CLUB'S OFFICERS

President	Terry Adams	G4CHD
Chairman	Mike Wogden	G4KXQ
Vice Chairman	David Boyes	2E0KVJ
Secretary	John Lovell	G3JKL secretary@adarc.co.uk
Treasurer	Alan Fisher	2E0EUZ

Committee	Stephanie Ebbans	M1CVJ
	Ben Louder	2E0FTZ
	David Harris	2E0IXK
QSL Manager	John Lovell	G3JKL
Web Master	John Lovell	G3JKL
Exam Secretary	John Lovell	G3JKL
Editor	Mike Wogden	G4KXQ Mikewogden@gmail.com

EDITORIAL and CHAIRMAN'S ADDRESS

This month's meeting is the clubs Annual General Meeting and election of Club Officials. As the Chairman I feel perhaps we have lost our way a little during 2024. I had some personal family distractions during the year which somewhat diverted me from leading the club. This was combined with a lack of committee meetings during the year for which I can only apologies.

I would like to remind all club members that the club needs volunteers to continue to run and provide an interesting venue where we can meet throughout the year to share our enthusiasm for the hobby.

The club must have a minimum of Chairman, Treasurer and Secretary to exist.

Could I make an appeal for more members to come forward to share their aspects of the hobby with the wider membership by giving a short presentation on a club night. The fascinating thing about the Amateur Radio hobby is that it has many facets to it. Often during club meetings, I talk to members who explain in great depth what aspects they enjoy about the hobby and this can be many things from CW operation to Medium Wave DXing. If anyone would like to give a short presentation on club night to share this knowledge it would be most welcome. I'm happy to aid in preparing slides and driving the IT side if necessary. There must be many new rigs or radio gadgets in members hands that could be the subject of a short club demonstration similar to my recent presentation on the SDR switch box. This talk proved that a subject does not need to be long or complex for it to be entertaining. Terry and myself don't mind giving talks but it gets increasingly difficult to come up with fresh ideas. I would appeal to members to browse the club's events and activities pages in Radcom. If they see a suitable talk or presentation included in another club's calendar that they feel would be interesting to the membership then please bring it to the attention of John JKL or myself and we will endeavor to contact the author to give a talk remotely.

The February meeting was a club natter night. My thanks to Chris G0FJY who took up my challenge to 'Show and Tell'. Chris demonstrated his 'all-in-one' Amateur Television box with the BATC groups Portsdown and Landsdown ATV Transceivers based around a Raspberry Pi SBC, 7 inch Touchscreen and the ADALM Pluto Software Defined Radio. Thanks Chris for sharing, I certainly found it interesting.

As I mentioned at the last meeting there is a recommendation from the Club Officials to remove the hold on subscriptions and a proposal to increase the club subscription to £15 per year. The existing rate has been at £13 for as long as I have been a member and I feel that despite having money in the bank from generous club donations, normally from silent key sales, we should cover the club's total annual expenditure from the members subscription. These costs include the clubhouse rent, club equipment insurance and the RSGB membership affiliation. This increase will be presented to the members at the AGM to vote on. As most people like to pay their subs before or during the meeting, please could I request that members wait until we have completed the club business before they pay their subs.

Advanced notice: Club meetings are normally held on the third Monday of the Month. In April 2025 the third Monday also falls on Easter Monday (21st April) . Because of this it is proposed to postpone the meeting by one week and so therefore the April 2025 meeting will be held on Monday 28 April 2025.

For the April meeting I've prepared another mystery talk entitled '£380 for a Geochron? No thanks, I'll roll my own.' More will become clear on the night.

Enjoy the read.

