379/00] Konyetz 0833z S2	Malc	SUN
	0830z	09/07 [372/00] Konyetz 0833z S2	Malc	SAT
	0830z	16/07 [372/00] Konyetz 0833z S3 (Dutch SDR)	Malc	SAT
	0830z	17/07 [372/00] Konyetz 0833z S2	Malc	SUN
	0830z	23/07 [377/00] Konyetz 0833z S3 (Dutch SDR)	Malc	SAT
	0830z	30/07 [377/36 46388.....87991] Konyetz 0842z	Malc	SAT
	0830z	06/08 [373/00] Konyetz 0833z S3 (Finnish SDR)	Malc	SAT
	0830z	07/08 [376/00] Konyetz 0833z S2	Malc	SUN
	0830z	14/08 [370/35 84084.....10088] Konyetz 0841z S5 (Dutch SDR)	Malc	SUN
	0830z	21/08 [373/00] Konyetz 0833z S2	Malc	SUN
	0830z	27/08 [371/00] Konyetz 0833z S3 (Dutch SDR)	Malc	SAT
	0830z	28/08 [371/00] Konyetz 0833z S3 (Dutch SDR)	Malc	SUN
6814kHz	0915z	01/07 [483/00] Konyetz 0918z S2	Malc	FRI
	0915z	04/07 [486/00] Konyetz 0918z S3	Malc	MON
	0915z	08/07 [483/00] Konyetz 0918z S3	Malc	FRI
	0915z	11/07 [481/00] Konyetz 0918z S2	Malc	MON
	0915z	15/07 [484/00] Konyetz 0918z S4 (Dutch SDR)	Malc	FRI
	0915z	18/07 [480/00] Konyetz 0918z S2	Malc	MON
	0915z	25/07 [483/37 77693.....07807] Konyetz 0926z S4+QRM (jamming ?) (Dutch SDR)	Malc	MON
	0915z	29/07 [483/37 77693.....etc] Repeat of Monday 0926z	Malc	FRI
	0915z	01/08 [483/35 29532.....73166] Konyetz 0927z S2	Malc	MON
	0915z	05/08 [483/35 29532.....etc] repeat of Monday	Malc	FRI
	0915z	12/08 [487/00] Konyetz 0918z S3	Malc	FRI
	0915z	15/08 [486/00] Konyetz 0918z S2	Malc	MON
	0915z	19/08 [481/00] Konyetz 0918z S2	Malc	FRI
	0915z	26/08 [482/00] Konyetz 0918z S3 (Dutch SDR)	Malc	FRI
	0915z	29/08 [481/00] Konyetz 0918z S3 (Dutch SDR)	Malc	MON
7772kHz	1400z	01/07 [429/00] Konyetz 1403z S2	Malc	FRI
	1400z	05/07 [420/00] Konyetz 1403z S4 (Dutch SDR)	Malc	TUE
	1400z	08/07 [425/00] Konyetz 1403z S2	Malc	FRI
	1400z	12/07 [424/34 88492.....27795] Konyetz 1416z S5 (Dutch SDR)	Malc	TUE
	1400z	15/07 [424/34 88492.....etc] Repeat of Tuesday	Malc	FRI
	1400z	19/07 [427/00] Konyetz 1403z S4 (Dutch SDR)	Malc	TUE
	1400z	22/07 [422/00] Konyetz 1403z S4 (Dutch SDR)	Malc	FRI
	1400z	29/07 [424/00] Konyetz 1403z S2	Malc	FRI
	1400z	05/08 [421/00] Konyetz 1403z S7 (Finnish SDR)	Malc	FRI
	1400z	09/08 [421/00] Konyetz 1403z S2	Malc	TUE
	1400z	12/08 [427/00] Konyetz 1403z S3 (Dutch SDR)	Malc	FRI
	1400z	19/08 [425/36 86693.....31557] Konyetz 1411z S4 (Finnish SDR)	Malc	FRI
	1400z	26/08 [421/00] Konyetz 1403z S3 (Dutch SDR)	Malc	FRI
	1400z	30/08 [425/00] Konyetz 1403z S4 (Dutch SDR)	Malc	TUE
9339kHz	0700z	04/07 [477/00] Konyetz 0703z S3	Malc	MON
	0700z	11/07 [471/00] Konyetz 0703z S3	Malc	MON
	0700z	14/07 [475/00] Konyetz 0703z S3	Malc	THU
	0700z	18/07 [477/30 35331.....77914] Konyetz 0710z S2	Malc	MON
	0700z	21/07 [477/30 35331.....etc] Repeat of Monday	Malc	THU
	0700z	25/07 [475/00] Konyetz 0703z S3	Malc	MON
	0700z	28/07 [475/00] Konyetz 0703z S3	Malc	THU
	0700z	01/08 [479/00] Konyetz 0703z S3	Malc, RNGB	MON
	0700z	04/08 [471/00] Konyetz 0703z S2	Malc	THU
	0700z	11/08 [476/00] Konyetz 0703z	RNGB	THU
	0700z	11/08 [476/00] Konyetz 0703z S5	Malc	WED
	0700z	15/08 [470/32 83966 to 28271] Konyetz 0711z S2	Malc	MON
	0700z	18/08 [470/32 83966 93780 47896 83041 73179 17163 16758 97802.....92452 28271]	RNGB, Malc	THU
	0700z	29/08 [475/00] Konyetz 0703z S2	Malc	MON
9968kHz	0445z	07/07 [793/00]	HfD	THU
12457kHz	1850z	02/07 [286/00] Konyetz 1853z S3	Malc	SAT
	1850z	06/07 [284/35 93397.....83978] Konyetz 1901z S9	Malc	WED
	1850z	09/07 [284/35 93397.....etc] Repeat of Wednesday	Malc	SAT
	1850z	13/07 [282/00] Konyetz 1853z S7	Malc, Gary H	WED
	1850z	16/07 [284/00] Konyetz 1853z S5	Malc	SAT
	1850z	20/07 [288/00] Konyetz 1853z S5	Malc	WED
	1850z	23/07 [285/00] Konyetz 1853z S5	Malc	SAT

1850z	27/07 [286/00] Konyetz 1853z S5	Malc	WED
1850z	30/07 [280/00] Konyetz 1853z S3	Malc	SAT
1850z	03/08 [282/32 73581.....36255] Konyetz 1901z S4	Malc	WED
1850z	06/08 [282/32 73581.....etc] Repeat of Wednesday	Malc	SAT
1850z	13/08 [282/00] Konyetz 1853z S9	Malc	SAT
1850z	10/08 [284/00] Konyetz 1853z S7	Malc	WED
1850z	17/08 [288/00] Konyetz 1853z S7	Malc	WED
1850z	27/08 [285/00] Konyetz 1853z S9	Malc	SAT
1850z	31/08 [287/00] Konyetz 1853z S5	Malc	WED
13537kHz 0510z	10/08 [651/00]	HfD	WED

V07

Sunday
July 2022

0300z	13521kHz	0320z	12121kHz	0340z	11421kHz
10/07	514 1 6918 112 67756 ... 44158 000 000			SDR Japan 0300z	Weak

514 514 514 1
6918 112
67756 47993 03698 68574 46595
39912 26770 43542 82855 95704
98629 40538 82972 46765 02234
02858 54979 24601 03226 89229
98265 51523 16227 95640 32950
29107 77414 28838 65533 92462
29321 40098 53497 25222 20677
68287 15566 96566 93314 70554
63073 95582 59475 14322 72914
50401 38362 41811 32777 69409
40921 24547 05188 31420 16482
33794 96135 29828 88048 30387
10692 42554 11202 56766 49849
33072 52204 23289 62921 92294
46540 74653 33503 31489 86551
05932 04024 25574 98570 81913
21112 23827 66519 53731 36104
13248 35601 83587 40052 05776
47913 90701 87415 10153 96913
92540 97855 19037 83231 81599
9199 77464 09637 73463 12032
79368 14459 75335 75363 09597
42362 44158 000 000 *Courtesy DanAR*

17/07	514 1 676 60 42129 ... 77395 000 000	SDR Japan 0300z	Weak, QSB2
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514 514 514 1
676 60
42129 40955 28997 10339 82496
62410 01684 13195 50609 25392
36318 15030 53424 57405 94418
30233 88644 23301 92002 37994
148?? 70788 35298 91948 36758
93449 03590 63444 77595 11642
03752 02487 19796 34789 38785
50816 98204 19136 01331 35452
75762 56802 18471 76660 13785
75247 82769 17245 14136 23473
98440 58372 29613 62889 92820
01570 95525 70214 01009 77395
000 000 *Courtesy DanAR*

13512kHz 0300z	24/07	SDR's from Japan busy or not available
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31/07	514 1 6564 126 69884 ... 49429 000 000	SDR Japan 0300z	Weak
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514 514 514 1
6564 126
69884 90020 62279 43384 85639
00945 09934 92801 39107 92567
29730 33630 56180 69887 76750
82494 86109 65307 71510 58891
35370 23971 68309 49331 22042
05716 98750 10517 66573 46921
84997 25807 07073 42678 10099
97289 08848 37740 94852 91495
54013 80684 70901 27025 71285
04372 32066 88790 13572 02207
14439 97134 38849 67913 91613
99966 54504 62832 76866 36668
10288 94844 61963 72168 45760
98980 39246 59561 59286 87496
93724 47585 78871 28488 93353
81026 92982 12918 73820 44893
29122 04311 44708 07748 36432
28419 30529 64864 57014 68863
31127 60335 92954 20582 66868
70404 40111 25785 82158 31552
19167 80400 64744 33829 50252
31687 27697 62480 06264 85228
94905 77393 85158 47546 47836
40139 90306 18963 31800 68335
67504 42038 07448 60089 17412
49429 000 000 *Courtesy DanAR*

August 2022

0300z	13464kHz	0320z	12164kHz	0340z	11564kHz
07/08	415 1 191 116 86309 ... 61183 000 000				SDR Japan 0300z Weak

415 415 415 1
191 116
86309 58318 30468 08094 39942
87255 23548 94889 31664 01230
23004 25743 41477 63010 51851
12817 79823 31092 08785 46712
99447 47755 75069 35595 86551
23517 30452 89353 32006 41864
91514 81437 00321 86304 93867
49819 66075 09429 81193 56672
56576 52329 84616 93670 32288
73344 36115 20128 97658 77814
04738 63459 73328 36492 06837
11861 81628 55355 43091 57199
68608 49524 04775 07117 85853
38898 75187 24159 70680 44193
56839 25855 11443 24993 98890
90982 45524 38945 29944 46865
07229 00385 75200 63586 26759
70052 51602 88501 37105 07769
22190 69147 05524 12682 79091
84487 88642 48943 56491 77076
67257 01891 24973 52113 30565
78754 26264 13256 86673 14545
92060 56578 84082 21012 44236
61183 000 000 *Courtesy DanAR*

Additional report fm H-FD:

Sun 07.08.2022 0300Z 13464 415:1-191/116= 86309 via KiwiSDR USA
Sun 07.08.2022 0320Z 12164 415:1 via KiwiSDR USA
Sun 07.08.2022 0340Z 11564 415:1 via KiwiSDR USA

14/08	0300z	415 1 447 140 91254 ... 87427 000 000	SDR Japan 0300z Weak, QRM1, QSB1
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415 415 415 1
447 140
91254 29245 35610 58134 66796
20687 21207 20121 25470 30467
13077 38321 27770 81193 45829
70189 84513 28325 35584 58421
52598 97612 96904 22516 34771
72688 30342 37896 15932 34836
92729 02890 79893 92743 86882
92255 98031 81874 22088 35847
14730 77380 28112 24439 36394
46986 42570 65426 67321 63373
62560 81121 49386 63161 66099
83765 70044 81064 08151 93827
64244 21880 83427 61062 71131
51467 55486 74192 69070 36086
87636 70609 79583 28096 10406
91580 68318 72177 03486 94336
18258 22740 19976 26862 94186
51238 12768 14852 43135 14433
56774 87921 33169 93010 26285
13040 46963 67998 84669 22568
99572 93148 49972 68741 02461
52132 69370 21695 38764 23944
15554 63489 27196 47926 31630
56610 06078 34687 36684 13027
84893 89134 50619 42674 16663
50986 02901 13974 04330 98060
74369 98260 98519 93045 18155
90587 70727 12724 16887 87427
000 000 *Courtesy DanAR*

21/08	415 1 3600 108 66503 ... 87477 000 000	SDR Japan 0300z Weak QRM1
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415 415 415 1
3600 108
66503 59642 12673 25587 51818
63067 43415 95138 23778 28645
29753 84586 07852 84388 22272
77867 57765 39765 41629 50154
41389 00904 42817 12755 50110
49073 01881 42576 58501 73227
58367 48816 86289 87860 89529
01779 83125 17487 12794 06731
39220 03903 11807 25231 59165
01627 07159 43681 60644 35026
50343 89237 75548 32701 64585
62073 34421 01148 34627 30531
56797 05536 78690 11009 39522
25946 29904 32088 06370 53257
00645 03097 42055 59349 16862
43141 95294 65569 99082 96613
20689 46402 84641 76332 64405
88188 00503 12858 78444 61429
34721 26226 56623 28768 20530
87389 13153 66534 53298 36166
04641 40745 16163 98834 54981
20099 04100 87477 000 000
Courtesy DanAR

V13

Nil Reports

V15

Nil Reports

North Korea Spy Numbers Broadcasting via Pyongyang BS

V24

Nil Reports

South Korean Intelligence.

V26

Nil Reports

Polytones

XPA1 c

Tuesday/Thursday

July 2022

0710z 10446kHz 0730z 11474kHz 0750z 12157kHz

05/07 367 1 00741 00206 80431 ... 57755

0710, 0730z Weak QSB5, 0750z Fair: [Poor condx]

07/07 367 1 00741 00206 80431 ... 57755

0710, 0710z Very weak QSB4, 0750z Fair QSB2

12/07 367 1 00753 00188 00705 ... 27543

0710,0730z Weak QSB3, 0750z Fair: [Poor condx]

14/07 367 1 00753 00188 00705 ... 27543

0710, 0720z Strong, 0740z Very strong

367 367 367 1 367 367 367 1 367 367 367 1

00753 00188 00705 66581 48095 00789 11498 03073 88677 24367
94602 18894 84542 09568 11097 84638 43664 98371 02645 47352
21316 06859 94101 34307 21607 83487 00923 85540 71395 43675
31065 24868 38846 36069 31373 33421 48849 56801 17258 34318
93845 09103 82388 02588 16785 56056 37511 95838 50047 24176
73305 45283 63965 33264 46757 54333 86352 49222 32830 36118
87978 77558 34297 73440

68553 89292 07830 56200 73621 29635 75842 97305 82122 51727
08922 62416 64791 53337 99939 72690 69752 14896 43818 69239
70614 84088 14221 56357 84911 56937 81321 12818 94415 82921
75528 26525 58145 11345 60607 21748 61691 88110 45358 66240
56249 97056 90176 61171 46311 23836 80881 19719 99409 10486
87659 09401 46842 22934 91682 94650 44946 14906 20350 36290
31356 17205 60303 23193

35903 69086 95969 29685 56148 13537 18562 50103 20960 82256
50324 37462 76866 61980 81030 40299 96027 25861 77551 29309
55112 51416 91321 39858 98017 90158 78088 59308 61226 15753
22518 10246 10590 49221 92484 91085 74322 59509 28449 97295
48846 27043 16828 50426 68803 73570 67839 12350 57868 08730
75901 55500 59698 25724 67388 10988 59245 99736 27670 84205
38417 92424 27543 *Courtesy PLdn*

19/07 367 1 00753 00188 00705 ... 27543

0710, 0720z Weak QSB3, 0740z Strong

21/07 367 1 00753 00188 00705 ... 27543

0710, 0720z Strong, 0740z Very strong

26/07 NOT MONITORED, OFF WATCH

28/07 NOT MONITORED, OFF WATCH

August 2022

0710z 10234kHz 0730z 11511kHz 0750z 12117kHz

02/08 829 1 01587 00094 36468 ... 37437

Weak QSB3

829 829 829 1 829 829 829 1 829 829 829 1

01587 00094 36468 42171 15348 37431 14809 29253 81584 32458
30150 12616 57187 55265 75836 42306 32721 22238 82044 13088
78626 77431 70855 55668 82063 11940 84539 09723 39374 02691
53945 93749 27907 05068 96152 71650 14905 73718 96245 78832
57722 43051 08150 11495 51869 03410 25820 18569 76514 33806
11558 32395 89657 12800 30883 07760 82556 51691 80462 22945
96616 03966 84426 04652

59463 48852 85767 38091 76649 79954 48311 26372 45581 04118
66257 01911 97198 56991 51227 46461 11884 11289 60202 93924
37573 72803 72776 99078 73303 46580 84945 59774 56791 78691
99517 63696 37437 *Courtesy PLdn*

04/08 829 1 01587 00094 36468 ... 37437

0710z Fair, 0730, 0750z Weak

09/08 829 1 00754 00094 35949 ... 40132

0710z Very strong, 0730z Strong, 0750z Fair

829 829 829 1 829 829 829 1 829 829 829 1

00754 00094 35949 28812 91034 27766 18875 57283 50386 36904
63386 43837 49603 97937 62832 06562 20135 31642 86160 91141
80064 75633 43930 39511 37954 06841 25270 85106 46077 68152
20184 90153 11391 18281 58475 91837 84420 86248 41286 44012
08343 93511 28351 71171 47615 36610 13866 89090 49914 55434
16358 59662 52852 37873 87133 57356 12820 45807 17502 22627
97589 47496 11121 59226

98704 01147 15560 68226 86462 45600 55817 07291 98656 75703
67657 98530 12063 61991 55068 07862 39507 01689 08692 31077
22583 78942 18183 77631 48460 08271 57400 26801 30820 82693
87844 98780 40132 *Courtesy PLdn*

