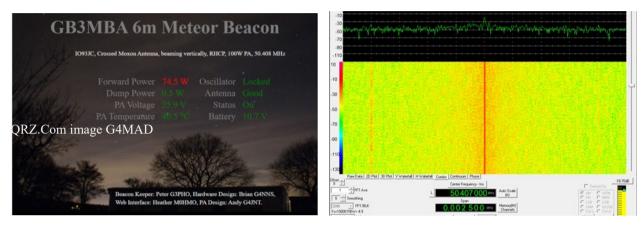
HWZ95 BZZME TELFORI	News Letter		
www.TDARS.org.uk FOUNDED 1969 www.TelfordHamfest.co.uk			
Issue 317	Programme May—July. 2024		
May 1	Committee / Ham <mark>fe</mark> st meeting 7.30pm (Webex) + 2m rag <mark>ch</mark> ew 7:30pm		
May 8	John M0XJA – Trip to Antarctica & Foxhunt Instructions		
May 15	1st 2024 Foxhunt Martin 2E0TRO		
May 22	Mobile towers – erection and safety G0UFE		
May 29	Marconi feedback / 6mtr / NFD Prep		
June 5	Committee / Hamfest meeting 7.30pm (Webex) + 2m ragchew 7:30pm		
June 12	6m Trophy Weekend Prep / Paul G8AQA		
June 15/16			
June 19	Microwave Contesting Heather / Paul		
June 26			
July 3	VHF NFD Prep Mick 2E1FQO		
July 6 - 7	VHF NFD Mick 2E1FQ0		
July 10	Committee / Hamf <mark>est meeting</mark> 7.30pm (Webex) + 2m ragchew 7:30pm		
July 17	BBQ Paul M0PLA		
July 24	2nd Foxhunt Martin 2E0TRO		
July 31	10 Minute Topics - Practical operations?		
VILLAGE HALL	, Malthouse Bank, Little Wenlock, Telford, Shropshire. TF6 5BG		



Heather M0HMO wins RSGB major competition

The RSGB announced the following RSGB announcement of April 13, 2024: Heather Nickalls, M0HMO is the winner of this year's Construction Competition Software category for her project "Meteor Beacon Network Software" - *congratulations*

TDARS also congratulates Heather for this success, well deserved.



~+~+~+~+~+~+~+~+~+~+~

New Committee elected for 2024 to 2025

TDARS has been very active re-organising and still discovering the extent of work Martyn G3UKV SK actually put into the club. Hamfest is main concern and this year will certainly be 'all hands to the pump' both before and on the day. More news on this as the new committee (see below) gets works on it.

John M0JZH the new Vice-Chair has taken on the traders link responsibility and hit the floor running, he recently did a first post to make contact with current traders and also visited the Blackpool rally to speak face to face with traders to let them know the Telford Hamfest continues!

We also thank Paul M0PNN for continuing as QSL manager.

	New Committee 2024-25	
Chair	Simon Bird GOUFE	telfordslivewire@hotmail.co.uk 01952 401018
Vice-Chair	John Humphreys M0JZH	m0jzh@yahoo.co.uk 07824 737716
Secretary	Graham Cowan G7LMF	secretary@tdars.org.uk
Treasurer	Paul Athersmith M0PLA	Paul.athersmith@gmail.com
Curator	Don Nicholls M0TBQ	donsnicholls@outlook.com
Training	John Alexander M0XJA	training@tdars.org.uk
Newsletter / Web / PR	Dave Harris G0CER	davekh@gmail.com
Village Hall link	Martin 2E0TRO	
Tony M0TZM	Paul G8AQA	Brian G6UDX Mark Savage M0XIC





Groups.io



tdars@groups.io

Qtc: News & Information



<u>TDARS MEETINGS</u> Wednesday evenings at Little Wenlock Village Hall, some online via Webex where appropriate

A current membership card may be required to borrow TDARS equipment. Please return p<u>romptly</u> If you need Webex for upcoming meeting, ask.

Annual Awards

The AGM saw annual awards to members for work to the club and amateur radio over the last year, Chair Simon G0UFE Presented them on behalf of TDARS.



NOTE: Under a fiver to Tony M0TZM [NO PHOTO]

Shropshire RAYNET talk to TDARS by Mark Jones M1DQI

Over the years Shropshire RAYNET have been involved in major and smaller emergencies and local event communications after being noticed by government after a flooding disaster in 1948 has been a constant demonstration that volunteers can organise a professional quality support system based around using their own radios, equipment and knowledge. Their flexibility where events outstrip capabilities of a small local group is having countrywide members and supporters who go out of their areas to support local operations. Examples of long-time supporters are our Martyn G3UKV sk and Dave Hall G8VZT and others.

Peter M1FGN writes the following

"TDARS: Spirit of Martyn".