73 Mike (G4KXQ)

Contest Calendar March/April

The contest highlight of this month is the CQ WW WPX Contest. Lots of obscure prefix to work

Weekend March 22/23
- Russian YL/OM Contest
- Africa All Mode International DX Contest
- North American SSB Sprint Contest
- UBA Spring Contest, 6m

Weekend March 28-30
- Sasquatch Stomp
- Feld Hell Sprint
- CQ WW WPX Contest, SSB

Weekend Apr 5-6
- YBDXPI SSB Contest
- PODXS 070 New Member Jamboree
- EA RTTY Contest
- SP DX Contest
- PODXS 070 New Member Jamboree
- YBDXPI SSB Contest
- EA RTTY Contest
- SP DX Contest

Weekend April 12-13
- JIDX CW Contest
- DIG QSO Party, CW
- IG-RY World Wide RTTY Contest
- SKCC Weekend Sprintathon
- Yuri Gagarin International DX Contest
- OK/OM DX Contest, SSB
- Africa FT4 DX Contest

Weekend April 18-20
- World Wide Holyland Contest
- ES Open HF Championship
- Worked All Provinces of China DX Contest
- Dutch PACCdigi Contest
- YU DX Contest
- QRP to the Field
- CQMM DX Contest
- Nebraska QSO Party
- Michigan QSO Party
- EA-QRP CW Contest
- Feld Hell Sprint

LOCAL REPEATERS/GATEWAYS

Frequencies are those transmitted and received by the Repeater

GB3DN VHF FM/C4FM Repeater - Stibb Cross
Tone 77Hz (for analogue FM)
TX 145.6375 RX 145.0375
Keeper Tony G1BHM
Default Digital Connection : Wires-X Southern Fusion http://www.g0rql.co.uk/gb3dn.htm

GB3ND UHF DMR Repeater - Holsworthy Beacon
TX 439.7375 RX 430.7375 colour code 1 Slot 1 local RF Slot 2 SW
Cluster Keeper Tony G1BHM

GB7FB UHF DMR Repeater - Bideford TX 439.475 RX 430.4750
Colour code 5 Slot 1 Local RF/DoD Slot 2 SW Cluster Keeper Drew M0MFS

GB3LZ VHF FM/C4FM Repeater - Winkleigh
Tone 77Hz (for analogue FM)
TX 145.6625 RX 145.0625
Digital Connection : Wires-X SOUTHERN ENGLAND
Keeper Simon G4MQQ

GB7LZ UHF DMR Repeater - Winkleigh
TX 430.9125 RX 438.5125 Colour code 1
Slot 1 Talkgroup 9 local and direct dial
Slot 2 South West Cluster
Keeper G4MQQ

MB6DT VHF Fusion Gateway - Barnstaple
Frequency 144.8125 MHz.
Gateway Keeper Darren (2E0LVC) Operational

GB7TG - UHF DMR Repeater - Wembworthy
TX 430.9750 RX 438.5750 Colour Code 7
Default Connection : Slot 1 Local/DoD Slot 2 SW
Cluster Keeper G7SOJ

GB3NX VHF FM AllStar Repeater- Holsworthy Beacon
Tone 77Hz
Repeater TX 145.5875 RX 144.9875
Connection SW AllStar Network (SWAN)
Keeper G1BHM

GB3BU - UHF DMR Repeater - Bude
TX 430.9625 RX 438.5625 Colour Code 1
Default Connection : Slot 1 Local/DoD Slot 2 SW
Cluster Keeper G1BHM

CLUB MEETINGS

Meetings are held on the third Monday of the month at the **Appledore Football Social Club** starting at 7.30pm for 8.00pm. Visitors always welcome. For further information, please contact the Secretary, John.
April 28th - £380 for a Geochron? No thanks, I'll roll my own

LOCAL NETS

Weekday Zepp FM Net:	Mon/Tues/Thurs/Fri : 145.450MHz - 4pm - 5pm Wed via GB3DN - 4pm - 5pm Net Control : Len (M0SXY)
2m Elevenses FM Net:	Mon/Wed/Fri : 11 - 12.00 noon via GB3DN Net Control ; Mike (G3PGA)
Friday Night 2m Net:	Friday : 145.450 FM, 8 -9pm
Sunday Top Band Net:	Sunday 1.860 MHz 9.30 - 10.15am (LSB - 32W pep max)
2m SSB Nets:	Wed: 8 - 9pm 144.260MHz USB SSB (Vertical polarised) Sun: approx 10.30am (follows Top Band Net) 144.260MHz USB SSB (Vertical polarised)
Sunday FM Net:	Sunday: 11 to noon via GB3DN Net Control : Chris (G0FJY)