11/08 829 1 00754 00094 35949 ... 40132

Weak QSB3 Poor condx across schedule

16/08 829 105130 00146 41816 ... 04200

0710/0750z Strong, 0730z Weak, QRM3

829 829 829 1 829 829 829 1 829 829

05130 00146 41816 19037 00139 72600 37683 47391 03756 89911
48222 17859 05126 77540 83115 61268 39305 50674 18203 78936
49794 62192 29579 05402 29911 36892 76853 49008 52242 87045
43244 65194 51805 12699 35877 52129 38671 12265 63822 95968
44263 50904 55397 90926 59122 78169 96386 36599 11587 98971
32798 25351 52698 33356 06502 87098 76167 71724 96580 06614
07104 95188 62619 01168

03824 55392 62500 76757 40076 70185 38630 76180 97746 76615
37923 83945 97824 38205 16754 91607 62227 22744 96389 52219
75636 66338 95311 70923 23464 36271 38884 13972 29654 73741
34222 91949 71461 89202 57103 12454 19016 17317 94992 34789
38956 93266 04700 50825 68270 27370 37028 40096 16771 92642
58712 97166 12218 72842 77199 93489 62987 55239 18051 04344
95679 85424 73965 63109

23640 47098 95422 23358 12510 97679 86741 94876 43731 09052
21858 06667 19650 54188 41441 01709 38460 22849 41569 47880
04200 *Courtesy PLdn*

18/08 829 1 05130 00146 41816 ... 04200

0710/0750z Strong, 0730z Weak

23/08 829 1 05130 00146 41816 ... 04200

Fair, 0730z Unworkable

25/08 829 1 05130 00146 41816 ... 04200
0710, 0730z Not monitored, lightning and antenna disconnected

Fair [0750z only]

30/08 NOT MONITORED, OFF WATCH

XPA1 Wed/Fri

Wed/Fri

July 2022

1210z	13368kHz	1230z	12168kHz	1250z	11168kHz
01/07	311 1 06028 00126 28587 ... 23034				1210z Weak 1230z Fair 1250z V.weak QSB4
06/07	311 1 02343 00114 66596 ... 11342				1210z Fair QSB3. rest unworkable [3m34s lg]
08/07	Unworkable:				1210, 1230z Weak QSB5, 1250z NRH [3m34s lg]
13/07	311 1 07717 00094 31159 ... 02773				1210, 1230z QSB4, all Weak
311 311 311 1 311 311 311 1 311 311 311 1					
07717 00094 31159 28089 66942 47847 89556 72881 85894 40490 40514 83989 63610 78505 42445 87368 04488 41609 11083 25580 90823 73787 21398 01819 01485 07711 04136 76003 34444 38035 12502 64245 15675 04261 02482 72623 96824 58616 99734 26816 64255 13611 85448 35852 81130 57127 94706 25065 47428 85094 34569 75237 96187 18287 53099 03938 66016 39991 00348 27226 05499 33989 37038 11701					
10224 36060 89517 47126 60604 17691 54538 30789 22343 84374 60186 41461 11848 44132 91141 05887 71850 03154 85083 50657 73845 77046 91972 64641 94237 72281 21515 48081 38000 43118 82549 60281 02773 <i>Courtesy PLdn</i>					
20/07	NOT MONITORED, LIGHTNING				
22/07	311 1 07717 00094 31159 ... 02773				1210z Fair, 1230z Weak QRM3, 1250z NRH
27/07	NOT MONITORED, OFF WATCH				
29/07	NOT MONITORED, OFF WATCH				

August 2022

1210z	13491kHz	1230z	12191kHz	1250z	10691kHz
03/08	416 1 09253 00130 36189 ... 26336				1210z Weak, QSB3/4, 1230/1250z Unworkable Poor condx
10/08	Very weak, QSB4/5 Unworkable				
12/08	416 1 00714 00116 44992 ... 43665				1210z Fair, 1230, 1250z Unworkable
416 416 416 1 416 416 416 1 416 416 416 1					
00714 00116 44992 09129 60585 69120 89300 37839 55402 93811 23085 89449 56693 14438 47442 82605 54445 09557 25500 45165 99663 34021 48914 31827 83693 50563 24745 74373 66564 48751 93313 45881 22303 97019 90974 11888 95047 69694 43757 96095 88937 43943 25641 26711 33425 04662 47735 28654 83560 93525 72622 41708 07081 76119 29206 28136 31631 46193 44495 08322 78704 77280 23223 60613					
86505 84821 60060 21907 26775 26680 71654 37118 59748 28465 56377 86345 18258 18305 58948 72815 35217 38774 95170 07387 79452 52289 30351 33167 77142 43577 75035 23017 07916 03621 64337 84850 95743 16655 33037 23289 07112 44102 96838 96983 72022 02244 72257 81463 87179 46836 65696 56813 46570 06762 93428 74949 97373 78152 43665 <i>Courtesy PLdn</i>					
17/08	416 1 00816 00182 56286 ... 27321				1230z Weak, rest unworkable
19/08	416 1 00816 00182 56286 ... 27321				1210z Fair, rest unworkable
24/08	416 1 00816 00182 56286 ... 27321				Weak, QSB3/4 [4m16s lg]
26/08	4m16s lg. Unworkable, 1210z Very weak, QSB4, rest NRH				
31/08	416 1 07428 00174 56960 ... 55367				1210z Fair, rest unworkable

XPA2 m

Sunday/Tuesday

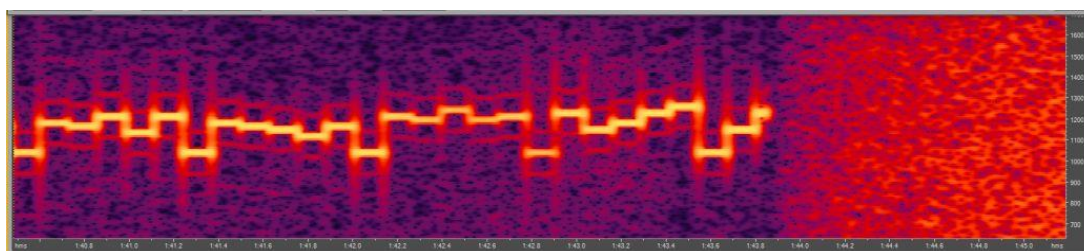
July 2022

2100z	13394kHz	2120z	12194kHz	2140z	10794kHz
03/07		00729 00124 95787 ... 12274		[2140z Missed]	2100z Fair, 2120z Strong
05/07		00850 00222 26187 ... 47467			Very strong

00850 00222 26187 43065 83728 51571 90358 56962 21504 46664
 24255 37680 99180 93603 92762 91309 35746 80539 81362 54896
 64696 83085 76797 23717 66909 53562 67238 53433 69038 10479
 04214 09747 09058 27877 91251 87886 95088 55215 77801 74652
 48512 77858 73947 29333 81346 07407 89540 49605 01677 79383
 76512 64564 92905 60814 03951 28245 73363 77946 55277 41569
 64451 14531 01504 77188 43149 77299 24218 62639 26238 01781
 49329 03766 46359 00285 52913 03532 22737 41879 43165 36180
 48296 49306 48442 82515 54778 56928 06202 10913 28486 28414
 85035 04933 62923 94271 24484 76238 43072 15601 71465 80244
 33552 72191 71471 21966 63023 29851 30883 50978 71319 14125
 33728 24645 13690 62196 90010 48326 11725 23173 69170 87364
 18002 57194 92183 40637 37870 83381 71182 69761 77262 72928
 33902 32505 32112 54745 61368 16661 03778 58416 59788 93319
 11957 05209 39682 08855 14939 22509 49194 42082 04118 08623
 53052 64546 09937 13642 63566 79256 99037 13483 86771 87406
 73217 13967 25084 08625 90799 46159 88188 90203 52005 72914
 09986 58173 54716 97722 48785 36723 19701 58514 78340 99947
 12398 48268 87257 26325 83273 42965 35831 52571 37916 17673
 79753 14483 82314 32394 72210 37590 21498 34246 41923 00896
 56015 08608 07104 04772 39850 42528 54941 04478 01930 15546
 21709 08177 74293 27431 02209 42501 15028 37166 97333 29364
 01398 69676 71968 80833 47467

Courtesy PLdn

10/07	00850 00222 26187 ... 47467	Very strong. 2140z last grp 132 [61368], sending incomplete; see below:
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End with 32505 32112 54745 **61368** 16

00850 00222 26187 43065 83728 51571 90358 56962 21504 46664
 24255 37680 99180 93603 92762 91309 35746 80539 81362 54896
 64696 83085 76797 23717 66909 53562 67238 53433 69038 10479
 04214 09747 09058 27877 91251 87886 95088 55215 77801 74652
 48512 77858 73947 29333 81346 07407 89540 49605 01677 79383
 76512 64564 92905 60814 03951 28245 73363 77946 55277 41569
 64451 14531 01504 77188 43149 77299 24218 62639 26238 01781
 49329 03766 46359 00285 52913 03532 22737 41879 43165 36180
 48296 49306 48442 82515 54778 56928 06202 10913 28486 28414
 85035 04933 62923 94271 24484 76238 43072 15601 71465 80244
 33552 72191 71471 21966 63023 29851 30883 50978 71319 14125
 33728 24645 13690 62196 90010 48326 11725 23173 69170 87364
 18002 57194 92183 40637 37870 83381 71182 69761 77262 72928
 33902 32505 32112 54745 **61368** 16661 03778 58416 59788 93319
 11957 05209 39682 08855 14939 22509 49194 42082 04118 08623
 53052 64546 09937 13642 63566 79256 99037 13483 86771 87406
 73217 13967 25084 08625 90799 46159 88188 90203 52005 72914
 09986 58173 54716 97722 48785 36723 19701 58514 78340 99947
 12398 48268 87257 26325 83273 42965 35831 52571 37916 17673
 79753 14483 82314 32394 72210 37590 21498 34246 41923 00896
 56015 08608 07104 04772 39850 42528 54941 04478 01930 15546
 21709 08177 74293 27431 02209 42501 15028 37166 97333 29364
 01398 69676 71968 80833 47467

Courtesy PLdn

12/07 00840 00180 18598 ... 67677

Very strong

00840 00180 18598 28045 54642 53177 80111 16322 50384 84484
63611 34238 08376 12167 66133 12932 25977 75635 64813 65049
42558 21707 85578 73530 02341 27156 45601 80447 11360 65676
95570 05137 64384 76031 49561 07819 98119 05465 17130 19942
43034 14597 15262 59668 05094 51119 44961 61439 74454 68844
12992 83594 22562 82359 41034 53080 04289 82465 49552 77985
48850 83416 70672 32473 83640 91134 22967 79431 87528 37695
52366 99235 83242 85783 91507 80050 27298 35530 49321 57143
13795 85537 15035 68475 20756 64352 50634 98500 70677 34870
59536 46037 36995 98829 11539 15183 87067 82588 63641 11281
79374 34818 40043 47009 56459 59383 15384 27528 86504 67242
89746 34842 38324 96062 68314 53107 89356 27104 62640 09476
69915 83010 00486 92878 85598 70926 27825 32114 66058 04914
33543 00134 31555 25804 78701 81718 19373 76581 69461 82783
86155 44820 65510 82883 71045 00623 13472 79645 53995 09811
63660 44340 08830 79821 68829 39531 55978 96004 68071 45048
89700 56646 50082 86600 57359 07265 83077 62881 51566 63235
61034 81441 12500 20491 87185 53983 42599 09616 79664 29835
00507 10068 67677

Courtesy PLdn

17/07 00840 00180 18598 ... 67677

2100z strong, 2120, 2140z Very strong

19/07 NOT MONITORED, OFF WATCH

24/07 NOT MONITORED, OFF WATCH

26/07 NOT MONITORED, OFF WATCH

31/07 00839 00268 30737 ... 30436

2100z Strong, 2120, 2140xz Very strong

00839 00268 30737 64585 51065 39785 13583 77432 27617 07386
61852 95838 34791 79213 74568 53364 26198 73264 84325 03349
63719 08178 90923 41614 57528 84739 23751 75031 12485 39186
25926 38950 37944 17765 19468 29230 76314 30968 38167 31653
75321 94127 15783 07867 96286 27027 89741 20917 48692 08664
86713 57296 70536 28683 65691 79742 38340 72488 71149 71463
27989 31513 12619 52161 96914 42066 70797 95657 98103 62370
03152 64427 46673 82820 27576 21183 99265 01085 38244 26687
37119 67143 45469 87284 21801 40316 69747 73421 97587 18766
08513 46729 76532 02867 19851 23854 63054 87340 11921 09323
97351 16730 17082 38462 55875 90441 67200 08239 40363 96020
67884 19628 69158 84258 28876 11924 40449 00685 35502 30633
57108 65626 37312 26401 01418 78818 72781 09404 65275 84412
58811 16331 99707 36494 63268 46701 89062 75834 42288 88759
09083 32098 89193 43870 75008 41722 21276 91527 68722 59654
23348 49077 53120 86261 03865 47621 57128 15779 79051 99687
12571 63612 12163 59689 24418 80508 84017 68822 28217 55170
52656 13429 56210 10574 03045 66246 49967 05686 37535 26415
77694 41911 27230 11515 67204 81647 78723 84642 00801 80674
32690 47771 75878 86868 86999 26859 27030 90832 61903 00137
58180 02048 87448 90638 54186 92766 43619 43947 41024 93084
56248 97736 30964 01502 68717 22195 23860 01025 53469 64116
01395 42006 61644 37082 47984 64558 25586 33004 47148 45752
72052 75310 39262 80064 18112 69019 14108 45630 04153 40835
90203 29664 30915 97361 32247 39401 71182 29899 59388 15096
32209 76611 07263 44028 77533 99125 45682 70350 73438 89606
49331 45999 51486 25607 35262 74029 94603 05133 48933 60575
30436

Courtesy PLdn

August 2022

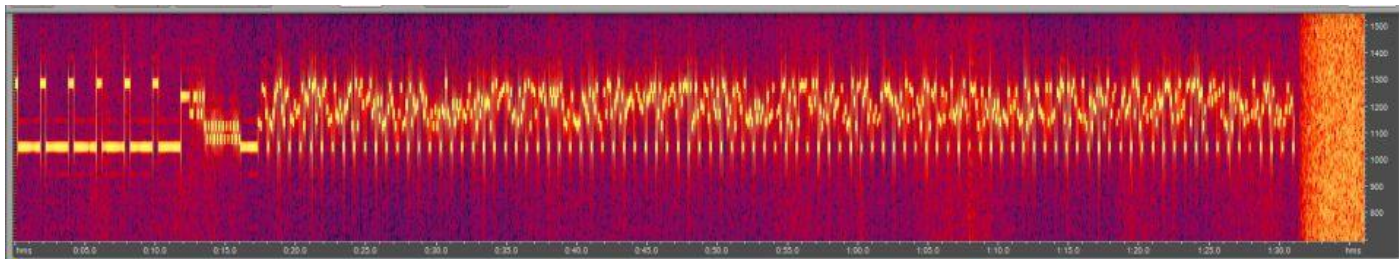
2100z 12159kHz 2120z 11559kHz 2140z 10559kHz

02/08 00872 00268 93067 ... 34437

Strong

00872 00268 93067 10423 88659 89175 79301 82141 34788 99794
56924 51550 38522 28804 80534 86250 22332 32920 40424 21482
44625 45448 94678 84712 07148 99872 76850 75757 84002 61000
65317 63811 72982 46916 24564 86436 56868 28846 57862 85898
88182 43871 94272 98503 77863 91020 41413 06128 23389 16695
08989 53959 33261 68245 81330 95589 57914 13016 87865 53062
96872 53359 88768 10716 29213 25941 87844 70427 24140 21073
47201 99612 87321 80812 76981 80795 21911 55437 75559 26802
57235 92977 35182 40645 89851 61924 89089 96773 58596 72800
66636 43041 29240 38683 70302 03835 01062 11186 95314 13713
88924 42012 98749 74254 70817 26275 44466 30002 49102 83717
64799 87046 43141 93676 17472 52332 13651 16554 79115 61706
85850 51733 38335 86433 60400 47451 32590 83597 90654 90029
43242 03360 35648 75840 81003 45981 15219 45218 94608 43809
70678 53176 70845 43832 09945 36763 96465 47289 63329 01236
00177 88486 61342 31538 66280 10193 45924 09437 99364 13845
22184 14266 41145 87041 29624 70167 87867 97145 99299 28706
32978 28845 17177 00300 31907 67731 52465 62315 87903 15920
66510 22698 16011 53868 50593 89177 66391 94307 65418 14284
27353 88558 66108 77633 92551 10661 86778 96720 50247 57868
28482 92859 99229 99071 69658 67084 82974 64893 56629 11137
91923 53771 67272 92145 68067 19893 34916 85182 03058 04126
75846 58568 90236 95476 02035 89159 67041 40389 81519 11936
56215 00533 67797 64450 05585 79070 60156 02173 54747 37149
54306 35606 47881 31248 55218 88369 21970 05524 58493 35721
45187 93441 01982 68067 88159 78396 54617 69062 93332 37799
32570 27053 88289 07191 60277 51831 30939 84679 07306 90907
34437

Courtesy PLdn



07/08 00872 00268 93067 ... 34437

Strong [2100z V.strong, incomplete - as above]

09/08 06550 00240 41620 ... 06652

Very strong

06550 00240 41620 89847 46325 51080 18616 70506 85267 11688
89605 45163 43209 88544 74004 14793 26103 06600 47018 66886
47066 78082 79543 06931 50930 44115 55805 01569 11653 15053
23343 80980 01304 84634 86256 37946 87913 73496 66415 72317
00588 58498 81783 86674 36447 80752 65007 35672 88135 04196
11454 04518 77275 63276 62597 52283 63993 44095 03174 16735
73310 76829 94074 25425 29653 27957 96588 22451 13577 49916
58239 73068 03396 42947 78496 36974 48334 03165 46227 06339
54598 63355 51198 38528 94987 53489 16738 91234 77424 76667
75836 67920 57703 78238 65434 16997 26459 65364 36469 28134
74662 52973 55205 29492 32786 74134 65652 98315 40596 88121
25185 75858 32604 15051 04296 67235 70164 23235 87643 88934
86883 20334 05313 43541 50693 16656 28226 87805 21473 06024
26562 91056 41415 25723 81502 92376 41708 41460 85980 32217
67853 87284 63430 96817 20371 69859 27093 36293 05203 30619
81414 46520 94429 63890 38429 01425 90393 06248 05324 68213
58197 84832 66245 64763 38903 43535 76119 15487 78513 39675
67284 02765 53783 38874 89997 65068 79017 75465 69798 07822
51325 12640 99426 05410 40172 73977 08479 02365 09277 85774
09538 70205 08793 69530 14856 76525 04101 20963 74116 64991
11940 16165 13287 75764 61011 60822 75344 90360 02671 42636
90835 17549 33236 91789 35256 58598 67675 31526 72653 44296
04064 31212 38316 33687 17449 46798 01512 39235 97390 52640
42683 50148 34039 29166 80702 73568 80125 84824 09539 11158
42496 20778 06652