On 23rd March 2024, a quiz evening took place in the village hall, Kevin G8UPF had an idea to call the TDARS team "TDARS: Spirit of Martyn" [G3UKV sk] who was also on the team more than once before the pandemic.

The winning team came in with 93 points out of 12 teams entered with the TDARS team a "creditable last" with 61 points. TDARS triumphed with 9/10 on the science round and 10/10 on the arts round multiplied up to 20 points by playing the Joker, but a white wash on the music round which pushed the TDARS team into last place.

STEM WEEKEND AT COSFORD by John Alexander M0XJA

John reports on the successful weekend 23/24th March

We had a full team all with jobs ready for the day, the location looked good, albeit a hf station next to a HUGE metal building didn't seem promising. The organisers were happy we ticked all the required boxes for being in a public place on RAF land. The EMF spreadsheet is NOTHING compared to the required data for each radio and aerial were had to send in before the event. We also had a GB4 callsign to help gain contacts.

We had 3 locations, outdoors by the reception building for the military landrover with comms display, also between building for the HF / VHF amateur radio station GB4RMM and a experience display of digital TV stations aimed to inspire the young and their parents with a talk by John G7ACD and RSGB representation.



First day—Saturday—showers and shine, what a building!

The STEM table inside we had David Holman demonstrating a pair of Amateur Digital TV stations transmitting between each other the delay between the stations delighted the



children who could both act in front of the camera then run over to see themselves .as it was transmitted to a receiving station display it. It was hilarious and the children loved it.

Also on the table We also had two laptops running various SDR programs and decoding ADSB airplane transponders and decoding commercial and Ham radio traffic. With these we were able to demonstrate to both kids their families and even former Hams inspired to restart their hobby!

In the morning we had Ben Lloyd the youth

representative for the RSGB give a talk on radio and outdoor activities such as SOTA

Sunday better weather and more fun

On Sunday the weather was much better again outside we had TDARS members operating from their vans and cars including Regional Representative Mark Savage M0XIC, David Harris G0CER and Chairman Simon G0UFE and John Humphies M0JZH who was demonstrating satellite reception

We also had the popular military Land Rover. Inside the above building we had Leigh Preece M5GWH from the RSGB and others from the Stafford club came over to do morse activities with the kids and we again had the SDR demo along with practical demonstrations led by John G7ACD and a talk on amateur weather balloon launches by M0HMO.

Thanks to every one who volunteered time and helped the event to be a success. It's a great event to inspire people who are already interested in technology to maybe choose amateur radio as a hobby. John M0XJA

Photos from the Cosford STEM weekend









145 Alive Activity Event

John M0XJA and Scott M7WUK took part in 145 Alive activity—keeping 2m FM in use. "We had a great time on Sunday 31st March on the Long Mynd, I mainly did 2M and Scott M7WUK on HF. Special mention to G0XBU at Jodrell Bank, M7BUE@ Castle Ring and 2E0LRV/ M7YZY." Look out on Facebook for the next one!



- •Top Stuart G0TBI military radio demo.
- Left Mark M0XIC running GB4RMM on 2m & 40m Mick 2E1FQO's van, which was very comfortable for radio operation.

• Other photos Dave Holman M0YDH Portsdown 4 DATV demonstration with Ben Lloyd GW4BML taking to visitors in the background.



Thanks for Newsletter input this edition:

John M0XJA, Mike G3JKX, Shabaz M7YSZ, Peter M1FGM, Paul M0PNN, John M0JZH

Next edition August to September 2024—Summer edition Please contribute to the newsletter - tech, experiences in radio, history, my shack or WHY?

New UKuG Trophy—the Brown Clee DX Trophy

The UK Microwave Users Group (UKuG) have a new trophy to be present annually, it is funded by Dave Hall G8VZT a long time TDARS club member. It was bought by a sale of Dave's unused equipment (organised by Paul MOPNN) with intention of recognising successful microwave DXing activities during a year. The idea began with the passing of Jim G8UGL past chair of TDARS but with the passing of Martyn G3UKV it focussed the mind to get this done.

The trophy is part in-memory of Jim G8UGL sk and Martyn G3UKV sk, but also fellow skilled operator Dave G8VZT who thankfully is still with us and kicking his first new home into shape right now! All of these members have had great successes and even records that still stand. The trophy's name comes from the location that has been used over the many years for the likes of UKAC contests and other microwave tests and contest.



It is presented in a wooden case to be treasured for the year it's held. An additional present to the winner, Dave ordered 10 crystal glass miniature medals as a keepsakes after the trophy returns to UKuG.

This is a grand gesture Dave G8VZT and will be very popular amongst microwave operators.

TDARS International Marconi Day 2024 Tywyn 26/28 April 2024

On Friday members drove up and set up on the usual field thankfully drained enough for operation near Marconi Bungalows

Friday operations as GC3ZME appropriate call for the club out on maneuverers in Wales and Saturday the nearest day to Marconi's birthday the club used the GB8MD call as used many times before.