Note :- **FM Nets which use GB3DN as shown above will continue despite the recent changes.**
GB3DN is disconnected from the Wires-X/ Southern Fusion Room just before the listed start and end of each FM Net

Southern England *(formerly Southern Fusion)* 1st Quarter 2025 enhancements

Commencing 08:00 Friday 14th February, the present Southern Fusion room **41893** will be switched off, and a new room called **'Southern England'** (room number **88688**) will take its place. Hereon, it will be referred to as the 'Southern England' room. The good news is that the same familiar voices will still be around, with the possibility of some extra bells and whistles in the months to follow.

One of the reasons for this change is to centralize the **Wire-X** room and **YSF** to the same location, drastically improving network reliability. Previously, the network was geographically fragmented, sometimes causing outages.

IMPACT/ACTIONS:

END USERS - NONE!

If your local repeater or gateway keeper makes a small change, you shouldn't notice any difference.

REPEATER/GATEWAY KEEPERS & PDN USERS

To avoid 'dead air' and stay with the same user base on **Friday 14th morning** (or anytime from now), you need to change your destination room to **88688**.

HOTSPOT & PEANUT USERS

No action required! Business as usual—still **YSF 41893** and **FCS 235-89**. The only 'cosmetic' change is that the room will now be verbally referred to as the **'Southern England' Fusion room**.

ENHANCEMENTS

- You will now also be able to chat with friends using **DMR** and **DSTAR** radios.
- **DMR users** can connect to **TG-2359** if they set their **DMR Master** to **FREESTAR IPSC2** or **System X**.
- **DSTAR users** can connect via **reflector XLX922D**.
- **CQ WORLDWIDE users** can connect via **DG-ID 89**.
- The existing user group Facebook page will be renamed **'SOUTHERN ENGLAND'** (formerly **Southern Fusion Users**).

We're looking forward to chatting with even more of you on air, so don't be shy—**pick up that mic and get gassing!**

Join the Facebook group to keep up with updates.

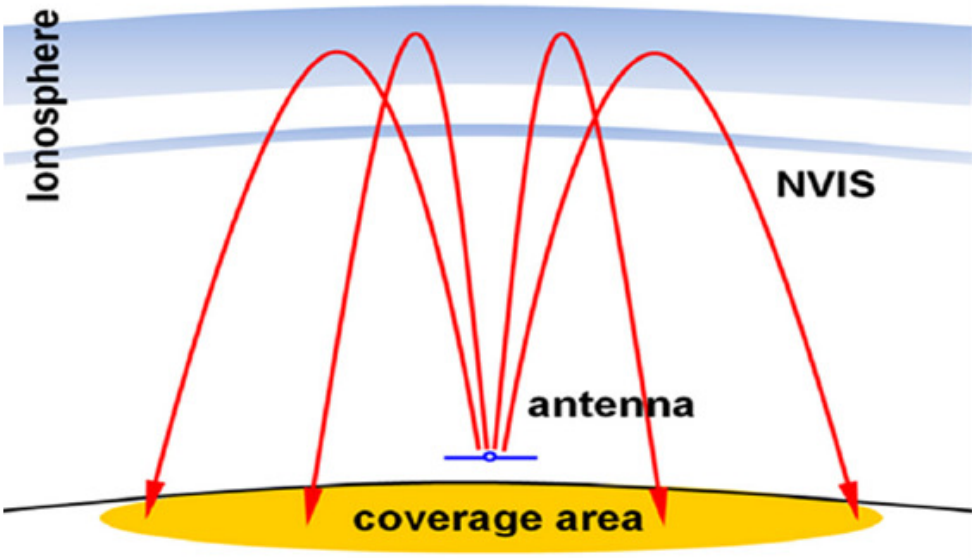
For any queries, please contact **Phil G6DLJ, Matt G7HMV, or Alan G8IPG** (email addresses available on **QRZ.com**).