Courtesy PLdn

14/08 06550 00240 41620 ... 06652

Strong

16/08 06160 00244 30154 ... 43710

Strong

06160 00244 30154 89979 47664 10330 51117 77056 78064 07927
72922 35834 06184 19889 25884 71568 10832 96033 65641 36031
29619 81228 13576 87919 89089 46357 14698 83971 57649 33370
71785 72605 87212 76383 71949 49855 48894 72406 51236 25312
96768 61095 67250 19820 52423 15217 44427 31222 42383 52132
57001 41939 38703 49361 72922 16925 76018 88421 57964 16952
99529 40440 70733 27954 17952 29000 22997 02684 75321 38568
67079 21099 74538 07338 99607 58225 19550 61673 13834 33450
62838 85068 67683 96314 39606 83677 29793 12231 26637 64059
41675 75829 42897 90932 71926 51026 06854 47596 87239 05296
51987 30318 69370 99726 81755 68805 56287 02858 81785 59171
59262 64315 87168 33566 49902 54639 14766 53387 87248 28709
91024 49114 30175 70038 97947 86156 61142 74213 31257 67417
77694 48317 86551 90370 53378 33892 38637 13978 79401 52925
10819 88311 37107 14099 53229 66265 51085 44439 77775 38756
32277 05507 80727 37966 55975 99075 70402 53125 61137 99087
96596 84752 63689 62873 79712 25510 27453 88327 92841 11395
01162 93222 06597 61694 92487 12768 00121 23054 90187 60656
84905 87273 18867 29009 94875 32994 23073 59253 54868 95775
22723 68619 61637 62365 09952 67295 96602 19699 37947 34375
08721 46821 30607 70127 03437 37203 24439 80264 73440 38042
02542 80838 21013 89928 41933 67160 27701 61161 66487 48887
82289 58265 97909 24259 34038 46512 88326 78658 72396 86715
18276 92064 39949 94481 73842 06521 21791 09884 83174 51758
42240 48240 04353 54946 85625 55569 43710

Courtesy PLdn

21/08 06160 00244 30154 ... 43710

Very strong, 2120z Fair

06160 00244 30154 89979 47664 10330 51117 77056 78064 07927
72922 35834 06184 19889 25884 71568 10832 96033 65641 36031
29619 81228 13576 87919 89089 46357 14698 83971 57649 33370
71785 72605 87212 76383 71949 49855 48894 72406 51236 25312
96768 61095 67250 19820 52423 15217 44427 31222 42383 52132
57001 41939 38703 49361 72922 16925 76018 88421 57964 16952
99529 40440 70733 27954 17952 29000 22997 02684 75321 38568
67079 21099 74538 07338 99607 58225 19550 61673 13834 33450
62838 85068 67683 96314 39606 83677 29793 12231 26637 64059
41675 75829 42897 90932 71926 51026 06854 47596 87239 05296
51987 30318 69370 99726 81755 68805 56287 02858 81785 59171
59262 64315 87168 33566 49902 54639 14766 53387 87248 28709
91024 49114 30175 70038 97947 86156 61142 74213 31257 67417
77694 48317 86551 90370 53378 33892 38637 13978 79401 52925
10819 88311 37107 14099 53229 66265 51085 44439 77775 38756
32277 05507 80727 37966 55975 99075 70402 53125 61137 99087
96596 84752 63689 62873 79712 25510 27453 88327 92841 11395
01162 93222 06597 61694 92486 12768 00121 23054 90187 60656
84905 87273 18867 29009 94875 32994 23073 59253 54868 95775
22723 68619 61637 62365 09952 67295 96602 19699 37947 34375
08721 46821 30607 70127 03437 37203 24439 80264 73440 38042
02542 80838 21013 89928 41933 67160 27701 61161 66487 48887
82289 58265 97909 24259 34038 46512 88326 78658 72396 86715
18276 92064 39949 94481 73842 06521 21791 09884 83174 51758
42240 48240 04353 54946 85625 55569 43710

Courtesy PLdn

23/08 07444 00168 72318 ... 72557

Fair

07444 00168 72318 39306 54381 88877 72541 84909 53052 92770
41974 61566 82713 85556 94968 32132 25497 35906 43777 41323
07941 23560 76833 21269 02391 78133 44451 02600 29318 66735
38654 59787 03694 29810 91987 81992 47369 06217 57658 91246
23010 90378 80567 34355 75812 85557 41619 27873 74720 64817
60262 50267 61910 37256 54243 21669 45731 31964 39086 95287
84714 19775 94428 77712 16310 59525 67174 38544 94948 01639
73076 02307 91041 77769 49530 92209 24439 60392 09646 22337
84337 11007 53909 97393 06586 64764 60404 56512 40568 42997
91410 56532 75013 09564 83670 44534 90826 65857 54046 21086
86688 02744 08690 54791 79882 27070 65471 14780 13195 96349
12921 54344 50913 82343 41230 66019 79361 39797 74303 94803
10932 93856 47637 29047 89692 67448 59737 60987 30462 64518
51443 17939 49581 51954 37489 03760 43573 80937 12231 31034
55354 14511 30579 18035 71958 23023 31934 72601 68623 00131
55327 25143 94951 57880 80179 63208 60234 42311 23837 38666
44853 92950 59744 27939 95242 26055 55231 69058 91130 17116
72557
Courtesy PLdn

28/08 07444 00168 72318 ... 72557

Fair

30/08 00276 00226 10110 ... 05035

2100, 2120z Strong, 2140z Fair

00276 00226 10110 38111 61695 80733 63328 41879 37985 41466
61097 43108 06986 11227 18162 78358 45489 28548 50582 41701
59282 30531 84693 48407 97071 62441 31194 79712 01560 83678
77459 05265 30499 36966 81083 07819 75934 77171 44022 92505
08389 34992 33051 82519 30365 20540 46104 52572 25217 05932
17823 46903 01557 20483 79036 89282 52043 44612 57952 90240
98072 26291 57664 96151 36522 31262 35560 65173 25624 68279
81153 42329 56156 04284 95334 71237 03946 19777 48005 57799
11127 55833 16463 83653 48543 95133 81817 04708 73224 34992
10149 82699 18069 30672 26000 40345 17883 15673 97479 37177
46290 13374 57060 28020 92112 25337 99589 19952 32021 05030
59378 43109 92336 36253 09560 31328 36145 89091 23518 60000
12528 06373 41446 93659 91329 84524 01810 67992 44688 32736
63828 59583 89258 59684 50828 43337 20289 94553 29939 85772
94683 85829 31216 40950 52882 55565 89894 60365 59521 23154
44941 48776 65520 74149 78954 66815 00442 04031 16957 99492
95343 25613 52533 73484 25874 13829 79555 44117 65430 29921
34968 61239 21398 89710 16002 40781 68457 96331 60304 44662
70517 48442 28659 12058 85112 62910 99254 55703 68356 81083
66990 11807 87031 15230 43520 58102 80827 34944 28734 39422
01880 68901 84810 59113 68499 31091 67260 02121 44842 34968
75738 79604 35106 32074 67012 29106 88643 39154 21613 32234
80826 85458 84613 23988 58460 66516 04259 24688 05035
Courtesy PLdn

XPA2 p

Monday/Wednesday

July 2022

0700z 12148kHz 0720z 13448kHz 0740z 13948kHz

04/07 00776 00098 16698 ... 13114

Very strong

00776 00098 16698 45473 23652 28641 09959 58966 59492 45881
16770 29052 09746 75818 11250 90737 70327 24924 64221 52488
04598 42536 68658 13161 75753 39000 06329 01464 74838 67090
32439 76928 60905 01625 66105 06259 11161 73475 94126 35149
83077 86228 96851 05585 23407 52552 93809 30331 55923 67772
40354 79384 93706 20209 06973 02803 36270 87925 07671 01655
25794 97414 64700 14426 75902 24264 69899 84594 75911 67341
39956 80189 59436 68766 41419 55062 80479 20404 09658 42901
34082 03570 41641 33181 24349 07685 61537 98324 04492 60458
94770 95903 88561 42644 65028 66289 90855 51191 88218 54022
13114
Courtesy PLdn

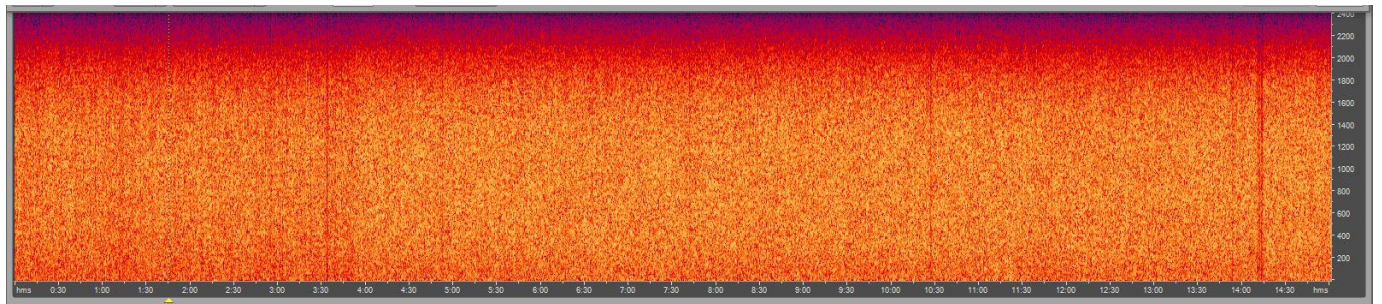
06/07 00776 00098 16698 ... 13114

Very strong

11/07 02838 00122 92042 ... 40765

Strong

02838 00122 92042 18720 25659 93486 67932 50719 43594 69189
66387 29414 91370 35479 42051 78184 85102 29477 83869 56190
99709 46716 56117 33993 44350 43266 50832 58892 39776 04767
03302 32635 58561 70788 26434 34877 40106 54096 69188 83928
79544 92520 01815 88229 77195 85874 44142 79427 00010 84294
95149 18710 12375 49212 16497 12340 40306 30510 05286 72893
58169 92555 30360 07143 49828 33574 41758 91221 15011 38423
89557 74157 75875 60129 73233 52182 36121 17859 87638 88841
25205 91166 21281 64308 06888 51007 69098 85461 97420 79225
50318 94537 89481 11156 66594 82886 91140 07377 34568 35690
49942 57447 62369 53734 49311 03062 71831 05985 80145 87215
13802 43576 45519 41458 34351 80354 39216 57795 06995 75959
96211 51811 16673 45056 40765
Courtesy PLdn



13/07 0700z 12148kHz 'Nil Required Heard.'

13/07	02838 00122 92042 ... 40765	[0700z NRH <i>as above</i>]	Very strong
18/07	02838 00122 92042 ... 40765		Very strong
20/07	NOT MONITORED, OFF WATCH		
25/07	NOT MONITORED, OFF WATCH		
27/07	NOT MONITORED, OFF WATCH		

August 2022

0700z 12152kHz 0720z 13552kHz 0740z 13952kHz

01/08 01360 00122 44781 ... 15777 0700z Weak QSB3/4, 0720z Very strong, 0740z Weak

01360 00122 44781 26160 04190 75181 04183 42626 46529 11904
95114 18172 95833 74072 56906 99717 97311 74524 22027 66886
47341 19601 05995 79095 24770 07951 73391 59683 67477 59710
08129 56822 05906 84682 72396 71621 23934 02498 90455 54286
07268 65921 25743 58724 07490 66169 55622 36116 59124 47023
99892 32699 51484 77709 84106 06893 93327 69573 29657 93567
44958 39345 72629 64860 78070 28880 97842 07606 71179 74443
53402 57619 65103 27535 23196 99120 41984 81063 94383 56562
05539 88526 23996 34818 60757 17039 99227 34951 17533 12199
58981 51211 59462 30643 47947 58739 30227 09094 63603 70289
95370 73166 94898 55664 47486 16228 77706 22305 22685 53782
74684 18704 55197 46866 74385 71975 42731 26693 86150 44805
68251 59537 24697 38573 15777
Courtesy PLdn

03/08 01360 00122 44781 ... 15777 0700z Weak QSB4, 0720z Weak, 0740z Unworkable

08/08 00435 00154 82333 ... 53764 0700,0720z Very strong, 0740z Strong

00435 00154 82333 23594 63039 13554 94310 39002 95266 12995
55358 49360 39754 40229 64485 89127 80453 92897 17713 61165
21067 05182 66494 69752 63232 83765 58928 57748 70809 99289
61909 54529 77121 40667 84388 72851 16052 22257 60890 47732
51888 57056 74083 54663 55864 44228 42447 34161 31734 08506
44948 07567 55393 67809 81946 93886 08356 18214 57137 45425
58009 33242 65660 13197 72395 42725 51737 51415 70100 42763
21527 94527 61241 70082 04610 60586 87097 50517 90603 29147
74122 50052 15949 09108 48577 54353 62817 85603 04045 12473
58069 50211 16541 25682 87310 89458 49063 94197 37985 38698
86668 60100 84762 44374 41841 30515 80788 91695 11014 95520
02273 27574 20533 86552 68035 15172 84732 10704 98481 43450
84710 37154 60573 88163 30833 71292 98499 14947 39342 35861
99002 53734 14931 04608 28033 80461 04957 07959 32784 45120
60272 07163 45313 28691 77512 71364 88983 11680 30270 38373
88275 83417 11429 87758 60430 89670 53764
Courtesy PLdn

10/08 00435 00154 82333 ... 53764 Very strong

15/08 05904 00106 06506 ... 45604 Very strong

05904 00106 06506 23804 73107 55776 22694 45261 47852 12339
58458 23399 35311 99013 21649 21370 01317 83265 39599 35027
33495 55439 21879 93927 69356 16715 75882 85659 55289 27152
22998 59952 90853 39534 87851 91131 79522 50239 75260 63344
75264 12017 05280 40712 81905 92337 25811 84247 34539 86875
40301 21651 23341 15532 97434 73404 47649 00475 06461 89927
13237 48428 55559 50025 57509 38293 22864 17557 71334 26808
03636 61434 10645 50089 10537 81858 65304 30525 36921 81459
26017 16635 22646 46710 83228 71610 80647 02639 58949 92361
36051 24203 70097 36378 77645 61305 03803 35701 02983 94793
54751 34139 31983 75613 70073 66681 47210 95844 45604
Courtesy PLdn

17/08 05904 00106 06506 ... 45604 Very strong

22/08 05904 00106 06506 ... 45604 Strong, 0740z Very strong

24/08 05904 00106 06506 ... 45604 Strong

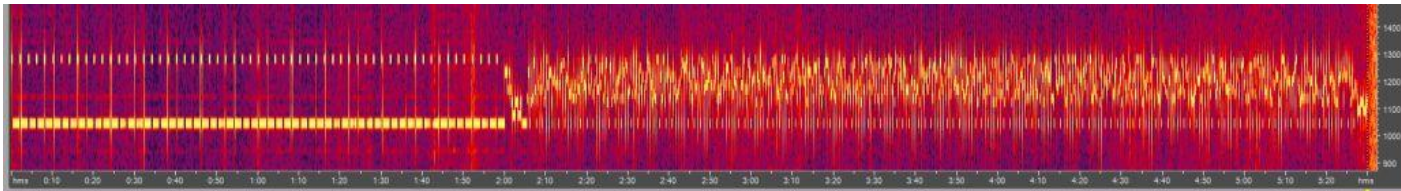
29/08 08477 00096 31621 ... 51131

0700,0740z Strong, 0720z Weak QRM2

08477 00096 31621 50456 27591 81051 22750 63267 69259 20561
83098 27100 51417 72102 24853 13775 76675 92011 68979 60677
92430 56464 44372 57504 56675 79780 84280 00798 86668 16538
77244 13701 10314 17120 52467 55294 79800 23692 79117 49585
79244 03650 30178 98608 14838 41742 51389 21512 74240 18612
91000 44981 48046 89859 09160 99040 56129 14021 57594 77033
80683 15056 15818 34604 03379 62496 54376 65561 22652 90681
46941 66717 05165 99211 58276 46880 09250 91951 05514 46490
29980 00905 36475 25725 53746 16540 00293 39894 64726 74174
87543 99680 48534 82898 90552 55313 06552 27972 51131

Courtesy PLdn

XPA2 Wed/Fri



A surprisingly long transmission for XPA2 Wed/Fri on 06/07; 5m30s. Full message below

