



Mid Sussex Matters

Volume 5 June Issue - 2017



Chairwoman's Chatter

Firstly this is to remind you that on the 7th July we have our yearly Chairman's Barbeque. The tickets are £10 per person for the food.

We will also be holding a raffle with an 'Alcatel Tablet and keyboard' as one of the prizes. The tickets will be on sale at £5 per strip from Friday 30th June: that way you will have a chance to buy some even if you cannot attend the barbeque. The proceeds are all going towards the 'Men in Sheds' Crawley project. This helps men from all walks of life but those with Dementia especially.

For those that have not been along recently, all aerials are now working on the Cyprus Hall. This leads on to the

'Call-In Rota' that we were trying to set up. Now the aerials are ok perhaps members could help the club and put their name down on it once every 8-12 weeks. All that will be required is to arrive at 7:30 when the doors are open and to start operating the radios to 'warm the air up' using G1/G3ZMS, so that people that are listening are aware of the Clubs presence on a Friday night.

We had a couple of fantastic evenings, one being our yearly Construction Contest (pictures included further on).

The other being a light lecture about how to Log correctly from Sue G6YPY with a part by Mike G8KMP.

In a contest this can make the difference between getting 248 points for a contact and

getting zero. One letter or number incorrectly written makes the difference during contest situations as it results in no points for that contact.

Lastly our final high point was that we had our yearly anniversary by Jack & Jill Windmill in the car park. Some people put up aerials and transmitted to people across the world. By 8.30pm some of us went down the hill to the pub.

We did open up our shack to the public during the Festival Week, and we were also advertised in the Festival magazine for the week. During the evening we did get a reporter from 'Burgess Hill Radio' and that gave us some more free advertising the following day.

With regret our participation in VHF NFD is cancelled. Raffle prizes please for Barbeque on 7th July

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(This will only work from a members email address registered with the society)