NVIS AND AMATEUR RADIO

Near Vertical Incidence Skywave (NVIS) antennas are an interesting yet often overlooked asset in a ham operator's toolkit. They're designed to boost communication over short to medium distances, typically within 0-400 miles. For regional communication, getting the hang of NVIS can really elevate your game.

What is NVIS?

NVIS works by sending signals almost straight up into the ionosphere, which then bounce back down, covering an area starting close to you and spreading outward. This is handy for getting past obstacles like mountains or buildings that might block ground waves.



Frequency Considerations

NVIS works best on lower HF frequencies, typically between 2-10 MHz. The most commonly used amateur bands for NVIS are 80 meters (3.5-4.0 MHz) and 40 meters (7.0-7.3 MHz), although during periods of low solar activity, even 160 meters can be effective for NVIS communication.

NVIS Antenna Designs

1. Low Dipoles: A simple dipole mounted at 1/4 wavelength or lower above the ground can function as an effective NVIS antenna. For 40 meters, this means a height of about 33 feet or less.

2. Inverted V: Similar to a dipole, but with the ends sloping downwards. This configuration can be easier to set up with a single support.

3. Loop Antennas: Horizontal loops mounted low to the ground can provide excellent NVIS performance.

4. Field-Expedient Antennas: In portable or emergency situations, even a simple wire laid on the ground or suspended just a few feet high can work for NVIS.

Advantages of NVIS

1. Consistent Coverage: NVIS provides reliable communication within its coverage area, regardless of terrain.

2. Low Power Effectiveness: Due to the short skip distances involved, NVIS can be very effective even with low power transmitters.

3. Reduced Interference: NVIS signals typically don't propagate far beyond the intended coverage area, reducing long-distance interference.

4. Ideal for Emergency Communications: NVIS is excellent for regional emergency networks where reliable communication is critical.

Implementing NVIS in Your Station

To dive into NVIS, try lowering your existing wire antennas. For instance, if you've got a 40m dipole up at 60 feet, put up another at around 20 feet and compare the two for regional contacts.

For portable ops, a simple wire dipole or inverted V at a low height, like on a mast or even in trees, can be set up quickly for solid regional communication.

In summary...