July 2022

Wed/Fri

2100z 12124kHz 2120z 11124kHz 2140z 10624kHz

01/07 02845 00148 27932 ... 12043 Very strong

06/07 00666 00260 89020 ... 32301 Very strong

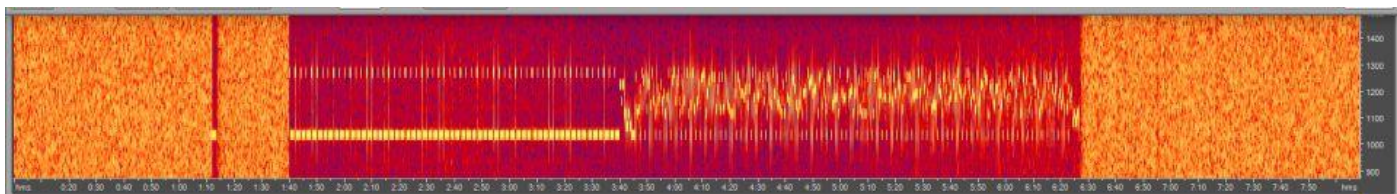
00666 00260 89020 60335 27025 95501 59634 68655 04546 33438
03637 88380 33574 91312 32070 13404 29205 25828 31520 87392
94517 20449 62224 78387 80147 84411 47844 17509 03134 56807
73096 28271 19286 31959 18492 90557 23055 01315 89875 05355
61604 94936 85660 98334 65946 01358 66552 30613 25496 08675
72986 95613 00860 53213 62090 36887 62736 39505 73429 32759
90662 02146 52973 67374 31939 71545 39662 26603 33691 12242
84860 31415 49115 57339 99465 59734 54446 40187 59709 42011
66319 75290 18079 45016 25747 19094 61349 86814 36116 77676
14307 74725 78602 40021 56998 84740 15183 81306 48729 96740
83017 53012 40175 06278 10439 00422 87920 88972 23999 26746
80347 00682 62026 72581 42987 78321 51197 19528 54836 28706
21528 20954 30039 03232 88969 68250 35436 25682 25007 87255
65118 94822 73409 46196 14986 83294 28121 99823 71107 27444
07501 68494 58855 56258 19781 60323 87275 18773 83372 81951
52192 00936 32370 69929 07517 46193 05863 39883 40820 90429
61889 30614 86007 25335 64806 65847 02000 79583 29647 35439
47112 90915 50496 20908 16144 59404 26963 77295 85960 50628
18023 99865 97154 64623 79546 97111 51685 10264 66696 78331
20936 50103 95661 90599 69288 55834 13530 35718 82900 18250
07728 95764 26710 50469 08805 07546 71252 23863 31769 52066
31177 05023 67404 50260 67599 67195 45195 69585 10438 71278
57356 73222 21138 73248 31258 53189 87808 35400 03027 47313
86128 38791 63973 76812 13690 06100 47937 56595 00636 92948
56037 45420 34225 78899 34244 01600 82094 80951 48419 10284
27810 31988 26649 27730 94754 51320 77117 48576 85086 58953
68466 46218 32301

Courtesy PLdn

13/07 00810 00204 08553 ... 12340 Very strong

00810 00204 08553 59221 70483 16820 66868 87144 19135 22222
60905 22032 44652 20039 29988 13422 94407 55487 90396 75225
27195 21117 60316 23398 92609 57777 90097 19138 04779 31882
48165 13728 68493 78854 04615 72727 58108 24483 69082 75616
88020 08741 00187 96491 23202 59959 22300 43885 84708 26553
44423 59035 33506 91319 57876 50049 22435 81074 73147 83362
36828 26959 40068 75522 58194 69213 47394 17220 21309 08882
56552 07764 93988 23043 71827 90356 75151 22329 10420 33733
46353 44478 66069 75707 74715 58527 22733 77777 13941 55547
25007 58773 78494 91191 92031 20365 99611 99435 33242 32133
27709 23242 46592 66691 47854 33387 00306 87777 63007 98833
38615 90066 91922 58083 17839 64816 43632 73137 36631 92719
17839 80241 38881 41431 21936 46444 07003 15090 59886 28863
88821 29403 48549 44429 49924 43970 60945 66916 11417 32188
31041 31882 11881 63525 47746 20047 68629 52159 62008 33644
51846 17736 42918 45109 41335 52214 57091 52976 85523 16407
83633 05386 58042 33066 69664 39186 79773 00005 64640 12691
13652 62582 37884 17310 75874 20767 20317 22980 91644 27830
49665 28809 11004 06817 84334 73944 60044 29889 47956 27262
09443 55558 14136 84841 58085 24644 18885 44522 63683 56877
92124 43218 61320 37288 07196 85023 12340

Courtesy PLdn



15/07 00810 00204 08553 ... 12340 Very strong [see above, 10624kHz, 2139z showing start]

20/07 NOT MONITORED, LIGHTNING

22/07 04540 00156 68367 ... 15335 Very strong

04540 00156 68367 91127 36892 73815 79554 13722 80476 08195
50014 05088 11498 02535 37930 75321 68619 10736 66805 27923
29857 23746 54040 05047 76999 09181 59511 31112 89861 03985
52127 54324 17759 96213 50816 67878 36988 79096 18483 68786
52763 08466 01651 09473 54215 93662 27776 50310 20126 18816
18560 09110 78414 63433 15435 76885 94380 82360 09029 78655
18034 16221 63165 46266 79128 52400 06567 90032 47453 77416
28169 27832 15848 10413 67938 61632 13902 71175 11117 09341
73343 16539 71311 92258 53729 05575 12625 27146 83845 72231
17754 19603 25742 84380 70743 26585 73399 10025 37380 84141
77716 18490 68442 78627 75486 86387 72348 17063 79611 23896
12510 42832 44656 89359 28019 17619 40495 17345 34350 27780
49835 03920 78774 03963 82353 89125 38789 56230 97826 45893
59936 93306 86276 22246 60169 59745 62451 77625 43759 84086
40399 02198 71687 51331 14266 47113 94572 97176 24329 65190
45348 09891 03329 75320 03721 75341 86310 16349 15335

Courtesy PLdn

27/07 NOT MONITORED, OFF WATCH

29/07 05711 00206 94806 ... 52355 2100z Fair QRM4, 2120,2140z Vwery strong

05711 00206 94806 20524 89536 93565 64921 57748 46304 37063
19460 83770 83803 20810 24853 60812 99445 70047 57655 88816
25016 11358 74089 49362 95003 41051 28397 21160 55494 66567
32675 92941 34082 81036 02287 52438 12363 34771 36693 72720
35197 55299 52348 27662 70220 13739 42367 95520 56000 90384
96058 52116 18451 06833 23727 66267 99711 60719 24643 87643
01940 85847 05272 18342 32488 87462 44940 16518 43955 20787
17340 53506 24035 24834 27933 82741 78253 82988 91389 48491
48753 47864 52458 17244 00299 25309 85102 36398 67326 66878
34703 98569 79258 17815 72646 37845 36352 01415 56556 00738
81055 85432 97019 96686 90571 28755 52255 41482 38006 87620
10902 30852 79248 79763 81110 60631 67566 99681 38833 47969
68381 66004 34984 07573 62812 88251 21302 56581 62840 20652
63644 46851 14478 02493 64811 94200 84803 71633 42486 51714
99742 50360 63907 32171 37820 02070 23022 13223 10932 44055
92719 24920 37949 01125 12628 34310 60255 31487 28318 70314
78662 95856 24201 72555 59506 30512 33769 76404 66266 99950
71332 01493 81420 90459 02349 42044 76616 67882 10595 25816
09277 66006 51199 45298 39951 48969 72471 55809 95010 63506
69993 57320 43718 37076 01081 55963 35770 16872 83977 00423
52996 82098 77822 99957 55926 09870 82037 30713 52355

Courtesy PLdn

August 2022

1200z 13919kHz 1220z 14719kHz 1240z 16219kHz

03/08 00884 00206 27088 ... 50247 Strong

00884 00206 27088 85137 09080 06957 70657 02418 64186 51497
28936 98587 41823 26608 20133 15113 90501 36161 86100 43258
66518 19576 29556 09584 38273 72996 15290 58271 81272 82783
58741 78780 16841 20961 28741 66711 95204 40022 24300 26098
81509 91139 96141 21630 41317 40610 70900 11889 18768 09531
26452 20491 10172 21486 94765 37987 99952 14778 15604 21685
10286 32398 53420 38327 15295 60373 65369 62661 91051 69232
41776 30233 66930 95426 98476 45452 50724 12356 86384 36185
79881 46024 21169 51221 33610 55383 41362 63043 01623 02082
69369 30422 63985 29878 82851 64126 44056 51296 30740 27493
57867 26978 79767 28013 35660 46962 15430 91331 24448 08944
42823 81900 07302 12619 98304 71190 13845 04099 73208 83124
60818 94269 56985 20278 75453 79840 66730 94395 50635 04721
62314 25722 50196 84260 90097 86833 00465 84640 37871 62872
15252 78813 43761 19361 51478 01607 23173 91627 52296 93589
31934 90756 46158 79551 81806 11702 64596 69926 83813 10780
84666 91482 51539 69997 11220 28125 51798 68091 39073 09757
84000 76137 24270 50071 28029 42262 41599 72715 96906 83172
11521 22404 18532 11369 40220 88759 60482 70014 16824 88958
65574 26341 82020 22992 28240 24935 79833 68845 89267 54011
50106 97957 00631 43666 64876 08526 17995 11055 50247

Courtesy PLdn

10/08 05093 00001 00000 ... 32666 1200z Weak, 1220/1240z Fair

12/08 05993 00001 00000 ... 37266 Very strong

17/08 00152 00186 18041 ... 10117 1200z Umworkable, QSB5, 1220z Fair, 1240z Strong

00152 00186 18041 78447 35346 03715 73442 09237 60214 31849
88098 97545 85668 68538 12258 84306 80353 91926 60411 70220
97341 44393 38298 49294 70317 58247 57110 43011 91465 76010

61593 99201 54671 41571 23229 37505 04531 75563 38638 14018
65725 04860 24118 05253 84357 70635 84859 24024 42302 55652
73128 16077 43829 84027 45825 29352 39145 93899 59017 48822
53214 59773 14135 78386 29600 93887 85506 56356 26954 25083
05603 13621 08373 97387 03911 18668 25766 16236 50382 73959
54402 51641 74346 24261 95272 46310 23744 44701 00782 91630
21400 64502 11195 41403 00630 41726 62689 47404 75355 75073
76720 38416 67172 07525 23680 64508 15499 05697 78969 45964
00596 19857 11176 01048 67429 33764 13708 60106 40239 22872
15719 41052 67452 72170 47439 17030 76641 46543 13297 24559
62604 84559 83762 68339 34559 32917 03997 04210 43794 03178
99668 93997 34752 82732 50297 82114 65978 07595 17315 83496
73307 90511 10157 04295 97173 43324 00660 87707 01545 97561
96068 67538 53633 25584 61728 78000 82671 71342 17819 23299
51702 11490 56661 32434 20224 23379 88379 55530 78732 65661
11696 53376 38470 77201 63614 83714 04141 99632 10117

Courtesy PLdn

19/08	00152 00186 18041 ... 10117	1200, 1220z Fair, 1240z Strong
24/08	00911 00192 21351 ... 54045	1200, 1220z Fair, 1240z Strong
26/08	00911 00192 21351 ... 54045	1200, 1240z Fair, 1220z Unworkable
31/08	05476 00226 23313 ... 10525	1200, 1220z Weak, 1240z Fair

Other XPA2

13391	01-07-2022	0800 XPA2	MFSK-16	07839 00001 00000 42262	Ary	THU
13891	01-07-2022	0820 XPA2	MFSK-16	07839 00001 00000 42262	Ary	THU
14891	01-07-2022	0840 XPA2	MFSK-16	07839 00001 00000 42262	Ary	THU

10243	05-07-2022	0500 XPA2	MFSK-16/20Bd	Ary	MON
11143	05-07-2022	0520 XPA2	MFSK-16/20Bd	Ary	MON
12143	05-07-2022	0540 XPA2	MFSK-16/20Bd	Ary	MON
00857 00153 62443 90043 34181 45236 00002 32317 66688 98584					
69541 21005 69895 28019 21771 62452 19162 49613 87369 62814					
22692 20886 64224 80590 71867 31177 55767 53508 46655 55736					
60008 35869 54505 61351 68022 72089 90043 19099 73231 89896					
57256 99919 33149 64531 40230 01966 97033 30497 99371 33576					
31579 62710 25096 57173 98897 62353 69354 08303 82417 81846					
50570 55461 64384 33270 88940 49603 02185 76861 22449 46037					
37171 38600 26179 98198 28557 91270 90283 91135 36417 86477					
36552 75927 66667 79141 91991 98423 10670 61676 30158 67220					
82212 73042 12723 06618 32592 92372 73744 54380 94930 37346					
60411 18000 49934 07848 70454 18520 05496 41115 16561 25659					
13054 15608 65501 66802 46270 59896 96843 10434 70145 40571					
08481 27225 81765 81928 63471 17110 03073 61491 89850 35573					
95460 83637 14657 14833 42926 18668 10193 81773 91018 62077					
17525 81053 47147 50789 93752 16433 70910 21977 84249 41520					
03668 85217 58778 46448 67185 06662 Courtesy Ary					

August fm Ary

10252	02-08-2022	0500 XPA2	MFSK-16/20Bd	Ary	MON
11152	02-08-2022	0520 XPA2	MFSK-16/20Bd	Ary	MON
12152	02-08-2022	0540 XPA2	MFSK-16/20Bd	Ary	MON
07326 00213 75109 04209 16378 39666 20212 34648 66938 44327					
89712 26189 78276 10616 89750 71363 04770 65005 06006 24720					
72971 53633 28813 98310 74095 87529 70000 82052 90278 17905					
17429 87464 46051 08041 39330 11474 14973 14887 36627 03375					
67356 91411 33153 08212 13083 53370 11111 80127 76322 39449					
47337 40253 78571 23941 71625 57434 12233 28867 71429 26554					
46800 12849 96917 68154 18301 13108 20032 97628 40673 38057					
85712 03073 67552 34770 71044 00947 26568 07371 71494 25632					
02120 02488 02769 94420 17867 33696 68712 77551 00092 13465					
19742 20348 46257 99717 14627 29829 48198 63014 97755 33876					
94266 21227 22096 29555 46222 64928 99762 07305 80154 48723					
20626 56693 72236 32200 48276 87764 57101 79377 61578 35976					
18526 49667 44355 54378 08027 78465 30472 14136 36014 78251					
09819 65583 94837 76925 25284 87388 07794 94604 57104 77060					
24661 26821 35461 66273 96384 52896 98768 08423 05129 21332					
77915 77001 96607 68606 22970 87196 64891 01426 96226 87511					
65097 98452 47763 94700 52174 15237 39095 43200 42529 96547					
44477 16634 02513 95806 48179 37985 71217 69826 22512 75515					
96131 30091 05859 55876 52374 73079 04370 59347 11165 60127					
18806 95401 20537 94238 20564 81989 31895 58761 59269 12356					
24561 59059 43355 16830 21912 29744 67769 34732 17750 99636					
86075 13211 29078 23185 04999 70603					

13962 05-08-2022 0800 XPA2 MFSK-16/20Bd
14862 05-08-2022 0820 XPA2 MFSK-16/20Bd
15962 05-08-2022 0840 XPA2 MFSK-16/20Bd
00877 00116 47526 85028 72638 78792 47752 45341 74866 32355
76259 26183 77660 46242 33486 07734 53008 47904 19496 71126
53562 31635 82705 54629 57836 00923 34162 48136 69295 24059
36932 25784 66695 35686 56684 66569 12660 84764 91102 49594
72137 27383 77931 57017 97750 16589 51989 10193 56113 09329
10561 69696 19483 50271 75109 55611 38618 22398 49747 02297
14820 87906 46917 35582 20597 42216 43921 75197 28193 69402
42477 60103 89943 12604 17779 24240 19799 53506 88376 46189
15865 28372 83802 34988 90747 57108 29336 16470 45620 16264
48394 44916 63737 27250 22338 25220 24604 43878 61004 11304
21109 00766 51906 82903 09942 97358 27774 56930 91042 32320
45740 37194 49618 35778 25352 82644 75992 22508 65626

From H-FD

1B XPA2

Fri 01.07.2022 0800Z 13391 msg
Fri 01.07.2022 0820Z 13891 msg
Fri 01.07.2022 0840Z 14891 msg

Fri 01.07.2022 1100Z 14958 msg
Fri 01.07.2022 1120Z 13958 msg
Fri 01.07.2022 1140Z 12158 msg

Sat 02.07.2022 1500Z 13954 msg
Sat 02.07.2022 1520Z 12154 msg
Sat 02.07.2022 1540Z 11454 msg

Tue 05.07.2022 1600Z 13538 msg
Tue 05.07.2022 1620Z 14438 msg
Tue 05.07.2022 1640Z 14938 msg

Thu 07.07.2022 0500Z 10243 msg
Thu 07.07.2022 0520Z 11143 msg
Thu 07.07.2022 0540Z 12145 msg

Thu 07.07.2022 0910Z 13445 msg
Thu 07.07.2022 0930Z 12145 msg
Thu 07.07.2022 0950Z 11545 msg

Thu 07.07.2022 1100Z 17435 msg
Thu 07.07.2022 1120Z 16235 msg
Thu 07.07.2022 1140Z 14935 msg

Wed 20.07.2022 0910Z 16296 msg
Wed 20.07.2022 0930Z 14981 msg
Wed 20.07.2022 0950Z 13953 msg

Tue 02.08.2022 0500Z 10252 msg
Tue 02.08.2022 0520Z 11152 msg
Tue 02.08.2022 0540Z 12152 msg

Wed 03.08.2022 1200Z 13919 msg
Wed 03.08.2022 1220Z 14719 msg
Wed 03.08.2022 1240Z 16219 msg

Thu 04.08.2022 0910Z 14372 msg
Thu 04.08.2022 0930Z 13372 msg
Thu 04.08.2022 0950Z 12172 msg

Thu 04.08.2022 1100Z 16264 msg
Thu 04.08.2022 1120Z 15864 msg
Thu 04.08.2022 1140Z 14864 msg

Thu 04.08.2022 1600Z 14864 msg
Thu 04.08.2022 1620Z 14364 msg
Thu 04.08.2022 1640Z 13464 msg

Fri 05.08.2022 0800Z 13962 msg
Fri 05.08.2022 0820Z 14862 msg
Fri 05.08.2022 0840Z 15962 msg

Fri 05.08.2022 1100Z 13887 msg
Fri 05.08.2022 1120Z 12187 msg
Fri 05.08.2022 1140Z 10387 msg

Mon 08.08.2022 1500Z 13825 msg
 Mon 08.08.2022 1520Z 12125 msg
 Mon 08.08.2022 1540Z 11025 msg

Wed 24.08.2022 0910Z 18059 msg
 Wed 24.08.2022 0930Z 16093 msg
 Wed 24.08.2022 0950Z 14874 msg