Mid Sussex ARS Net Times—all times local

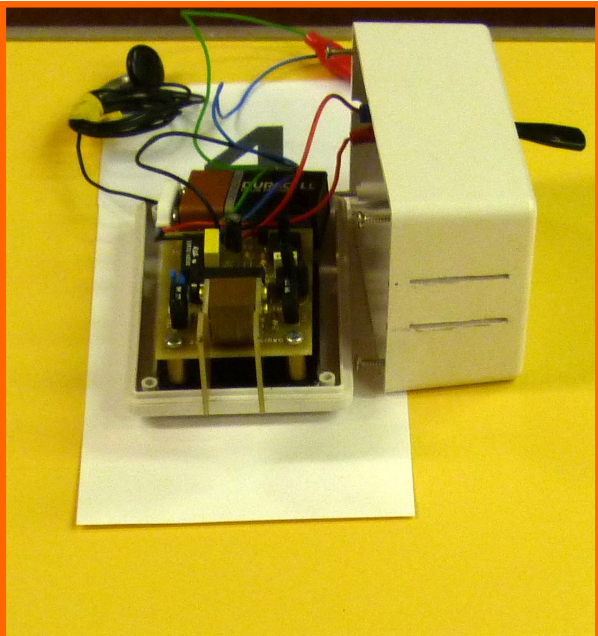
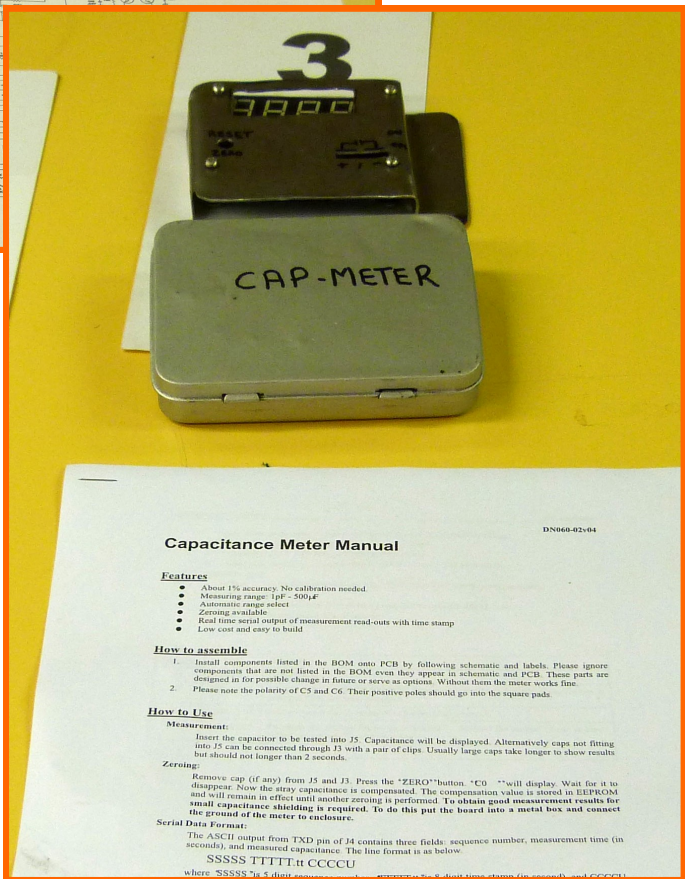
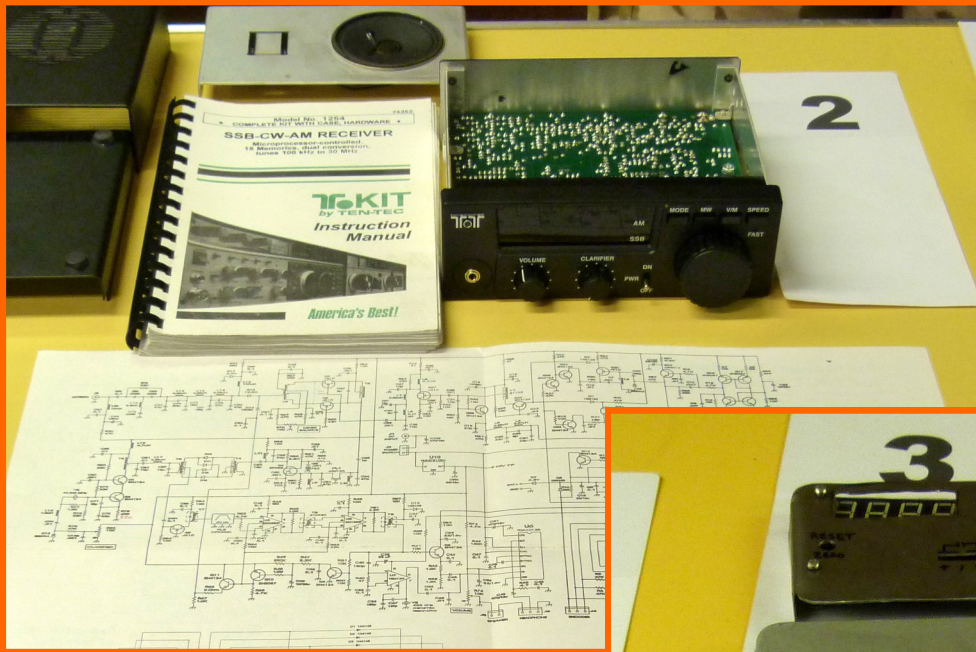
Sunday	0800	3.740MHz ⁺ /.QRM
Sunday	1100	145.350MHz
Weekdays	1330	21.330MHz ⁺ /.QRM
Tuesday	2030	3.725MHz ⁺ /.QRM (SCARF)
Wednesday	2000	145.350MHz

GB3HY is now working on the following frequency:

Listen 430.900Mhz, Transmit 438.500Mhz, CTCSS 88.5hz

Construction Contest 2017

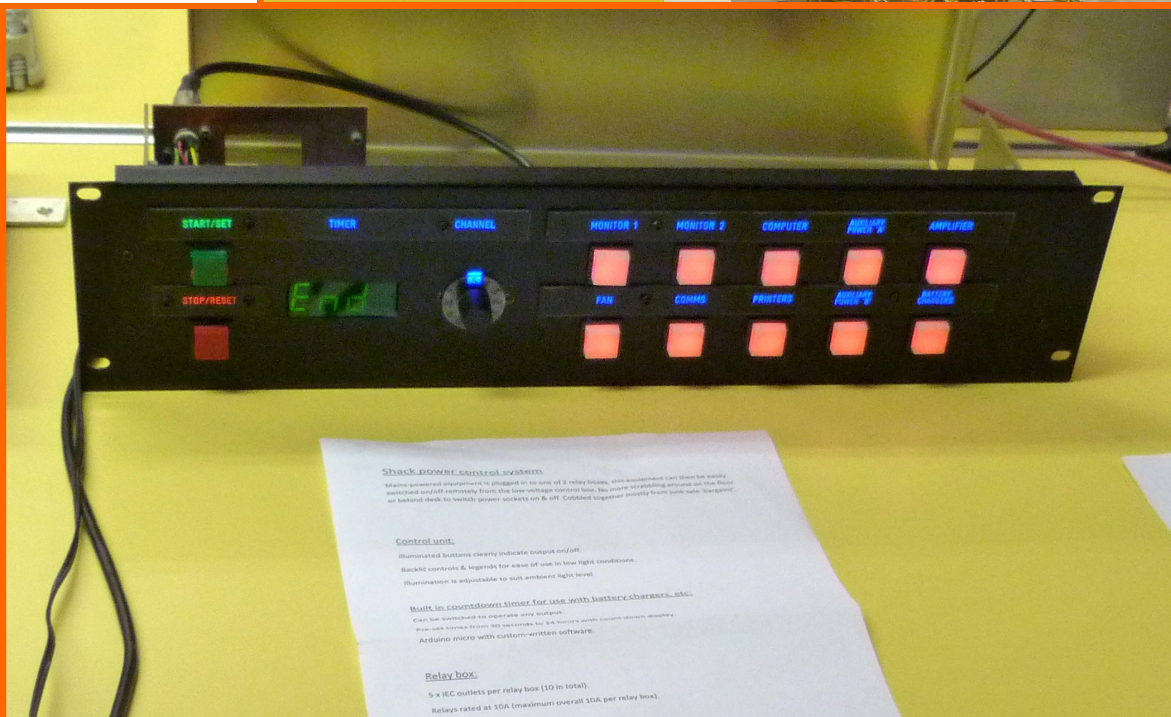
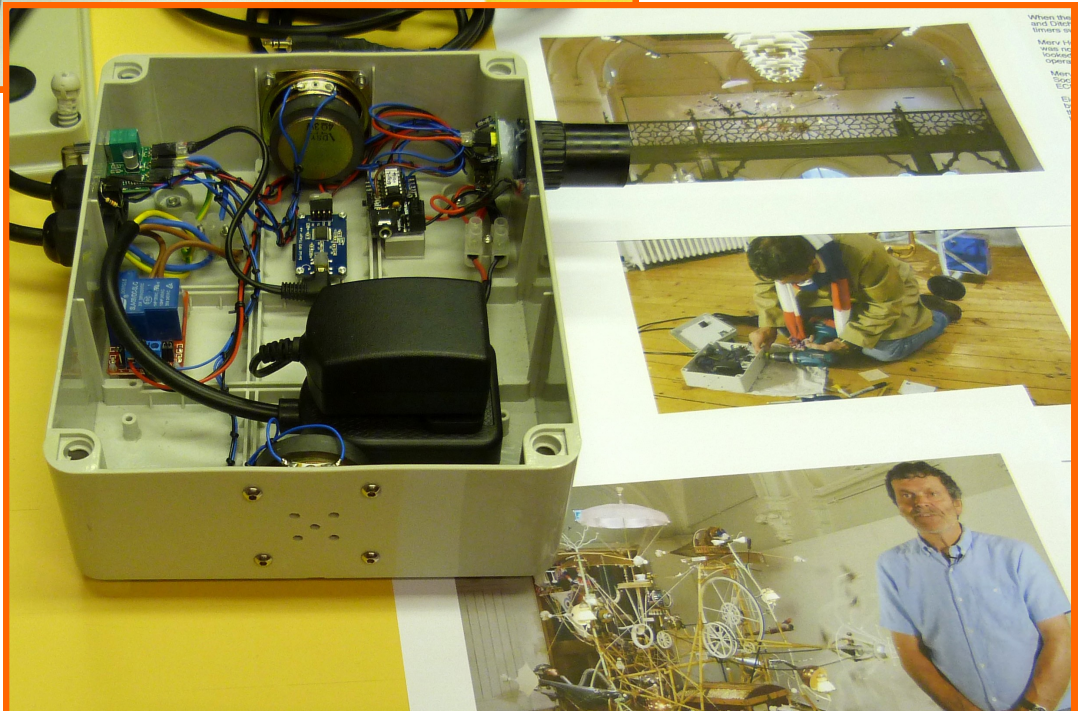
All Entries