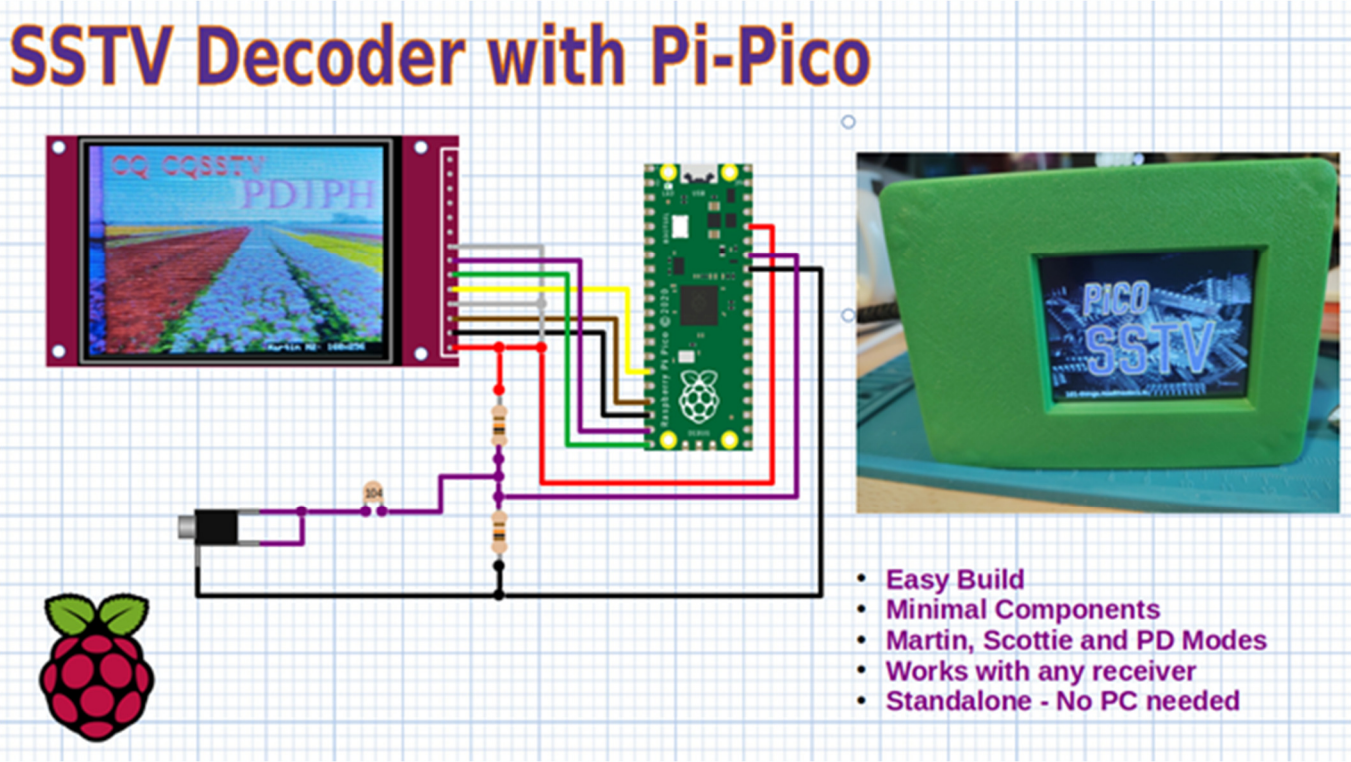
NVIS antennas are a great choice for amateur radio operators wanting to boost their regional comms. By grasping the basics and trying out different setups, you can greatly enhance your local area connections, whether for casual chats, nets, or emergency use.

From the Workbench

I'm always playing with microcontrollers in one form or another. These could be Microchip PICS, ATMEL based Arduino boards or recently ESP32 boards with Wifi and Bluetooth. I also have a few Raspberry PI's scattered around the shack normally dedicated to specific tasks. Two are used for running Pi-Star providing DMR and YSF hotspots whilst two others are used as remote severs for my 3-D printer with one of these units doubling up as my home print server for my rather ancient laser printer.

When the Raspberry Pi foundation introduced the PI Pico microcontroller a few years ago I quickly bought one. I did struggle with it at the time as the only language available was micropython. It did get a bit more interesting when an add-on for the Arduino Development System was introduced but the board eventually was consigned to the shack drawer.

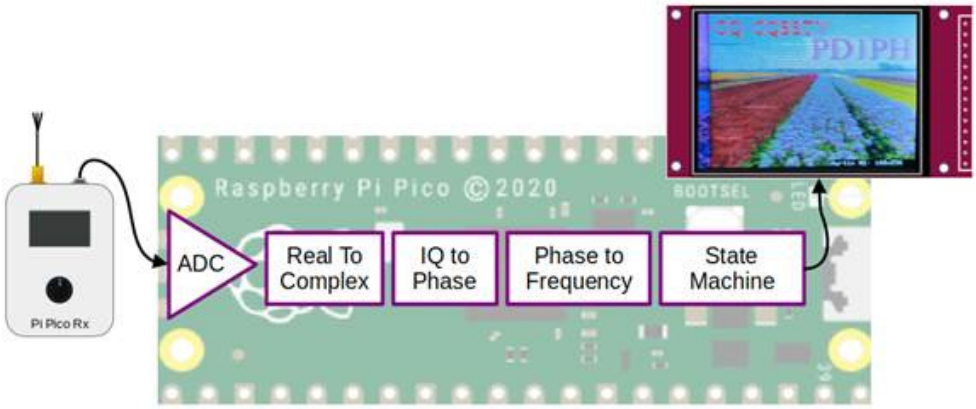
Recently a project to use the Pi Pico to produce a stand-along SSTV decoder from a man called Jon Dawson caught my attention.