XPB1

July 2022

SUN/TUE

14644kHz 1900z	03/07	Fair	2m17s		PLdn	SUN
13444kHz 1910z	03/07	Fair	2m17s	QRM3	PLdn	SUN
12144kHz 1920z	03/07	Fair	2m17s		PLdn	SUN
11044kHz 1930z	03/07	Weak	2m17s		PLdn	SUN
10344kHz 1940z	03/07	MISSED			PLdn	SUN
9244kHz 1950z	03/07	Fair	2m17s		PLdn	SUN
14644kHz 1900z	05/07	Strong	2m15s		PLdn	TUE
13444kHz 1910z	05/07	Strong	2m15s		PLdn	TUE
12144kHz 1920z	05/07	Fair	2m15s		PLdn	TUE
11044kHz 1930z	05/07	Strong	2m15s		PLdn	TUE
10344kHz 1940z	05/07	Strong	2m15s		PLdn	TUE
9244kHz 1950z	05/07	V.strong	2m15s		PLdn	TUE
14644kHz 1900z	10/07	Fair	2m16s		PLdn	SUN
13444kHz 1910z	10/07	Fair	2m16s	QRM3	PLdn	SUN
12144kHz 1920z	10/07	V.strong	2m16s		PLdn	SUN
11044kHz 1930z	10/07	Fair	2m16s	QRM3	PLdn	SUN
10344kHz 1940z	10/07	Fair	2m16s	QRM3	PLdn	SUN
9244kHz 1950z	10/07	Fair	2m16s		PLdn	SUN
14644kHz 1900z	12/07	Fair	1m40s		PLdn	TUE
13444kHz 1910z	12/07	Weak	1m40s		PLdn	TUE
12144kHz 1920z	12/07	Weak	1m40s		PLdn	TUE
11044kHz 1930z	12/07	Fair	1m40s		PLdn	TUE
10344kHz 1940z	12/07	Fair	1m40s		PLdn	TUE
9244kHz 1950z	12/07	Fair	1m40s		PLdn	TUE
14644kHz 1900z	17/07	Weak	1m40s		PLdn	SUN
13444kHz 1910z	17/07	Weak	1m40s		PLdn	SUN
12144kHz 1920z	17/07	Strong	1m40s		PLdn	SUN
11044kHz 1930z	17/07	Strong	1m40s		PLdn	SUN
10344kHz 1940z	17/07	Weak	1m40s		PLdn	SUN
9244kHz 1950z	17/07	Weak	1m40s		PLdn	SUN
14644kHz 1900z	19/07	Fair	2m15s		PLdn	TUE
13444kHz 1910z	19/07	Weak	2m15s		PLdn	TUE
12144kHz 1920z	19/07	Weak	2m15s		PLdn	TUE
11044kHz 1930z	19/07	Fair	2m15s		PLdn	TUE
10344kHz 1940z	19/07	Fair	2m15s		PLdn	TUE
9244kHz 1950z	19/07		Not Monitored, Lightning		PLdn	TUE
14644kHz 1900z	24/07		NOT MONITORED, OFF WATCH		PLdn	SUN
13444kHz 1910z	24/07		NOT MONITORED, OFF WATCH		PLdn	SUN
12144kHz 1920z	24/07		NOT MONITORED, OFF WATCH		PLdn	SUN
11044kHz 1930z	24/07		NOT MONITORED, OFF WATCH		PLdn	SUN
10344kHz 1940z	24/07		NOT MONITORED, OFF WATCH		PLdn	SUN
9244kHz 1950z	24/07		NOT MONITORED, OFF WATCH		PLdn	SUN
14644kHz 1900z	26/07		NOT MONITORED, OFF WATCH		PLdn	TUE
13444kHz 1910z	26/07		NOT MONITORED, OFF WATCH		PLdn	TUE
12144kHz 1920z	26/07		NOT MONITORED, OFF WATCH		PLdn	TUE
11044kHz 1930z	26/07		NOT MONITORED, OFF WATCH		PLdn	TUE
10344kHz 1940z	26/07		NOT MONITORED, OFF WATCH		PLdn	TUE
9244kHz 1950z	26/07		NOT MONITORED, OFF WATCH		PLdn	TUE
14644kHz 1900z	31/07	Strong	1m40s		PLdn	SUN
13444kHz 1910z	31/07	Strong	1m40s		PLdn	SUN
12144kHz 1920z	31/07	Strong	1m40s		PLdn	SUN
11044kHz 1930z	31/07	Fair	1m40s		PLdn	SUN
10344kHz 1940z	31/07	Weak	1m40s		PLdn	SUN
9244kHz 1950z	31/07		NOT MONITORED		PLdn	SUN

August 2022

SUN/TUE

14918kHz 1900z	02/08	Weak	1m40s		PLdn	TUE
13918kHz 1910z	02/08	Faie	1m40s		PLdn	TUE
12218kHz 1920z	02/08	Strong	1m40s		PLdn	TUE
11118kHz 1930z	02/08	Strong	1m40s		PLdn	TUE
10218kHz 1940z	02/08	Strong	1m40s		PLdn	TUE
9118kHz 1950z	02/08	Fair	1m40s		PLdn	TUE
14918kHz 1900z	07/08	Weak	1m40s		PLdn	SUN
13918kHz 1910z	07/08	Weak	1m40s		PLdn	SUN
12218kHz 1920z	07/08	Strong	1m40s		PLdn	SUN
11118kHz 1930z	07/08	Weak	1m40s		PLdn	SUN
10218kHz 1940z	07/08	Weak	1m40s		PLdn	SUN
9118kHz 1950z	07/08	Weak	1m40s		PLdn	SUN
14918kHz 1900z	09/08	Strong	4m30s		PLdn	TUE
13918kHz 1910z	09/08	Strong	4m30s		PLdn	TUE
12218kHz 1920z	09/08	Strong	4m30s		PLdn	TUE
11118kHz 1930z	09/08	Strong	4m30s		PLdn	TUE
10218kHz 1940z	09/08	Strong	4m30s		PLdn	TUE
9118kHz 1950z	09/08	Strong	4m30s		PLdn	TUE
14918kHz 1900z	14/08	Strong	4m30s		PLdn	SUN
13918kHz 1910z	14/08	Strong	4m30s		PLdn	SUN
12218kHz 1920z	14/08	Strong	4m30s		PLdn	SUN
11118kHz 1930z	14/08	Strong	4m30s		PLdn	SUN
10218kHz 1940z	14/08	Strong	4m30s		PLdn	SUN
9118kHz 1950z	14/08	Strong	4m30s		PLdn	SUN
14918kHz 1900z	16/08	Strong	4m30s		PLdn	TUE
13918kHz 1910z	16/08	Strong	4m30s		PLdn	TUE
12218kHz 1920z	16/08	Strong	4m30s		PLdn	TUE
11118kHz 1930z	16/08	Strong	4m30s		PLdn	TUE
10218kHz 1940z	16/08	Strong	4m30s		PLdn	TUE
9118kHz 1950z	16/08	Strong	4m30s		PLdn	TUE
14918kHz 1900z	21/08	Strong	4m30s		PLdn	SUN
13918kHz 1910z	21/08	Strong	4m30s		PLdn	SUN
12218kHz 1920z	21/08	Strong	4m30s		PLdn	SUN
11118kHz 1930z	21/08	Strong	4m30s		PLdn	SUN
10218kHz 1940z	21/08	Strong	4m30s		PLdn	SUN
9118kHz 1950z	21/08	Strong	4m30s		PLdn	SUN
14918kHz 1900z	23/08	Strong	4m30s		PLdn	TUE
13918kHz 1910z	23/08	Strong	4m30s		PLdn	TUE
12218kHz 1920z	23/08	Fair	4m30s		PLdn	TUE
11118kHz 1930z	23/08	Fair	4m30s	QRM3	PLdn	TUE
10218kHz 1940z	23/08	Strong	4m30s		PLdn	TUE
9118kHz 1950z	23/08	Strong	4m30s		PLdn	TUE
14918kHz 1900z	28/08	Strong	4m30s		PLdn	SUN
13918kHz 1910z	28/08	Strong	4m30s		PLdn	SUN
12218kHz 1920z	28/08	Fair	4m30s		PLdn	SUN
11118kHz 1930z	28/08	Fair	4m30s		PLdn	SUN
10218kHz 1940z	28/08	Fair	4m30s	QRM2	PLdn	SUN
9118kHz 1950z	28/08	Strong	4m30s		PLdn	SUN
14918kHz 1900z	30/08	Fair	2m16s		PLdn	TUE
13918kHz 1910z	30/08	Strong	2m16s		PLdn	TUE
12218kHz 1920z	30/08	Strong	2m16s		PLdn	TUE
11118kHz 1930z	30/08	Fair	2m16s		PLdn	TUE
10218kHz 1940z	30/08	Strong	2m16s		PLdn	TUE
9118kHz 1950z	30/08	Strong	2m16s		PLdn	TUE

July 2022**MON/SAT**

15876kHz	1200z	02/07	Weak	1m40s	PLdn	SAT
14876kHz	1210z	02/07	NRH		PLdn	SAT
14376kHz	1220z	02/07	Fair	1m40s	PLdn	SAT
13976kHz	1230z	02/07	Fair	1m40s	PLdn	SAT
13376kHz	1240z	02/07	Fair	1m40s	PLdn	SAT
12176kHz	1250z	02/07	Weak	1m40s	PLdn	SAT
15876kHz	1200z	04/07	Weak	4m28s	PLdn	MON
14876kHz	1210z	04/07	NRH		PLdn	MON
14376kHz	1220z	04/07	Weak	4m28s	PLdn	MON
13976kHz	1230z	04/07	NRH		PLdn	MON
13376kHz	1240z	04/07	Weak	4m28s	PLdn	MON
12176kHz	1250z	04/07	Weak	4m28s	PLdn	MON
15876kHz	1200z	09/07	Weak	4m28s QRM3	PLdn	SAT
14876kHz	1210z	09/07	Weak	4m28s	PLdn	SAT
14376kHz	1220z	09/07	Strong	4m28s	PLdn	SAT
13976kHz	1230z	09/07	Strong	4m28s QRM3	PLdn	SAT
13376kHz	1240z	09/07	Fair	4m28s QRM4	PLdn	SAT
12176kHz	1250z	09/07	Weak	4m28s	PLdn	SAT
15876kHz	1200z	11/07	Weak	4m28s	PLdn	MON
14876kHz	1210z	11/07	Weak	4m28s QRM3	PLdn	MON
14376kHz	1220z	11/07	Weak	4m28s QRM3	PLdn	MON
13976kHz	1230z	11/07	Weak	4m28s QRM3	PLdn	MON
13376kHz	1240z	11/07	Weak	4m28s	PLdn	MON
12176kHz	1250z	11/07	Weak	4m28s	PLdn	MON
15876kHz	1200z	16/07	Weak	4m28s QRM3	PLdn	SAT
14876kHz	1210z	16/07	Weak	4m28s QRM3	PLdn	SAT
14376kHz	1220z	16/07	Weak	4m28s QRM3	PLdn	SAT
13976kHz	1230z	16/07	Unworkable		PLdn	SAT
13376kHz	1240z	16/07	Unworkable		PLdn	SAT
12176kHz	1250z	16/07	NRH		PLdn	SAT
15876kHz	1200z	18/07	Fair	1m40s	PLdn	MON
14876kHz	1210z	18/07	NRH		PLdn	MON
14376kHz	1220z	18/07	Weak	1m40s	PLdn	MON
13976kHz	1230z	18/07	Weak	1m40s	PLdn	MON
13376kHz	1240z	18/07	Weak	1m40s	PLdn	MON
12176kHz	1250z	18/07	Weak	1m40s	PLdn	MON
15876kHz	1200z	23/07	Weak	1m40s	PLdn	SAT
14876kHz	1210z	23/07	NRH	1m40s	PLdn	SAT
14376kHz	1220z	23/07	NRH	1m40s	PLdn	SAT
13976kHz	1230z	23/07	Weak	1m40s	PLdn	SAT
13376kHz	1240z	23/07	Weak	1m40s	PLdn	SAT
12176kHz	1250z	23/07	Weak	1m40s	PLdn	SAT
15876kHz	1200z	25/07		NOT MONITORED, OFF WATCH	PLdn	MON
14876kHz	1210z	25/07		NOT MONITORED, OFF WATCH	PLdn	MON
14376kHz	1220z	25/07		NOT MONITORED, OFF WATCH	PLdn	MON
13976kHz	1230z	25/07		NOT MONITORED, OFF WATCH	PLdn	MON
13376kHz	1240z	25/07		NOT MONITORED, OFF WATCH	PLdn	MON
12176kHz	1250z	25/07		NOT MONITORED, OFF WATCH	PLdn	MON
15876kHz	1200z	30/07	Weak	4m28s	PLdn	SAT
14876kHz	1210z	30/07	Fair	4m28s	PLdn	SAT
14376kHz	1220z	30/07	Fair	4m28s	PLdn	SAT
13976kHz	1230z	30/07	Fair	4m28s	PLdn	SAT
13376kHz	1240z	30/07	Fair	4m28s	PLdn	SAT
12176kHz	1250z	30/07	Weak	4m28s	PLdn	SAT

August 2022**MON/SAT**

15876kHz	1200z	01/08	Fair	1m40s	PLdn	MON
14876kHz	1200z	01/08	Weak	1m40s	PLdn	MON
14376kHz	1200z	01/08	Weak	1m40s	PLdn	MON
13976kHz	1200z	01/08	Weak	1m40s	PLdn	MON
13376kHz	1200z	01/08	Weak	1m40s	PLdn	MON
12176kHz	1200z	01/08	Weak	1m40s	PLdn	MON
15876kHz	1200z	06/08	Weak	1m40s	PLdn	SAT
14876kHz	1200z	06/08	NRH		PLdn	SAT
14376kHz	1200z	06/08	Weak	1m40s	PLdn	SAT
13976kHz	1200z	06/08	NRH		PLdn	SAT
13376kHz	1200z	06/08	Weak	1m40s	PLdn	SAT
12176kHz	1200z	06/08	Weak	1m40s	PLdn	SAT

15876kHz	1200z	08/08	Weak	4m28s		PLdn	MON
14876kHz	1200z	08/08	Fair	4m28s		PLdn	MON
14376kHz	1200z	08/08	Weak	4m28s		PLdn	MON
13976kHz	1200z	08/08	Weak	4m28s		PLdn	MON
13376kHz	1200z	08/08	Weak	4m28s		PLdn	MON
12176kHz	1200z	08/08	Weak	4m28s		PLdn	MON
15876kHz	1200z	13/08	Strong	4m28s		PLdn	SAT
14876kHz	1200z	13/08	Weak	4m28s		PLdn	SAT
14376kHz	1200z	13/08	Weak	4m28s		PLdn	SAT
13976kHz	1200z	13/08	Weak	4m28s		PLdn	SAT
13376kHz	1200z	13/08	Weak	4m28s		PLdn	SAT
12176kHz	1200z	13/08	Fair	4m28s	QRM3	PLdn	SAT
15876kHz	1200z	15/08	Weak	4m28s		PLdn	MON
14876kHz	1200z	15/08	Weak	4m28s		PLdn	MON
14376kHz	1200z	15/08	Weak	4m28s		PLdn	MON
13976kHz	1200z	15/08	Weak	4m28s		PLdn	MON
13376kHz	1200z	15/08	Weak	4m28s		PLdn	MON
12176kHz	1200z	15/08	NRH			PLdn	MON
15876kHz	1200z	20/08	Strong	4m30s		PLdn	SAT
14876kHz	1200z	20/08	Weak	4m30s		PLdn	SAT
14376kHz	1200z	20/08	Weak	4m30s		PLdn	SAT
13976kHz	1200z	20/08	NRH			PLdn	SAT
13376kHz	1200z	20/08	Weak	4m30s		PLdn	SAT
12176kHz	1200z	20/08	Weak	4m30s		PLdn	SAT
15876kHz	1200z	22/08	Weak	1m40s		PLdn	MON
14876kHz	1200z	22/08	Weak	1m40s		PLdn	MON
14376kHz	1200z	22/08	Weak	1m40s		PLdn	MON
13976kHz	1200z	22/08	Weak	1m40s		PLdn	MON
13376kHz	1200z	22/08	Weak	1m40s		PLdn	MON
12176kHz	1200z	22/08	Weak	1m40s		PLdn	MON
15876kHz	1200z	27/08	Strong	1m40s		PLdn	SAT
14876kHz	1200z	27/08	Fair	1m40s	QRM3	PLdn	SAT
14376kHz	1200z	27/08	Weak	1m40s	QRM3	PLdn	SAT
13976kHz	1200z	27/08	Weak	1m40s		PLdn	SAT
13376kHz	1200z	27/08	NRH			PLdn	SAT
12176kHz	1200z	27/08	NRH			PLdn	SAT
15876kHz	1200z	29/08	Fair	4m30s		PLdn	MON
14876kHz	1200z	29/08	Fair	4m30s	QRM2	PLdn	MON
14376kHz	1200z	29/08	Fair	4m30s		PLdn	MON
13976kHz	1200z	29/08	Fair	4m30s		PLdn	MON
13376kHz	1200z	29/08	Fair	4m30s		PLdn	MON
12176kHz	1200z	29/08	NRH			PLdn	MON

July 2022

WED/SAT

13884kHz	1100z	02/07	V.weak	unk		PLdn	SAT
13384kHz	1110z	02/07	V.weak	unk		PLdn	SAT
12184kHz	1120z	02/07	NRH			PLdn	SAT
11584kHz	1130z	02/07	NRH			PLdn	SAT
11084kHz	1140z	02/07	NRH			PLdn	SAT
10584kHz	1150z	02/07	NRH			PLdn	SAT
13884kHz	1100z	06/07	Weak	2m27s		PLdn	WED
13384kHz	1110z	06/07	V.strong	2m27s		PLdn	WED
12184kHz	1120z	06/07	Fair	2m27s		PLdn	WED
11584kHz	1130z	06/07	Fair	2m27s		PLdn	WED
11084kHz	1140z	06/07	NRH	2m27s		PLdn	WED
10584kHz	1150z	06/07	NRH	2m27s		PLdn	WED
13884kHz	1100z	09/07	Strong	2m28s		PLdn	SAT
13384kHz	1110z	09/07	Weak	2m28s	QRM4	PLdn	SAT
12184kHz	1120z	09/07	Weak	2m28s	QRM3	PLdn	SAT
11584kHz	1130z	09/07	NRH			PLdn	SAT
11084kHz	1140z	09/07	Weak	2m28s		PLdn	SAT
10584kHz	1150z	09/07	NRH			PLdn	SAT
13884kHz	1100z	13/07	Weak	2m27s		PLdn	WED
13384kHz	1110z	13/07	Weak	2m27s		PLdn	WED
12184kHz	1120z	13/07	Weak	2m27s		PLdn	WED
11584kHz	1130z	13/07	Weak	2m27s		PLdn	WED
11084kHz	1140z	13/07	NRH			PLdn	WED
10584kHz	1150z	13/07	NRH			PLdn	WED