TOUCH TWIN KEY AND KEYSER ASSEMBLY / OPERATION

KIT CONTENTS

R1	10K Brown - Black - Orange	C1	100nf Marked 104
R2	150R Brown - Green - Brown	C2	47mf 16V Electrolytic
R3	Not Used	C3	.022 400V Yellow
R4	1K Brown - Black - Red	C4	22pf
R5	750K Purple - Green - Yellow	C5	470nf Marked .47k
R6	750K Purple - Green - Yellow	C6	22pf Disc ceramic
VR1	100K		1 Main PCB
VR2	22K		2 Paddle PCB
VR3	1M		1 IC Socket
VR4	1M		1 Brass paddle mounting block
X1	4Mhz Resonator		1 Alloy base
TR1	BC546		1 Rubber feet





2017
Construction
Contest:

The Section 1
Construction
shield was
won by
Adrian
MoTCD for
the
construction
of his SSB-
CW-AM
receiver,
model 1254
Ten-Tec Kit.



The Section
2
Construction
shield was
jointly won
by Merv
2EoWVE for
his Emmet
Control Box,
and Chris
M1CSE for
his Shack
Power
Control
System.

Both Shields
presented
by our
Chairwoman
Stella

SOTABEAMS: W.S.P.R.lite (Weak Signal Propagation Report)

Introduction

This brief comment is in no way designed to supersede the excellent talk given by Phil G4UDU on this topic. It is simply a reflection on what I discovered when I purchased the unit and the Low Pass Filter.

Technical background

WSPR (pronounced "whisper") stands for "Weak Signal Propagation Reporter". It is a computer program used for weak-signal radio communication between amateur radio operators. The program was initially written by Joe Taylor, K1JT, but is now open source and is developed by a small team. The program is designed for sending and receiving low-power transmissions to test propagation paths on the MF and HF bands. (**Wikipedia**)

WSPR implements a protocol designed for probing potential propagation paths with low-power transmissions. Transmissions carry a station's call sign, Maidenhead grid locator, and transmitter power in dBm. The program can decode signals with S/N as low as -28 dB in a 2500 Hz bandwidth. Stations with internet access can automatically upload their reception reports to a central database called WSPRnet, which includes a mapping facility. (**Wikipedia**)

Procedures

- ⇒ 'W.S.P.R.lite' can be downloaded from <http://dxplorer.net/wsprlite>
- ⇒ 'Using your W.S.P.R.lite – Dxplorer' gives 'Using your W.S.P.R.lite' in P.D.F. format, which can be downloaded from the web.

W.S.P.R.lite: Low Pass Filter

This filter provides filtering for 160, 80 and 40metres.

W.S.P.R.lite: Electronic Load

'USB power packs are readily available and seem just perfect for powering your low-power USB devices. Unfortunately, many such packs will switch off if the current being drawn is too low. Our 'Electronic Load' allows you to adjust the current draw to just beyond the point where the load keeps switched on. It's an efficient and simple way of using your power pack.'

SOTABEAMS: W.S.P.R.lite (Weak Signal Propagation Report)

continued

W.S.P.R.lite: Transmission

'The transmission will sound like an Un-modulated Carrier – single tone. The data is encoded with very small frequency shifts that most people cannot hear:

The W.S.P.R.lite USB Nominal Centre Frequencies are:'

⇒ 630m 0.4742 MHz

⇒ 160m 1.836600 MHz

⇒ 80m 3.592600 MHz

⇒ 40m 7.038600 MHz

⇒ 30m 10.138700 MHz

⇒ 20m 14.095600 MHz (See Photo. No 1)

'Each time your W.S.P.R.lite is reprogrammed it will randomly pick a frequency within +/- 50Hz of these nominal centre frequencies.'