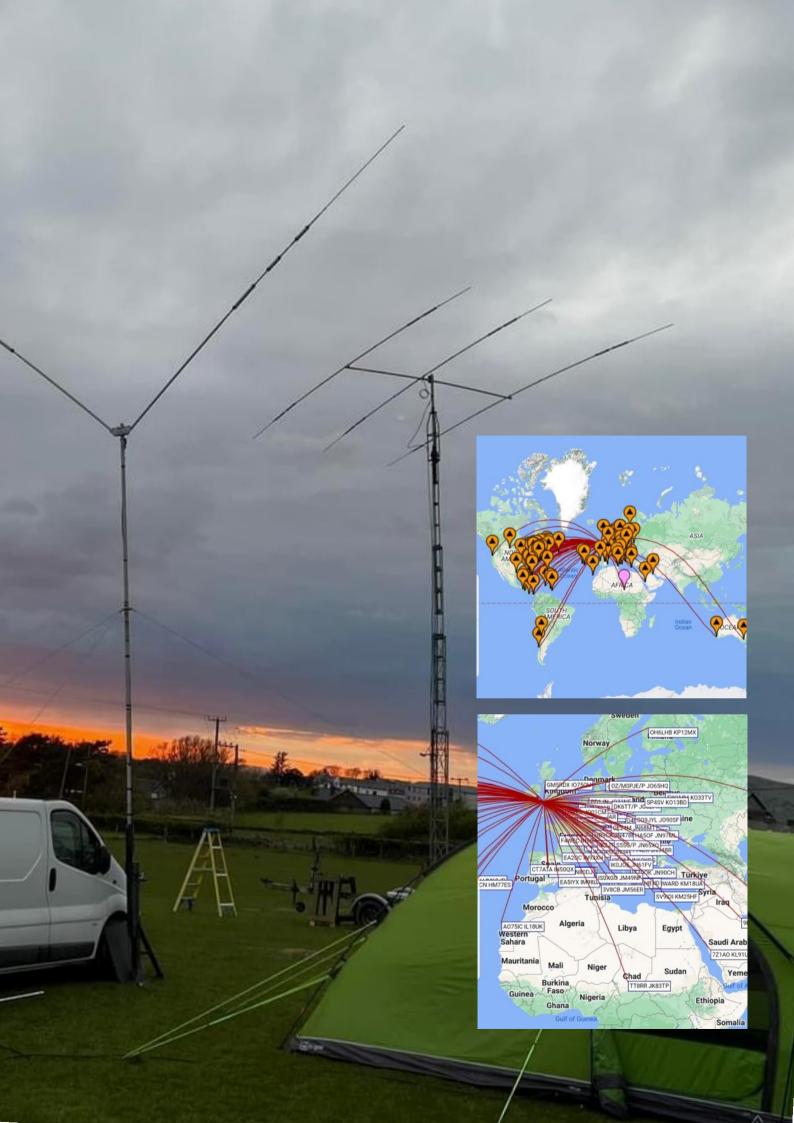
Members attending (apologies if any missing); John M0JZH, Mark M0XIC, Tony M0TZM, John M0XJA, Scott M7WUK, Neil M1NMG, Graham G7LMF, Mick 2E1FQO, Mike G6DFD, Paul G8AQA, Heather M0HMO, Pete M7FFR

Full report in next issue—for this month some photos.









A Strange Radio Problem Mike G3JKX

A strange radio problem In 1967 aged 30, as a newly promoted RAF Chief Technician, I was selected for the Queen's Flight at RAF Benson. One of the perks of working there was to sometimes accompany the aircrew on proving flights, for checking routes and timings etc for Royal visits.

On one of these flights I noticed that the navigator did not call up HQ at Andover on the HF radio for a Selcal check, but used an Irish civilian source instead. Therefore

I knew that there was nothing wrong with the aircraft's HF radio system. What is Selcal you ask?

Selective Calling. Every aircraft has a unique four letter group allocated to it, with each



letter having a different audio frequency. This four letter audio group, is transmitted in two pairs, separated by a very specific time interval.

These Selcal signals are transmitted when that specific aircraft needs to be contacted. The Selcal set is connected to output of the HF radio receiver and causes panel lights to illuminate. This means that the aircrew need not listen for voice calls continuously; only when needed.

Speaking to other Navigators, they all said that Selcal checks with HQ at Andover had never worked for years. This was really weird. So I rang up HQ Andover and spoke to the operator of the Selcal equipment there. He said that they checked the Selcal frequencies and signal output daily. Weirder still ! I then phoned the Transmitter site at Northwood and spoke to the Chief there.