13884kHz	1100z	16/07	Fair	2m27s	PLdn	SAT
13384kHz	1110z	16/07	Strong	2m27s	PLdn	SAT
12184kHz	1120z	16/07	Weak	2m27s	PLdn	SAT
11584kHz	1130z	16/07	NRH		PLdn	SAT
11084kHz	1140z	16/07	NRH		PLdn	SAT
10584kHz	1150z	16/07	NRH		PLdn	SAT
13884kHz	1100z	20/07		Not monitored, Lightning	PLdn	WED
13384kHz	1110z	20/07		Not monitored, Lightning	PLdn	WED
12184kHz	1120z	20/07		Not monitored, Lightning	PLdn	WED
11584kHz	1130z	20/07		Not monitored, Lightning	PLdn	WED
11084kHz	1140z	20/07		Not monitored, Lightning	PLdn	WED
10584kHz	1150z	20/07		Not monitored, Lightning	PLdn	WED
13884kHz	1100z	23/07	Strong	2m26s	PLdn	SAT
13384kHz	1110z	23/07	Strong	2m26s	PLdn	SAT
12184kHz	1120z	23/07	Fair	2m26s	PLdn	SAT
11584kHz	1130z	23/07	Weak	2m26s	PLdn	SAT
11084kHz	1140z	23/07	NRH		PLdn	SAT
10584kHz	1150z	23/07	Weak	2m26s	PLdn	SAT
13884kHz	1100z	27/07		NOT MONITORED, OFF WATCH	PLdn	WED
13384kHz	1110z	27/07		NOT MONITORED, OFF WATCH	PLdn	WED
12184kHz	1120z	27/07		NOT MONITORED, OFF WATCH	PLdn	WED
11584kHz	1130z	27/07		NOT MONITORED, OFF WATCH	PLdn	WED
11084kHz	1140z	27/07		NOT MONITORED, OFF WATCH	PLdn	WED
10584kHz	1150z	27/07		NOT MONITORED, OFF WATCH	PLdn	WED
13884kHz	1100z	30/07	Fair	2m27s	PLdn	SAT
13384kHz	1110z	30/07	Strong	2m27s	PLdn	SAT
12184kHz	1120z	30/07	Weak	2m27s	PLdn	SAT
11584kHz	1130z	30/07	Weak	2m27s	PLdn	SAT
11084kHz	1140z	30/07	Weak	2m27s	PLdn	SAT
10584kHz	1150z	30/07	Weak	2m27s	PLdn	SAT
August 2022						
13567kHz	1100z	03/08		Unworkable	PLdn	WED
13367kHz	1110z	03/08		Unworkable	PLdn	WED
12167kHz	1120z	03/08		NRH	PLdn	WED
11567kHz	1130z	03/08		NRH	PLdn	WED
11067kHz	1140z	03/08		NRH	PLdn	WED
10567kHz	1150z	03/08		NRH	PLdn	WED
13567kHz	1100z	06/08	Weak	2m27s	PLdn	SAT
13367kHz	1110z	06/08	Weak	2m27s	PLdn	SAT
12167kHz	1120z	06/08	Weak	2m27s	PLdn	SAT
11567kHz	1130z	06/08	NRH		PLdn	SAT
11067kHz	1140z	06/08	Weak	2m27s	PLdn	SAT
10567kHz	1150z	06/08	Weak	2m27s	PLdn	SAT
13567kHz	1100z	10/08	Weak	1m40s	PLdn	WED
13367kHz	1110z	10/08	Weak	1m40s	PLdn	WED
12167kHz	1120z	10/08	Weak	1m40s	PLdn	WED
11567kHz	1130z	10/08	NRH		PLdn	WED
11067kHz	1140z	10/08	Weak	1m40s	PLdn	WED
10567kHz	1150z	10/08	Weak	1m40s	PLdn	WED
13567kHz	1100z	13/08	Weak	2m27s	PLdn	SAT
13367kHz	1110z	13/08	Weak	2m27s	PLdn	SAT
12167kHz	1120z	13/08	Weak	2m27s	PLdn	SAT
11567kHz	1130z	13/08	Weak	2m27s	PLdn	SAT
11067kHz	1140z	13/08	Weak	2m27s	PLdn	SAT
10567kHz	1150z	13/08	NRH		PLdn	SAT
13567kHz	1100z	17/08	Weak	2m27s	PLdn	WED
13367kHz	1110z	17/08	Weak	2m27s	PLdn	WED
12167kHz	1120z	17/08	Weak	2m27s	PLdn	WED
11567kHz	1130z	17/08	Weak	2m27s	PLdn	WED
11067kHz	1140z	17/08	Weak	2m27s	PLdn	WED
10567kHz	1150z	17/08	Weak	2m27s	PLdn	WED
13567kHz	1100z	20/08	Fair	4m30s	PLdn	SAT
13367kHz	1110z	20/08	Weak	4m30s	PLdn	SAT
12167kHz	1120z	20/08	Weak	4m30s	PLdn	SAT
11567kHz	1130z	20/08	Weak	4m30s	PLdn	SAT
11067kHz	1140z	20/08	Weak	4m30s	PLdn	SAT
10567kHz	1150z	20/08	Weak	4m30s	PLdn	SAT

13567kHz 1100z	24/08	Very weak	4m30s	PLdn	WED
13367kHz 1110z	24/08	Very weak	4m30s	PLdn	WED
12167kHz 1120z	24/08	Very weak	4m30s	PLdn	WED
11567kHz 1130z	24/08	NRH		PLdn	WED
11067kHz 1140z	24/08	Weak	4m30s	PLdn	WED
10567kHz 1150z	24/08	Weak	4m30s	PLdn	WED
13567kHz 1100z	27/08	Strong	2m27s	PLdn	SAT
13367kHz 1110z	27/08	Strong	2m27s	PLdn	SAT
12167kHz 1120z	27/08	Weak	2m27s	PLdn	SAT
11567kHz 1130z	27/08	Weak	2m27s	PLdn	SAT
11067kHz 1140z	27/08	NRH	2m27s	PLdn	SAT
10567kHz 1150z	27/08	NRH	2m27s	PLdn	SAT
13567kHz 1100z	31/08	Weak	2m27s	PLdn	WED
13367kHz 1110z	31/08	Weak	2m27s	PLdn	WED
12167kHz 1120z	31/08	Weak	2m27s	PLdn	WED
11567kHz 1130z	31/08	NRH		PLdn	WED
11067kHz 1140z	31/08	Weak	2m27s	PLdn	WED
10567kHz 1150z	31/08	Weak	2m27s	PLdn	WED

Other XPB1 from H-FD

1B XPB1

Mon 04.07.2022 0500Z 11169 msg 4:29
Mon 04.07.2022 0510Z 11469 msg
Mon 04.07.2022 0520Z 12169 msg
Mon 04.07.2022 0530Z 13369 msg
Mon 04.07.2022 0540Z 13969 msg
Mon 04.07.2022 0550Z 14569 msg

Mon 08.08.2022 0500Z 11559 msg 2:16
Mon 08.08.2022 0510Z 12159 msg
Mon 08.08.2022 0520Z 13459 msg
Mon 08.08.2022 0530Z 13959 msg
Mon 08.08.2022 0540Z 14459 msg
Mon 08.08.2022 0550Z 14959 msg

F06a via Ary

19478 06-08-2022 2100 F06a FSK 200/1000 Russian diplo/intel. File 04432
15975 06-08-2022 2115 F06a FSK 200/1000 Russian diplo/intel. File 04432
13917 06-08-2022 2130 F06a FSK 200/1000 Russian diplo/intel. File 04432

X06 Mazeilka

X06 Mazielka (1c) logs section

Date	Day	UTC	Freq	Scale	Monitor	Comments
20220701	Fri	0819	13556	324615	Ary/NL	TX to Madrid, G52, no end time
20220703	Sun	1657-1701	10794	1--6--	XAH	Strong X06b
20220703	Sun	1720-1721	13368	1--6--	Radiotekhnika, XAH	Strong X06b
20220703	Sun	1736-1738	10794	616-13	XAH	Strong X06b
20220704	Mon	1548-1549	10780	6----	Schorschi	Strong X06d
20220704	Mon		14392	532614	Radiotekhnika	TX to Paris, G4, no time info
20220707	Thu	0714	19511	314265	Andrew/SE	TX to Antananarivo, G380
20220707	Thu	0722-0724	12219	162543	Andrew	TX to Nicosia, G39
20220707	Thu	0812-0838	18360	1--6--	Radiotekhnika	X06b
20220707	Thu	1322-1327	17468	436512	Dave/AU	TX to Harare, G44
20220708	Fri	0454-0501	15920	216435	Andrew	TX to Dhaka, R
20220708	Fri	0831-0835	12177	356412	Andrew	TX to Berlin, G126
20220710	Sun	1045-1048	15810	145632	Andrew	TX to Algiers, G135
20220710	Sun	1139-1144	15710	261453	Andrew	TX to Cairo, G138
20220711	Mon	0818-0830	20690	156234	Radiotekhnika, Dave	TX to Kampala, G68
20220711	Mon	0830-0833	11537	421635	Radiotekhnika, Dave	TX to Oslo, G74(1)

20220711	Mon	0934-0941	16117	463125	Andrew	TX to Rabat, G77
20220711	Mon	1301-1313	12177	364152	Andrew	Alert 2 (New Delhi, G73) 1(2)
20220711	Mon	1313-1320	14683	364152	Andrew	2.2(3)
20220711	Mon	1331-1349	14569	1--6--	Radiotehnika	X06b
20220712	Tue	0754-0756	13420	534216	Andrew	TX to Bagdad, G87
20220712	Tue	0856-0913	14861	542136	Andrew	TX to Beijing, G88
20220712	Tue	1002-1007	17520	612534	Dave, Ary	TX to Ashgabat, G89
20220712	Tue	1017-1026	17470	216354	Dave, Ary	TX to Chennai, G388
20220713	Wed	0726	13369	435621	Radiotehnika	TX to Maputo, G98
20220713	Wed	0813-0816	13441	263145	Radiotehnika	TX to Prague, G428
20220713	Wed	0813-0817	10172	465132	Radiotehnika	TX to Sofia, G100
20220713	Wed	1004	14935	1--6--	Andrew	X06b
20220713	Wed	1013	11084	1--6--	Andrew	X06b
20220713	Wed	1015	13884	1--6--	Andrew	X06b(4)
20220714	Thu	0753-0756	7988	561243	Andrew	TX to Helsinki, G117
20220714	Thu	0817-0822	13843	153624	Andrew	TX to Damascus, G249
20220714	Thu	0945-0954	13506	164532	Andrew	TX to Dublin, G106
20220717	Sun	0641-0642	13391	1--6--	Radiotehnika	X06b
20220717	Sun	0644	14891	1--6--	Radiotehnika	T101 X06b
20220717	Sun	0646-0647	13391	1--6--	Radiotehnika	X06b
20220717	Sun	0714-0726	12130	452163	Radiotehnika	TX to Kabul, G403
20220718	Mon	0417	12168	1--6--	Radiotehnika	X06b
20220718	Mon	0647-0650	11638	165324	Andrew	TX to Vienna, G145
20220718	Mon	0714-0723	10175	263514	Andrew	G425
20220718	Mon	0734-0739	12152	-	Andrew	No scale info(5)
20220718	Mon	0739-0749	11526	432516	Andrew,	
				Vladdi		Alert 4 (TX to Bern, G341) 1(5)
20220718	Mon	0750-0754	14377	432516	Andrew	4.2
20220718	Mon	0754-0801	12152	432516	Andrew	4.3
20220718	Mon	0801-0807	10453	432516	Andrew	4.4
20220718	Mon	0819-0827	12199	532614	Andrew	TX to Paris, G147, spur on 12150kHz
20220719	Tue	0804-0809	14615	125643	Radiotehnika	TX to Ulanbatar, G383
20220719	Tue	0826-0831	13401	154263	Andrew	TX to Rome, G148
20220719	Tue	0830-0841	13411	165423	Vladdi	TX to Brussels, G151
20220719	Tue	0918-0926	17421	246531	Radiotehnika,	
				Dave		TX to Accra, G153
20220720	Wed	1109-1112	14650	215346	Andrew	TX to Mumbai, G167
20220721	Thu	0715-0720	19511	314265	Andrew	TX to Antananarivo
20220721	Thu	0808	13445	1--6--	Radiotehnika	X06b
20220721	Thu	0824	12220	6--1--	Radiotehnika	X06b
20220721	Thu	0926-0936	18197	645321	Andrew	TX to Ho Chi Minh City, G417
20220721	Thu	1008	17435	1--6--	Radiotehnika	X06b
20220721	Thu	1019	12188	1----	Radiotehnika	X06d
20220802	Tue	0750-0758	12156	165423	Ary	TX to Brussels, G12
20220805	Fri	0859	14570	324615	HFD	TX to Madrid, G52, no end time
20220807	Sun	1811-1812	12218	1--6--	XAH	X06b
20220808	Mon	0939	16117	463125	Ary	TX to Rabat, G77
20220809	Tue	0821	17523	542136	Ary	TX to Beijing, G88
20220812	Fri	0630	15920	216435	Ary	TX to Dhaka, G439 (new)
20220815	Mon	0810	12133	263514	Ary	G425
20220816	Tue	0611-0614	19246	1--6--	Eddy/AU	X06b
20220817	Wed	1103	16115	215346	Ary	TX to Mumbai, G167
20220818	Thu	0705	17517	314265	Ary	TX to Antananarivo, G178
20220818	Thu	1327	16277	436512	Ary	TX to Harare, G180
20220819	Fri	0845-0852	14425	213546	Andrew	TX to Islamabad, G390
20220819	Fri	1040-1047	14824	625413	Andrew, Ary	TX to Tel Aviv, G193
20220822	Mon	0811	11537	421635	Ary	TX to Oslo, G220
20220822	Mon	0820-0825	17475	156234	Dave	TX to Kampala, G203
20220822	Mon	1238-1250	12177	364152	Dave	TX to New Delhi, G73
20220824	Wed	1021	12167	16-161	Andrew	X06b
20220824	Wed	1120	14719	16-161	Anon	X06b
20220825	Thu	0704-0705	14419	521634	Andrew	TX to Bucharest, G261
20220828	Sun	1114-1118	15810	145632	Andrew	TX to Algiers, G284
20220828	Sun	1146-1149	15710	261453	Andrew	TX to Cairo, G285

1) 11537 probably started with other transmitter on 11531; then out on 11531 and started on 11537

2) MFSK66: 1325-1328 UTC

3) MFSK66: 1248-1300 UTC and again 1330-1332

4) With noise near base in between tones

5) Tone change on 0740 UTC from the same scale as before on 12152 kHz

Many nice thanks to all contributors as usual.

Till the next issue I say "Good-bye" - and please stay safe!

Tnx Jochen Schäfer, Numbers-, X06 Database and Teamkopf

Hybrids

HM01

From Ary:

1 Aug repeat of 30 June
2, 3, 4 August no transmissions

11435 05-08-2022 1600 HM01 late start
1608z Radio Habana Cuba followed by HM01 repeating a message of 24-6-2021 and files sent in RDFT
33181 11747 11183 82285 71264 87747
Files 10323318.TXT 50721174.FIC 30161118.TXT 36048228.FIG 01667126.TXT 36858774.FIG

1624z new groups and files sent in WinDRM
22836 21581 05813 67101 27041 21617

Files
80172283.TXT
31752158.TXT
74000581.TXT
48786710.TXT
07752704.TXT
50562161.FIC

Of HM01 Ary writes:

I couldn't find any transmissions from our Cuban friends on 19-08 between 1600 and 2400z.

Today they sent some odd stuff. A test I presume. After each group the same file was sent with callsign QWERTY01.