Using the Raspberry Pi Pico microcontroller and an affordable TFT display, you can build a compact SSTV decoder that doesn't require a PC. With just a few resistors and capacitors, the decoder interfaces directly with the headphone output of any radio, making it highly versatile and easy to set up.

I found all the required components in my junk box but they would cost less than £10 if you had to buy them from the usual on-line vendors. Unfortunately, it doesn't decode the Robot 36 mode that Mike PGA uses for his weekly SSTV net on the Repeater but it is able to decode the common used modes found on HF , typically 14.230 MHz. It will also decode the occasional SSTV pictures that are transmitted from the ISS.

The Pi pico is a very powerful microcontroller and the new Pi Pico2 has even more processing capability.



There is not much to the SSTV decoder. Audio from a single-sideband receiver goes through a biasing network and into the Pico's A/D input. The decoder can handle both Martin, Scottie and PD

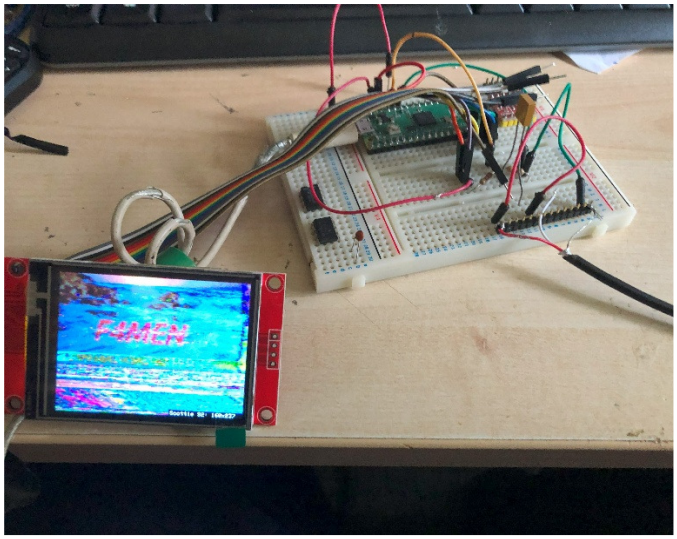
SSTV protocols, with results displayed on a TFT LCD screen. The magic is in the software, of course, and the website provides a good explanation of the algorithms used, as well as some of the challenges faced, such as reliably detecting which protocol is being used. The software also implemented correction for "slant," which occurs when the transmitter sample rate drifts relative to the receiver. Fixing that requires measuring the time it took to transmit each line and adjusting the timing of the decoder to match. The results are dramatic, and it clears up one of the main sources of SSTV artifacts.

The software is available to download from the internet and is programmed using the Arduino Development environment. It does work really well

Full details can be found at 101 Things

https://101-things.readthedocs.io/en/latest/index.html

I will bring the unit to the next club 'show and tell' evening once I've transferred it onto Veroboard and housed it in a 3-D printed case.



DX NEWS

Quite a lot of DX activations this month probably because of the CQ WW WPX contest t being held the weekend of 28-30 March.