Yes; the incoming Selcal signals were checked daily. So I called HQ again and spoke with a signals officer there, explaining the problem at great length and asked him to investigate. Several weeks later, the officer called me, explaining that the RAF had been paying BT a absolute fortune for a Gold Standard hard wired connection between HQ Andover and the transmitter at Northwood.....only BT had switched the connection from hard wiring to microwave links and not told anyone!



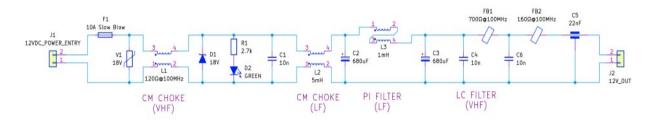
Those Selcal audio signals have only to be off frequency by just a Hertz or two and the aircraft Selcal would take absolutely no notice and the panel lamps would therefore not flash to gain someone's attention.. The hard wired connection was duly restored and the problem naturally vanished.

No medals; just great satisfaction, but I never managed to find out just how long this problem had been going on, with nobody questioning why! 73. **Mike G3JKX**

Related links: https://skybrary.aero/articles/selective-calling-system-selcal https://aircraftengineering.wordpress.com/tag/selcal/ Photos courtesy Google.

Shabaz has shared his idea for a filter circuit:

"I decided to try to build a powerline filter (suppressor) for radios. I know they are available readymade, but those are sometimes just a common-mode choke, or just a single filter. Mine has a lot of stages, also has some protection against any serious issues with alternator, ignition spikes, and accidental reverse polarity (I might need to beef that up further after some testing)".



I'm hoping this will fit in a small extruded metal box 80x30x30mm, but that may prove to not be possible.

Anyway if it's interesting, I can write up my progress to date. It could be a beginners project perhaps (might cost about £25 to assemble since the chokes cost adds up and there are a lot of them!).

Shabaz asks for comment, please post to TDARS groups.io

Another developing project MSI-SDR experiments by Shabaz M7YSZ

I've been experimenting with this MSI-SDR thing which isn't strictly a clone of RSP1, I believe it's a completely different design, but using the same chipset.

After a lot of effort, I can get some audio out (but not with any decent SDR software, only command line on Windows so far),

I only tested FM broadcast band briefly, with the supplied telescopic antenna. The output was poor, but worked and I could hear the station, but it should have been much clearer, since it was set to a very local FM station.

I got wondering, was the SMA input 50 ohms or something else. I had connected to the SMA socket labelled 50-120MHz.

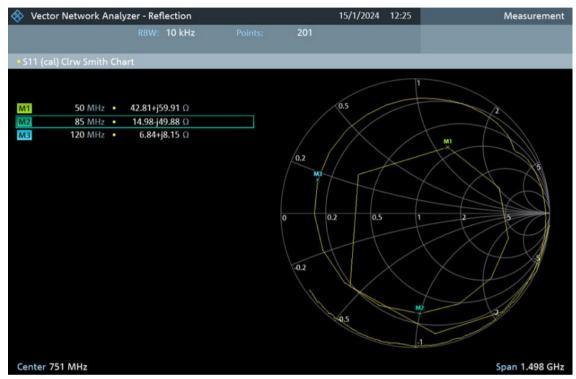


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MSI-SDR experiments cont. by Shabaz M7YSZ

I applied a VNA, and get the interesting result below. The markers are set to 50, 85 and 120 MHz. As can be seen, the impedance is definitely not 50 ohm.

I was wondering, is this a bad measurement that I did (since usually I don't use the VNA For the test, since I have no SMA OSL calibrator, I DIY'd them, i.e. got three SMA sockets, cut the legs off, and soldered surface-mount resistors (2x100 ohm in parallel), and shorted one with a thin copper sheet. Then I measured the distance from the reference plane to the back of the connector, and guesstimated that the offset delay was 11.49mm (assuming 2/3 speed of light). After calibration, I connected the calibrated end of the cable to the MSI-SDR (with it unpowered).



I don't understand why the output is so wildly off 50 ohm. Maybe I need to try to figure out the filter circuit (there are various schematics online, but zero chance of finding the exact one, so the component values in the filters are unknown).

Any suggestions of what to do next would be appreciated!
Ed Note: these sell between £19—£30 on Aliexpress.
Please post to the tdars groups.io any thoughts you have.

Contest Support Request

TDARS regularly enters the RSGB major contests, the VHF NFD & Six Meter Trophy

Please if you can help out there are many things that can be done, setting up, operating, logging, cooking, and importantly taking down. Operators are most fatigued after the contest so if you can only go and help take down Sunday, it would be most appreciated. *However— all help is appreciated!*

Contacts for volunteering: comment in TDARS Groups.io or secretary@tdars.org.uk

- Paul G8AQA for the 6 Meter Trophy [15/16 June]
- Mick 2E1FQO for VHF NFD [6/7 July]