11462 kHz 20-08-2022 0530z HM01 AM/WinDRM
Callup: 02323 76136 22851 02761 11856 82407
Groups + file: 02323 76134 76136 22851 22851 02761 02761 11855 11856 82406 82407 02322

callsign QWERTY01
File: 12418240.TXT

11462 kHz 20-08-2022 0558z HM01 AM/WinDRM Should be on 14375 kHz. Off at 0610z
Callup: 02323 76136 22851 02761 11856 82407
Groups + file: 02323 76134 76136 22851 22851 02761 02761 11855 11856 82406 82407 02322

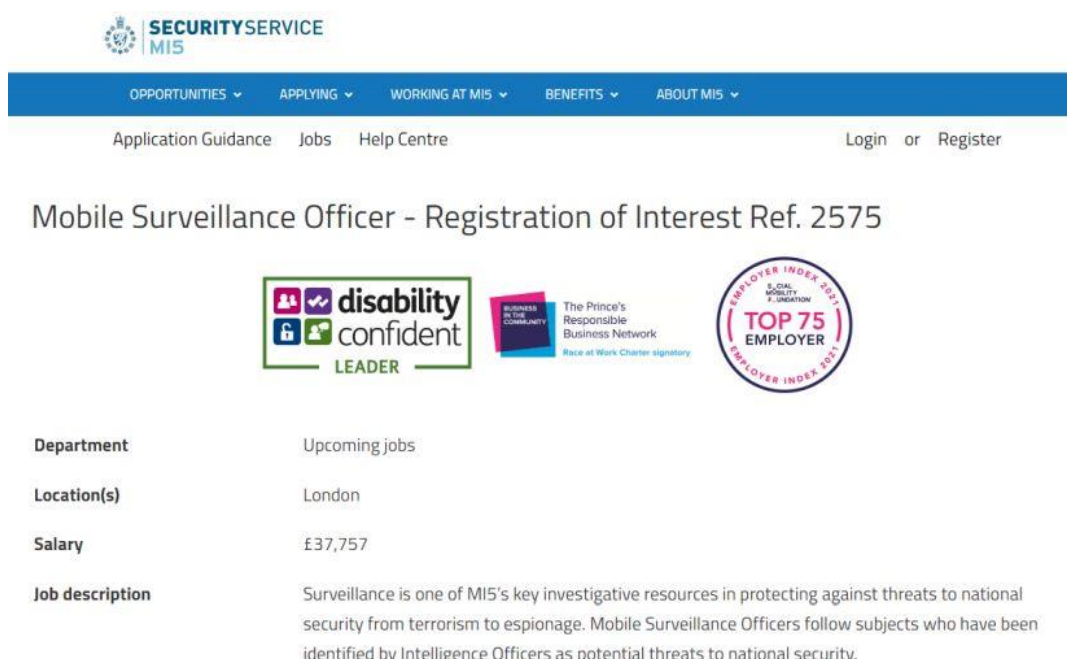
callsign QWERTY01
File: 12418240.TXT

11435 20-08-2022 1615 HM01 AM/WinDRM i.p.	Ary	SAT
02324 76137 22852 02762 11857 82408		

Callsign QWERTY01
Files
36680232.FIG
50727613.FIC
36412285.FIG
22110276.TXT
12261185.TXT
12418240.TXT

Gizza Job

This first advertisement was sent to me by person unknown but a supporter of ENIGMA2000 [many thanks indeed]:



The screenshot shows the Security Service MIS website. At the top is a blue navigation bar with links: OPPORTUNITIES, APPLYING, WORKING AT MIS, BENEFITS, and ABOUT MIS. Below this is a secondary bar with links: Application Guidance, Jobs, Help Centre, and Login or Register. The main heading is "Mobile Surveillance Officer - Registration of Interest Ref. 2575". Below the heading are three logos: "disability confident LEADER", "The Prince's Responsible Business Network", and "TOP 75 EMPLOYER". A table lists job details: Department (Upcoming jobs), Location(s) (London), Salary (£37,757), and Job description (Surveillance is one of MIS's key investigative resources in protecting against threats to national security from terrorism to espionage. Mobile Surveillance Officers follow subjects who have been identified by Intelligence Officers as potential threats to national security).

Department	Upcoming jobs
Location(s)	London
Salary	£37,757
Job description	Surveillance is one of MIS's key investigative resources in protecting against threats to national security from terrorism to espionage. Mobile Surveillance Officers follow subjects who have been identified by Intelligence Officers as potential threats to national security.

The advert is not in its entirety for reasons that are obvious.

Dutch intelligence services easily recruiting spies due to tensions with Russia, China

<https://nltimes.nl/2022/08/04/dutch-intelligence-services-easily-recruiting-spies-due-tensions-russia-china>

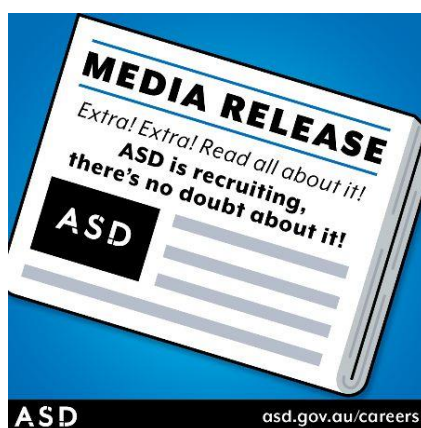
The increasingly grim relations with Russia and China are making it easier for the Dutch intelligence services to recruit new spies - even despite the staff shortages in the labor market, De Telegraaf reports.

IT specialists are in high demand throughout the Netherlands. But over the past months, general intelligence service AIVD and military intelligence service MIVD received more applications from this field for their masterclass than they could allow.

"In the past few months, the importance of national security has become very painfully clear," Simone Smit, deputy director of the AIVD, said at the Summer School the services are holding to recruit young cyber talent.

"We are looking for ordinary people with special skills who deliver exceptional performances for us," said Sebastian Reyn, deputy head of the MIVD. "The digital threat posed by Russia and China is very extensive and growing. The conflicts of interest with those countries have intensified."

<https://nltimes.nl/2022/08/04/dutch-intelligence-services-easily-recruiting-spies-due-tensions-russia-china>





GCHQ is currently advertising for jobs in Greater Manchester There are a wide variety of roles available at GCHQ's Manchester headquarters

<https://www.manchestereveningnews.co.uk/news/uk-news/gchq-currently-advertising-jobs-greater-24760025?s=09>

The Government Communication Headquarters is currently hiring for some top positions at its Manchester-based office in Cheltenham.

It's one among many other offices located in Scarborough, Lincolnshire, Cornwall and London. The Manchester office only opened very recently in late 2019 but since then it has been frequently job offering positions for people in the region.

The main goal of GCHQ is to 'keep our country safe' which you could have a part play in by joining a national organisation that's over 100 years old. You may even have the opportunity to play out your James Bond fantasies as the organisation works closely with MI5 and MI6 to counter sophisticated threats against the UK such as terrorism and cyber attacks.

If you want to be 'at the heart of the nation's security' check out the jobs listed below which are based in Manchester.

NCSC Head of User Research

Role: The NCSC is the UK government's authority when it comes to cyber security. The key aim of the sub-organisation is to provide safety in the UK to do business online through the use of innovative digital delivery techniques and digital services.

This new role will help establish and embed a user-centred, evidence-based approach to service design and delivery for the NCSC's portfolio of digital services. As part of the role, you will lead research activities and provide a voice on user research in engagements with other digital leaders across NCSC and GCHQ.

Job requirements:

Experience and understanding of a range of user centred service design and delivery practices.

The ability to understand what problem we are trying to solve, and align user research activities to inform decision making.

Experience and understanding of a range of user research methods, when to use those methods and how to apply them correctly.

Experience and understanding of a range of techniques for analysis of research data, synthesis of findings, and presentation of clear findings.

Experience of working with colleagues to plan and do continuous user research in a multidisciplinary team.

<https://www.manchestereveningnews.co.uk/news/uk-news/gchq-currently-advertising-jobs-greater-24760025?s=09>

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It's not spying Is it a precursor or just a financial convenience? Read on.....

Hawaii couple charged with stealing IDs of dead Texas kids

By JENNIFER SINCO KELLEHER and BRIAN MELLEY

July 28, 2022

<https://apnews.com/article/texas-hawaii-identity-theft-us-coast-guard-a565a58855531e21c31fa48217174293>

HONOLULU (AP) — A U.S. defense contractor and his wife who lived for decades under the identities of two dead Texas children have been charged with identity theft and conspiring against the government, according to federal court records unsealed in Honolulu.

Walter Glenn Primrose and Gwynn Darle Morrison, both in their 60s, who allegedly lived for decades under the names Bobby Edward Fort and Julie Lyn Montague, respectively, were arrested Friday in Kapolei on the island of Oahu.

Prosecutors are seeking to have the couple held without bail, which could indicate the case is about more than fraudulently obtaining drivers' licenses, passports and Defense Department credentials.

Those documents helped Primrose get secret security clearance with the U.S. Coast Guard and as a defense contractor and old photos show the couple wearing uniforms of the KGB, the former Russian spy agency, Assistant U.S. Attorney Thomas Muehleck said in court papers. Faded Polaroids of each in uniform were included in the motion to have them held.

A “close associate” said Morrison lived in Romania while it was a Soviet bloc country, Muehleck said.

Morrison’s attorney said her client never lived in Romania and that she and Primrose tried the same jacket on as a joke and posed for photos in it. Even if the couple used new identities, attorney Megan Kau told The Associated Press, they have lived law-abiding lives for three decades.

“She wants everyone to know she’s not a spy,” Kau said. “This has all been blown way out of proportion. It’s government overreaching.”

Prosecutors said there is a high risk the couple would flee if freed. They also suggested that Primrose, who was an avionics electrical technician in the Coast Guard, was highly skilled to communicate secretly if released.

The couple is also believed to have other aliases, Muehleck said.

A lawyer for Primrose declined comment. A bail hearing was scheduled for Thursday in U.S. District Court.

The secret clearance Primrose had provides access to information that is “enormously valuable to our enemies,” said Kevin O’Grady, a Honolulu defense attorney not involved in the case.

The Coast Guard works closely with the Army and Navy, helps with counterintelligence and serves as the country’s maritime border patrol, said O’Grady, an Army reservist and lieutenant colonel judge advocate.

“The Coast Guard has a unique perspective on our vulnerabilities,” he said, including how to infiltrate the country through water ports. Hawaii, a major military center, “is a prime target for a lot of espionage and such,” he said.

For one family whose deceased child’s name was stolen, the news Wednesday came as a shock.

John Montague, who lost his daughter Julie in 1968 at 3 weeks of age, was stunned to learn someone had been living under her name for so long.

“I still can’t believe it happened,” Montague, 91, told AP. “The odds are like one-in-a-trillion that they found her and used her name. People stoop to do anything nowadays. Let kids rest in peace.”

Primrose and Morrison were born in 1955 and they attended high school together in Port Lavaca, Texas, and then went to Stephen F. Austin University, according to court records. They married in 1980.

There is no indication in court papers why the couple in 1987 assumed the identities of deceased children who would have been more than a decade younger than them. But an affidavit filed by Special Agent Dennis Thomas of the State Department’s Diplomatic Security Service noted that the couple lost their home in Nacogdoches, Texas, to foreclosure that year.

They remarried under their assumed names in 1988, Thomas said.

Court records don’t provide any information about what happened from the time they assumed their new identities until 1994, when Primrose, then about 39, enlisted in the Coast Guard as Fort, who would have been about 27.

If there was an obvious age discrepancy between what Primrose looked like and the birth certificate he presented, “that’s an abject failure,” O’Grady said.

“That’s something if they can figure it out now, they should have caught it then,” he said.

Montague said that “somebody’s not doing their jobs.”

Primrose and Morrison applied for and received multiple passports under their assumed names, according to court records. But in 1999 Primrose also applied for and was issued a passport under his legal name while also holding a passport in Fort’s name.

Primrose was in the service until 2016, when he began work for an unnamed defense contractor at the U.S. Coast Guard Air station at Barbers Point.

“While he held that secret clearance with the U.S. Coast Guard, defendant Primrose was required to report any foreign travel,” prosecutors wrote. “Investigation has revealed that defendant Primrose did not report several trips to Canada while he did report other foreign travel.”

The couple lived in a Honolulu suburb in a modest two-bedroom bungalow beneath palm trees. They owned a neighboring house they rented to military personnel, said Mai Ly Schara, who lived next door.

She knew them as Bob and Lynn, with Morrison apparently Julie Lyn Montague’s middle name.

Primrose did yard work for Schara for \$50 a month, she said. Morrison took in, fed and spayed and neutered cats. She also had several rabbits and dedicated a room to the pets.

“They kept to themselves, but they were friendly,” Schara said. “They just kind of were, like, a little nerdy.”

Schara wasn’t sure what Primrose did for a living, but thought it was military related. Morrison once worked as a parking attendant at a Waikiki hotel but had been tutoring neighborhood children.

The FBI created a scene in the quiet neighborhood when they searched the house and took photos.

“It was just shocking, like, oh my gosh,” Schara said. “It was pretty crazy.”

The State Department declined to comment on the arrests.

The couple is charged with conspiracy to commit an offense against the U.S., false statement in passport application and aggravated identity theft.

Fort, who lived fewer than three months, died in October 1967 at the same hospital where Julie Montague passed away about three months later in January 1968.

They are buried 14 miles (23 kilometers) apart.

When Tonda Ferguson learned from her father that Morrison had used her late sister's birth certificate to create an alias, she thought of her mother, who died in 2003, and how many years had gone by.

"For all the mothers who are living and have to know this happened to their babies, I can't even begin to imagine," Ferguson said. "I'm glad my mama's with the Lord. This would be so traumatic for her."

Ferguson was in eighth grade when her sister died. She never got to see her little sister or hold her. She was buried in Burnet, Texas, the small town where they lived at the time outside of Austin.

"She came from a place of love, deep love," Ferguson said. "For someone to turn around to steal her identity for evil, it's tough. It's hurtful. ... I hope they rot."

Melley reported from Los Angeles. Caleb Jones in Kapolei, Hawaii, and Rhonda Shafner in New York City contributed to this report.

<https://apnews.com/article/texas-hawaii-identity-theft-us-coast-guard-a565a58855531e21c31fa48217174293>

Why The Chinese Spy Ship Yuan Wang 5 Has Sparked A Storm And What Are India's Concerns

By: Manoj Gupta

Last Updated: AUGUST 01, 2022, 19:06 IST
New Delhi, India

<https://www.news18.com/news/india/exclusive-why-the-chinese-spy-ship-yuan-wang-5-has-sparked-a-storm-and-what-are-indias-concerns-5667763.html>

Yuan Wang 5 is a dual-use spy vessel, employed for space and satellite tracking and with specific usage in intercontinental ballistic missile launches. (Pic/brisl.org) Intelligence sources say there is a strong possibility that the vessel, which will be in Sri Lanka's Hambantota Port from August 11 to 17, is equipped with high-tech eavesdropping equipment to peer deep into Indian territory

Intelligence sources have shared exclusive details with CNN-News18 about the Chinese spy ship Yuan Wang 5 and the real purpose of its latest voyage.

Yuan Wang 5 is a dual-use spy vessel, employed for space and satellite tracking and with specific usage in intercontinental ballistic missile launches.

This vessel is in control of the People's Liberation Army (PLA) under its Strategic Support Force unit. The SSF focuses on space, cyber, and electronic warfare.

Yuan Wang 5 is a third-generation tracking ship of the Yuan Wang Series, which came into service on September 29, 2007, and was designed by China's 708 Research Institute.

It is a highly sophisticated missile range instrumentation ship with top-of-the-line antennas and electronic equipment to support the launching and tracking of missiles and rockets.

They are used by the navies of China, France, India, Russia, and the United States, mainly for military purposes.

This vessel in question is coming to Hambantota Port on August 11 and will stay there until August 17. Sri Lanka has received a request for fuel and other supplies during the stay.

As per the available intelligence, after this stay, the Yuan Wang 5 will move to the Indian Ocean for other research like space tracking and satellite operation monitoring.

Sources say there is a strong possibility that the vessel is equipped with high-tech eavesdropping equipment to peer deep into Indian territory.

Indian naval bases on the east coast and ISRO launch stations at Chandipur are all vulnerable in the presence of such a vessel, they added.

While China has termed it routine research activity, Indian agencies are sceptical.

According to sources, China has timed this activity precisely to exploit Sri Lanka's economic crisis to ensure Lankan ports become Chinese naval bases that can be used later by the PLA. The Chinese are embarrassing Lankans at this time to mainly spy on India, they added.

Intelligence sources also say that if this is a normal activity, why are the Chinese worried about the presence of American ships in their periphery for which they have raised strong objections? For instance, Beijing has been punishing South Korea by restricting tourism and holding trade hostage over the deployment of a US Terminal High Altitude Area Defense (THAAD) anti-missile battery in 2016.

<https://www.news18.com/news/india/exclusive-why-the-chinese-spy-ship-yuan-wang-5-has-sparked-a-storm-and-what-are-indias-concerns-5667763.html>

Chart Section Index

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XPA2 schedules m, p and Wed/Fri

September 2022

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Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID, ...	Oct kHz, ID, ...
x	x	x	x	x			0000		F01	01A	17471	17471
x	x	x	x	x	x	x	0000		V13	0	15890	18040
x				x			0010/0030/0050		M12	01B	14942/13942/12142 991	17429/16229/15929 429
x				x			0025/0035		F01	01A	15672/13892	14434/11439
	x			x			0030/0050/0110		M12	01B	6942/ 8142/ 9242 912	6837/ 8037/ 9237 802
x	x	x	x	x	x	x	0100		V13	0	15890	
	x		x				0100/0120/0140		M12	01B		16218/15918/14518 295
x				x			0125/0135		F01	01A	15672/13892	14434/11439
						x	0100/0120/0140		V07	01B	13535/12135/11135 511	15925/14725/13425 974
x	x	x	x	x	x	x	0200		V13	0	search (15388?)	search (15388?)
x							0210/0310		E06	01A	11426/14477 537	11528/14613 537
			x	x			0300/0400		E06	01A	13557/11521 361	16219/13545 361
x	x	x	x	x	x	x	0300		V13	0	search (15388?)	search (15388?)
		x	x				0315		E11	03	11092 25#	11092 25#
x	x	x	x	x	x	x	0400		V13	0	11430	15388
x	x	x	x	x			0400/0420		S06	01A	11616/ 9322 480	11616/ 9322 480
	x		x				0445		S11A	03	search	search
x							0450		E11	03	5371 41#	5371 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	18040, 15388	15388, 11430
	x		x				0500		S11A	03	14769 38#	14769 38#
x	x						0500/0510/0520 0530/0540/0550		XPB1	01B	13435/13935/14435 14835/15935/16225	13471/14771/15871 16271/17471/18271
x	x	x	x	x			0500/0520		M14	01A	12211/10243 952	12211/10243 952
	x		x				0500/0520/0540		XPA2	01B	search	search
			x	x			0500/0600	1/3	E06	01A	14370/16265 354	
x		x					0510		S11A	03	11116 65#	11116 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	8680 35#	8680 35#
x	x	x	x	x	x	x	0600		V13	0	16134, 11430	15388, 11430
	x						0600/0610		S06S	01A	15855/16485 438	15855/16485 438