Date Start/Finish	Location	Callsign	
16 -30 Mar 25	St Vincent	J87PE	By 8P6PE; 20-10m; holiday style operation; POTA activation
17 - 31 Mar 25	Grenada	J38XB	By VE2XB fm IOTA NA-024; 160-10m; SSB, some CW
18 Mar – 01 Apr 25	Micronesia	V6WG	By WE9G fm Kosrae I (IOTA OC-059); 80-6m, perhaps 160m; mainly FT8 FT4, some SSB CW QSL via WE9G (B/d)
18 Mar – 08 Apr 25	Tanzania	5H3MB	By IK2GZU; 80-10m; SSB CW + digital; QSL via 5H3MB (B/d)
20 - 26 Mar 25	San Andres & Providencial	HK0	By HJ4ADR as HJ4ADR/0; 40 10m; SSB FT8; 20w
24 Mar – 05 Apr 25	Rodrigues I	3B9DJ	By OK6DJ OK1CRM OK2ZA; 160-10m; CW SSB FT8; QSL via Club Log OQRS (preferred) or OK6DJ
24 -31 Mar 25	Cyprus SBA	ZC4MK	By G0KOM; QRV for CQ WPX SSB
24 Mar - 04 Apr 25	St Barthelemy	TO1P	By SP9FIH; 40 17 10m; SSB FT8 RTTY

Date Start/Finish	Location	Callsign	
26 -31 Mar 25	St Lucia	J62K	By J68HZ J69DS KN2P DL3ON WA4PGM W0CN; QRV for CQ WPX SSB (M/2); QSL via K9HZ
26 Mar – 05 Apr 25	Sint Maarten	PJ7EE	By KC9EE; focus on 12 10 6m for Asia; QSL via Club Log OQRS or KC9EE direct
29 Mar - 19 Apr 25	Bahamas	C6APS	By WA4PAW fm Great Abaco I (IOTA NA-080); 40-10m; FT8 CW SSB; QSL via Club Log OQRS
30 Mar - 06 Apr 25	Honduras	HR9	By K6VHF as K6VHF/HR9 fm Roatan I; 80-6m; SSB CW RTTY FT8; 100w; QSL via Club Log OQRS or K6VHF (B/d)
01 – 07 Apr 15	Surinam	PZ5IP	By PY8WW PZ5JW DL8TG fm Papegaaien I (IOTA SA-092); 40-10m; CW SSB + digital
02 – 10 Apr 25	Ogasawara	JD1	y Toshiba Fuchu Amateur Radio Club ops as JA1YVT/JD1 fm Chichijima I (Apr 2-7) and Hahajima I (Apr 7-10); 80-2m; CW SSB FT
03 -10 Apr 25	Maldives	8Q7EF	By IW2NEF fm Filitheyo I; 40-6m; SSB FT8; QSL via IK2DUW direct or HE9ERA Buro
09 – 15 Apr 25	French Polynesia	TX7XG	y JA1XGI fm Fakarava Atoll (IOTA OC-066, BH73ev); 40-6m
10 -27 Apr 25	Br Virgin Is	VP2VI	By DA1DX DK9IP DM6EE DL8LAS; HF + 6m
16 -23 Apr 25	Palau	T88UW	By JH7IPR fm IOTA OC-009; HF; FT8, some CW SSB; QSL via Club Log OQRS or JH7IPR (B/d)
17 – 27 Apr 25	Bonaire	PJ4CB	By WA7RAR; 20-10m; CW SSB; holiday style operation; QSL via WA7RAR direc
18 – 20 Apr 25	East Kiribati	T32AZ	By KH6QJ; 40 20 15 10m
18 – 26 Apr 25	Galapagos	HD8G	By PY2PT PY2WAS PY5CC YT1AD + team fm IOTA SA-004 (EI49tf); 160-6m, incl 60m; SSB CW FT4 FT8 RTTY; QSL via M0URX OQRS
19 Apr – 02 May 25	Gambia	C5	By F5RAV as C5LT and YU5R as C5R fm nr Kololi; HF; CW SSB FT8
25 – 28 Apr 25	Thailand	E28AM/p	By E20EHQ E21LLR E25GGT E25KFR E25VVE HS1JZT HS5NMF IV3GMZ fm Chang I (IOTA AS-125); 40-10m; CW SSB FT8; holiday style operation
17 – 07 May 25	Austral Is	TX9A	By 9A2NA 9A3MR 9A9R DK8ZZ fm IOTA OC-152; HF