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID, ...	Oct kHz, ID, ...
						x	0600/0620/0640		E07	01B	9261/10261/11461 224	10317/11117/12217 312
			x	x			0600/0700	1/3	E06	01B		18425/20230 186
	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							0630/0640		S06S	01A	22185/20050 462, check	22185/20050 462
x		x					0640		E11	03	14865 94#	14865 94#
	x		x				0645		E11	03	8423 51#	8423 51#
x		x		x		x	0655		HM01	18	9330	9330
	x		x		x		0655		HM01	18	13435	13435
x			x				0700		S11A	03	8597 47#	8597 47#
	x			x			0700		E11	03	8180 57#	8180 57#
					x	x	0700		E11	03	9079 49#	9079 49#
x	x	x	x	x	x	x	0700		V13	0	8169	8169
						x	0700		M01	01B	6510 463	6510 463
	x						0700/0710		S06S	01A	5760/ 6930 452	5760/ 6930 452
	x			x			0700/0720/0740		E07	01B	16354/18654/19353 363	15962/17462/18562 945
	x		x				0700/0720/0740		M12	01B	10836/10136/ 9136 811	
x		x					0700/0720/0740		XPA2	01B	12152/13552/13952	13372/14672/15872
	x			x			0710		M01A	14	10651 297/358	10651 297/358
		x	x				0710		M01A	14	9175 146/208	9175 146/208
	x		x				0710/0730/0750		XPA1	01B	10682/11571/12216	12167/13437/14972
x		x					0715		E11	03	15632 75#	15632 75#
	x			x			0715		E11	03	9963 63#	9963 63#
	x			x			0720		M01A	14	9151 728	9151 728
x	x						0730/0740		S06S	01A	7425/11560 427	7425/11560 427
x		x					0730/0740		S06S	01A	11530/12140 172	11530/12140 172
x			x				0745		E11	03	10213 26#	10213 26#
	x		x				0745		E11	03	14865 22#	14865 22#

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID, ...	Oct kHz, ID, ...
		x		x			0745		E11	03	17410 34#	17410 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	8169	8169
			x				0800/0810		E17Z	01A	14260/12930 217	14260/12930 217
	x						0800/0810		S06S	01A	11635/10420 127	11635/10420 127, check
					x		0800/0810	1	S06S	01A	10350/ 8520 132	10350/ 8520 132
	x			x			0800/0820/0840		M12	01B	search	search
		x				x	0800/0820/0840		M12	01B		17441/18641/19241 462
				x		x	0800/0820/0840		XPA2	01B	search	search
	x	x					0820		E11	03	19184 13#	19184 13#
			x	x			0820		E11	03	5941 43#	5941 43#
x				x			0830		E11	03	15905 18#	15905 18#
					x	x	0830		S11A	03	6433 37#, check	6433 37#
							0830/0840		S06S	01A	9220/ 8270 764	9220/ 8270 764
x		x					0830/0840		S06S	01A	9082/ 9952 464	9082/ 9952 464
				x			0830/0840		S06S	01A	12140/13515 156	12140/13515 156
x			x	x			0830/0930		S06	01A	19035/15645 842	20312/16237 842
x		x					0845		E11	03	12202 71#	12202 71#
	x		x				0845		E11	03	13908 15#	13908 15#
		x		x		x	0855		HM01	18	9240	9240
	x		x		x		0855		HM01	18	11462	11462
x		x					0900		E11	03	9968 53#	9968 53#
x							0900/0910		S06S	01A	14580/13165 232	14580/13165 232
				x			0900/0910		S06S	01A	5744/ 6524 239	5744/ 6524 239
x		x					0910/0930/0950		XPA2	01B	18206/16329/15824	17471/16149/14406
			x		x		0910/0930/0950		XPA2	01B	15859/14659/13459	17438/16338/15938
x				x			0915		S11A	03	6480 48#	6480 48#
x	x	x	x	x	x	x	0930		M14	01A	16347 617, only 10.+25. when msg repeat 14878 on 11.+26.	17458 617, only 10.+25. when msg repeat 15994 on 11.+26.
		x	x				0930		E11	03	6940 27#	6940 27#

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID, ...	Oct kHz, ID, ...
x			x				0930/0940		S06S	01A	9081/10514 698	9081/10514 698
x		x		x		x	0955		HM01	18	9155	9155
	x		x		x		0955		HM01	18	12180	12180
	x			x			1000		E11	03	9951 30#	9951 30#
	x						1000/1010		S06S	01A	6410/ 7340 427	6410/ 7340 427
		x					1000/1010		S06S	01A	13365/14505 276, check	13365/14505 276
	x	x	x	x			1015/1025/1035		F01	01A	9128/ 7546/ 5113	11129/ 9082/ 7344
x		x					1045		E11	03	7317 69#	7317 69#
	x						1100/1110		S06S	01A	6190/ 7230 265	6190/ 7230 265
		x			x		1100/1110/1110 1130/1140/1150		XPB1	01B	13521/13421/12221 11521/11021/10521	16245/15825/14925 13525/12125/11425
	x			x			1100/1120/1140		XPA2	01B	13431/12131/11431	14537/13437/10737
		x	x				1100/1120/1140		XPA2	01B	16117/14917/13517	14672/13472/12172
			x				1110/1130/1150		M12	01B	13386/12189/11491 725	13386/12189/11491 725
x	x	x	x	x	x	x	1200		V13	0	18040	18040
x							1200/1210		S06S	01A	9145/11460 149	9145/11460 149
x			x				1200/1210		S06S	01A	12415/14212 175	12415/14212 175
x					x		1200/1210/1210 1230/1240/1250		XPB1	01B	14462/13962/13462 12162/11562/10962	14462/13962/13462 12162/11562/10962
	x					x	1200/1220/1240		XPA2	01B	13914/15814/16314	14469/16169/17469
		x		x			1200/1220/1240		XPA2	01B	13484/14684/15984	13452/14452/15852
	x	x					1205		E11	03	6923 46#	6923 46#
		x		x			1210/1230/1250		XPA1	01B	12137/11137/10237	14564/13564/11464
	x		x				1230		E11	03	12530 33#	12530 33#
x							1230/1250/1310		M12	01B	14377/13461/12114 317	14377/13461/12114 317
x			x				1300		E11	03	5371 31#	5371 31#
x	x	x	x	x	x	x	1300		V13	0	18040	18040
x					x		1300/1320/1340		E07	01B	12176/11576/10276 512	12176/11576/10276 512
	x			x			1400		S11A	03	6797 42#	6797 42#
x			x				1400/1420/1440		M12	01B		20168/19468/16268 142
			x		x		1410/1430/1450		E07	01B	16228/15928/14928 594	15849/14849/13449 746
	x				x		1430		E11	03	14972 91#	14972 91#
					x		1500		M01	14	6260 463	6260 463
	x	x	x				1500/1600		S06	01A	13896/10381 387	
					x		1500/1520/1540		XPA2	01B	14373/13373/11573	13906/12106/10906

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID, ...	Oct kHz, ID, ...
			x				1530		E11	03	10330 26#	10330 26#
					x	x	1530		E11	03	4505 36#	4505 36#
	x	x	x	x	x	x	1555		HM01	18	11435	11435
x			x				1600/1620/1640		M12	01B	19546/18446/13346 543	
		x				x	1600/1620/1640		M12	01B	14927/13927/12227 992	
	x		x				1600/1620/1640		XPA2	01B	13887/13387/11587	13542/12142/11442
	x					x	1605		E11	03	5176 23#	5176 23#
	x	x	x	x	x	x	1655		HM01	18	11530	11530
		x		x			1715		E11	03	6923 97#	6923 97#
			x				1730		E11	03	7864 41#	7864 41#
x						x	1745		E11	03	13470 24#	13470 24#
x	x	x	x	x	x	x	1755		HM01	18	11635	11635
	x		x				1800		M01	14	5475 463	5475 463
					x		1800/1820/1840		M12	01B	11435/10598/ 9227 938	11435/10598/ 9227 938
				x		x	1815		E11	03	11116 92#	11116 92#
	x			x			1840/1850/1900	1	F01	01A	13467/11084/ 9052	11136/ 9074/ 7723
		x			x		1850		S11A	03	10213 28#	10213 28#
x			x				1900		E11	03	7317 64#	7317 64#
	x					x	1900/1910/1910 1930/1940/1950		XPB1	01B	12139/10939/ 9339 8139/ 6939/ 5839	9323/ 8123/ 7723 6923/ 5823/ 5123
		x					1900/1920/1940		M12	01B	8047/ 6802/ 5788 463	8047/ 6802/ 5788 463
		x		x			1900/1920/1940		M12	01B	search	11135/10235/ 9235 122
				x			1900/2000	1/3	S06	01A	9268/ 6775 319	
		x			x		1910		E11	03	4181 39#	4181 39#
				x		x	1910		E11	03	8530 61#	8530 61#
			x			x	2000		E11	03	5737 52#	5737 52#
	x		x				2000		M01	14	5020 463	5020 463
x			x				2000/2020/2040		M12	01B	11109/10309/ 9209 385	10318/ 9218/ 8118 178
				x			2000/2100	1/3	S06	01A		9268/ 6775 319
x		x		x		x	2055		HM01	18	11635	11635
	x		x		x		2055		HM01	18	16180	16180
				x	x		2100/2120/2140		M12	01B	7961/ 6861/ 5861 988	5794/ 6794/ 8094 770

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Sep kHz, ID, ...	Oct kHz, ID, ...
x			x				2110/2130/2150		M12	01B	9246/ 8146/ 6846 218	8164/ 6964/ 5764 197
x		x		x		x	2155		HM01	18	10715	10715
	x		x		x		2155		HM01	18	17480	17480
		x			x		2210/2230/2250		M12	01B	12218/11118/10218 212	10936/ 9336/ 8136 931
					x		2230/2240		F01	01A	20618/18048	20966/18954
					x		2330/2340		F01	01A	20618/18048	20966/18954

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	Jul kHz, ID, ...	Aug kHz, ID, ...	Sep kHz, ID, ...	Oct kHz, ID, ...	Remarks
		x	x				0315		E11	03	14575 25#	14575 25#	11092 25#	11092 25#	since 01/14, last log 08/22
	x		x				0445		S11A	03	9968 79#	9968 79#	search	search	since 05/22, last log 08/22
x							0450		E11	03	7469 41#	7469 41#	5371 41#	5371 41#	since 02/10, last log 08/22 2nd transmission Thu 1730z
	x		x				0500		S11A	03	15690 38#	15690 38#	14769 38#	14769 38#	since 05/14, last log 08/22
x		x					0510		S11A	03	13537 65#	13537 65#	11116 65#	11116 65#	since 08/19, last log 08/22
				x		x	0600		E11	03	9150 35#	9150 35#	8680 35#	8680 35#	since 04/15, last log 08/22
x		x					0640		E11	03	15800 94#	15800 94#	14865 94#	14865 94#	since 07/17, last log 08/22
	x		x				0645		E11	03	8091 51#	8091 51#	8423 51#	8423 51#	since 07/09, last log 08/22
x			x				0700		S11A	03	9339 47#	9339 47#	8597 47#	8597 47#	since 04/10, last log 08/22
	x			x			0700		E11	03	8680 57#	8680 57#	8180 57#	8180 57#	since 01/12, last log 08/22
					x	x	0700		E11	03	7377 49#	7377 49#	9079 49#	9079 49#	since 07/15, last log 08/22 until 02/22 0730z
x		x					0715		E11	03	18030 75#	18030 75#	15632 75#	15632 75#	since 06/21, last log 08/22
	x			x			0715		E11	03	10429 63#	10429 63#	9963 63#	9963 63#	since 02/11, last log 08/22
x			x				0745		E11	03	9610 26#	9610 26#	10213 26#	10213 26#	since 03/14, last log 08/22 2nd transmission Thu 1530z
	x		x				0745		E11	03	14940 22#	14940 22#	14865 22#	14865 22#	since 01/20, last log 08/22
		x		x			0745		E11	03	15720 34#	15720 34#	17410 34#	17410 34#	since 06/17, last log 08/22
	x	x					0820		E11	03	17378 13#	17378 13#	19184 13#	19184 13#	since 12/18, last log 08/22
			x	x			0820		E11	03	4909 43#	4909 43#	5941 43#	5941 43#	since 10/09, last log 08/22
x				x			0830		E11	03	15720 18#	15720 18#	15905 18#	15905 18#	since 07/15, last log 08/22 until 02/22 0730z
					x	x	0830		S11A	03	5149 37#	5149 37#	6433 37#, check	6433 37#	since 02/14, last log 08/22
x		x					0845		E11	03	12815 71#	12815 71#	12202 71#	12202 71#	since 09/10, last log 08/22
	x		x				0845		E11	03	14972 15#	14972 15#	13908 15#	13908 15#	since 07/17, last log 08/22
x		x					0900		E11	03	9052 53#	9052 53#	9968 53#	9968 53#	since 10/05, last log 08/22
x				x			0915		S11A	03	6814 48#	6814 48#	6480 48#	6480 48#	since 04/19, last log 08/22
		x	x				0930		E11	03	6923 27#	6923 27#	6940 27#	6940 27#	since 02/14, last log 08/22
	x			x			1000		E11	03	12153 30#	12153 30#	9951 30#	9951 30#	since 11/16, last log 08/22
x		x					1045		E11	03	8545 69#	8545 69#	7317 69#	7317 69#	since 03/18, last log 08/22
	x	x					1205		E11	03	6304 46#	6304 46#	6923 46#	6923 46#	since 03/10, last log 08/22
	x		x				1230		E11	03			12530 33#	12530 33#	since 10/11, last log 04/22 Nov-Feb & May-Aug at 1645z
x			x				1300		E11	03	5737 31#	5737 31#	5371 31#	5371 31#	since 07/14, last log 08/22
	x			x			1400		S11A	03	7772 42#	7772 42#	6797 42#	6797 42#	since 02/10, last log 08/22
	x				x		1430		E11	03	12984 91#	12984 91#	14972 91#	14972 91#	since 10/15, last log 08/22
			x				1530		E11	03	10356 26#	10356 26#	10330 26#	10330 26#	since 06/14, last log 08/22 2nd transmission Mon 0745z
					x	x	1530		E11	03	5082 36#	5082 36#	4505 36#	4505 36#	since 03/14, last log 08/22
	x					x	1605		E11	03	5231 23#	5231 23#	5176 23#	5176 23#	since 11/15, last log 08/22
	x		x				1645		E11	03	14575 33#	14575 33#			since 10/11, last log 08/22 Mar/Apr/Sep/Oct at 1230z
		x		x			1715		E11	03	7863 97#	7863 97#	6923 97#	6923 97#	since 02/15, last log 08/22
			x				1730		E11	03	8088 41#	8088 41#	7864 41#	7864 41#	since 03/10, last log 08/22 2nd transmission Mon 0450z
x						x	1745		E11	03	14410 24#	14410 24#	13470 24#	13470 24#	since 04/18, last log 08/22
				x		x	1815		E11	03	12229 92#	12229 92#	11116 92#	11116 92#	since 05/16, last log 08/22
		x			x		1850		S11A	03	12457 28#	12457 28#	10213 28#	10213 28#	since 06/17, last log 08/22
x			x				1900		E11	03	7600 64#	7600 64#	7317 64#	7317 64#	since 05/16, last log 08/22
		x			x		1910		E11	03	4783 39#	4783 39#	4181 39#	4181 39#	since 02/14, last log 08/22
				x		x	1910		E11	03	9610 61#	9610 61#	8530 61#	8530 61#	since 04/17, last log 08/22
			x			x	2000		E11	03	5409 52#	5409 52#	5737 52#	5737 52#	since 05/15, last log 08/22

XPA1 Sched c and XPA2[Sched m & p] Russian Intelligence and/or Diplomatic Multitone Systems
[Radiogramma] Transmission Schedules.

Zulu >	XPA1 Sched c			XPA2 Sched m			XPA2 Sched p		
Month v	Tuesday/Thursday H+10 H+30 H+50 0710 / 0810z			Sunday/Tuesday H 00 H+20 H+40 1200/2100			Monday/Wednesday H 00 H+20 H+40 0700 / 0800z		
Jan	12157	13462	14374	10921	12221	13521	11493	13393	13993
Feb	13397	14413	15972	11163	13363	14563	13387	13887	14787
Mar	12132	13453	14576	13384	13984	14984	13931	14831	16131
Apr	10428	11431	13441	14442	15842	16342	11409	12209	13409
May	11169	12179	13431	13376	11576	10776	12148	13448	13948
June	11421	12151	13972	13427	12227	10827	12148	13448	13948
July	10446	11474	12175	13394	12194	10794	12148	13448	13948
Aug	10234	11511	12117	12159	11559	10559	12152	13552	13952
Sept	10862	11571	12216	13914	15814	16314	12152	13552	13952
Oct	12167	13437	14972	14469	16169	17469	13372	14672	15872
Nov	13978	14859	15871	14783	13883	12183	11529	13429	13929
Dec	11531	12137	13932	10807	12207	13507	11493	13393	13993

XPA1 and XPA2 Wednesday/Friday schedules

Zulu >	XPA1 Wed/Fri Schedule			XPA2 Wed/Fri Schedule		
Month v	H+10 1210 / 1310z	H+30	H+50	H 00 1200/2100z	H+20	H+40
Jan	14852	13952	11552	10726	11426	12226
Feb	14374	13374	11474	11575	13375	13975
Mar	14451	13451	12151	12139	13539	14639
Apr	13368	12168	11168	14377	14977	15977
May	13419	12219	11419	12124	11124	10624
June	13545	12145	11145	13462	12162	11562
July	13368	12168	11168	12124	11124	10624
Aug	13491	12191	10691	13919	14719	16219
Sept	12137	11137	10237	13484	14684	15984
Oct	14564	13564	11464	13452	14452	15852
Nov	13875	13375	10875	10968	12168	13368
Dec	13465	12165	10265	9389	10289	11589

SPECIAL MATTERS

Thanks to all our contributors:

Ary, BR, DanAr., E, HH, HJH, JkC, Jochen, KW, Malc, MaleAnon, PoSW, PLdn, RNGB, tING, XAH
Apologies to anyone missed.



MESSAGES:

E: Thanks for valid input. The noise you refer to is just about everywhere. Conditions are generally bad with the odd lift, enjoy what's left.

RELEVANT WEBSITES

ENIGMA 2000 Website:

<http://www.enigma2000.org.uk>

Time zone information:

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

Encyclopedia of Espionage, Intelligence, and Security

<http://www.espionageinfo.com/>

2022

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

S	M	T	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

S	M	T	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
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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