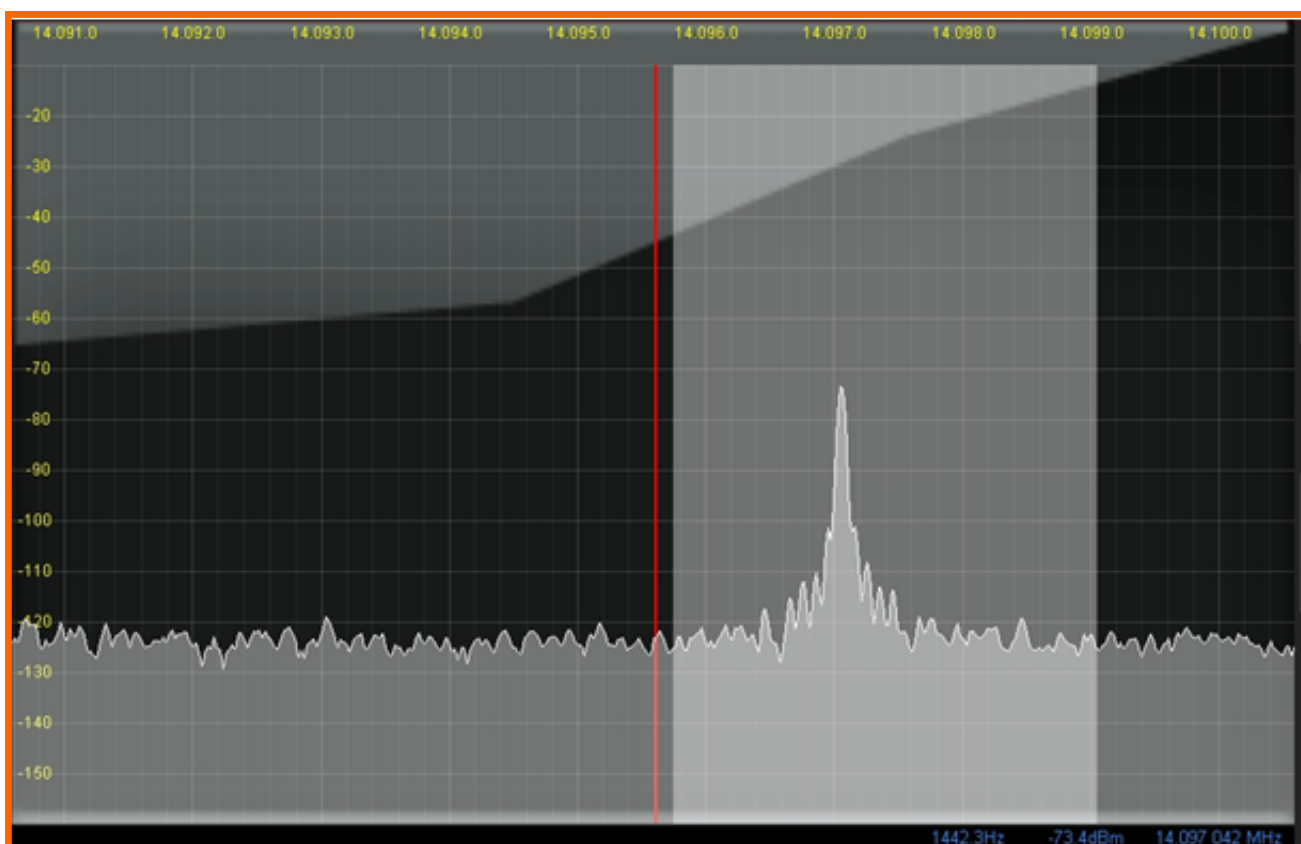


Photo. No 1 W.S.P.R.lite 14.09560 MHz U.S.B. Nominal Centre Frequency

SOTABEAMS: W.S.P.R.lite (Weak Signal Propagation Report)

continued

W.S.P.R.lite: S.W.R. (Windom Antenna) and Nominal Frequencies

Nominal Centre Frequencies S.W.R. (No A.T.U.)

- ⇒ 160m 1.836600 MHz 1:1.35
- ⇒ 80m 3.592600 MHz 1:3.02
- ⇒ 40m 7.038600 MHz 1:1.52
- ⇒ 30m 10.138700 MHz 1:2.49
- ⇒ 20m 14.095600 MHz 1:1.84

Typical Results:

DX10: MOTOT - 7 MHz - 200mW

Distance (km)	Call	Spots count	Last seen
1292	OE1RPW	1	2017-05-13 07:02
1154	IW3HRW	1	2017-05-13 07:02
1140	EA1FAQ	1	2017-05-13 09:46
1130	SM6WZI	2	2017-05-13 07:02 to 10:02
1061	DH5RAE	3	2017-05-13 07:02 to 10:02
1046	EA2RKO	1	2017-05-13 07:02
1033	SM7KHA	1	2017-05-13 07:08
1021	DL5RBD	4	2017-05-13 07:02 to 10:14
990	OZ1AAB	1	2017-05-13 07:08
971	DL1RDB	3	2017-05-13 07:02 to 10:02

Average distance: 1084 km

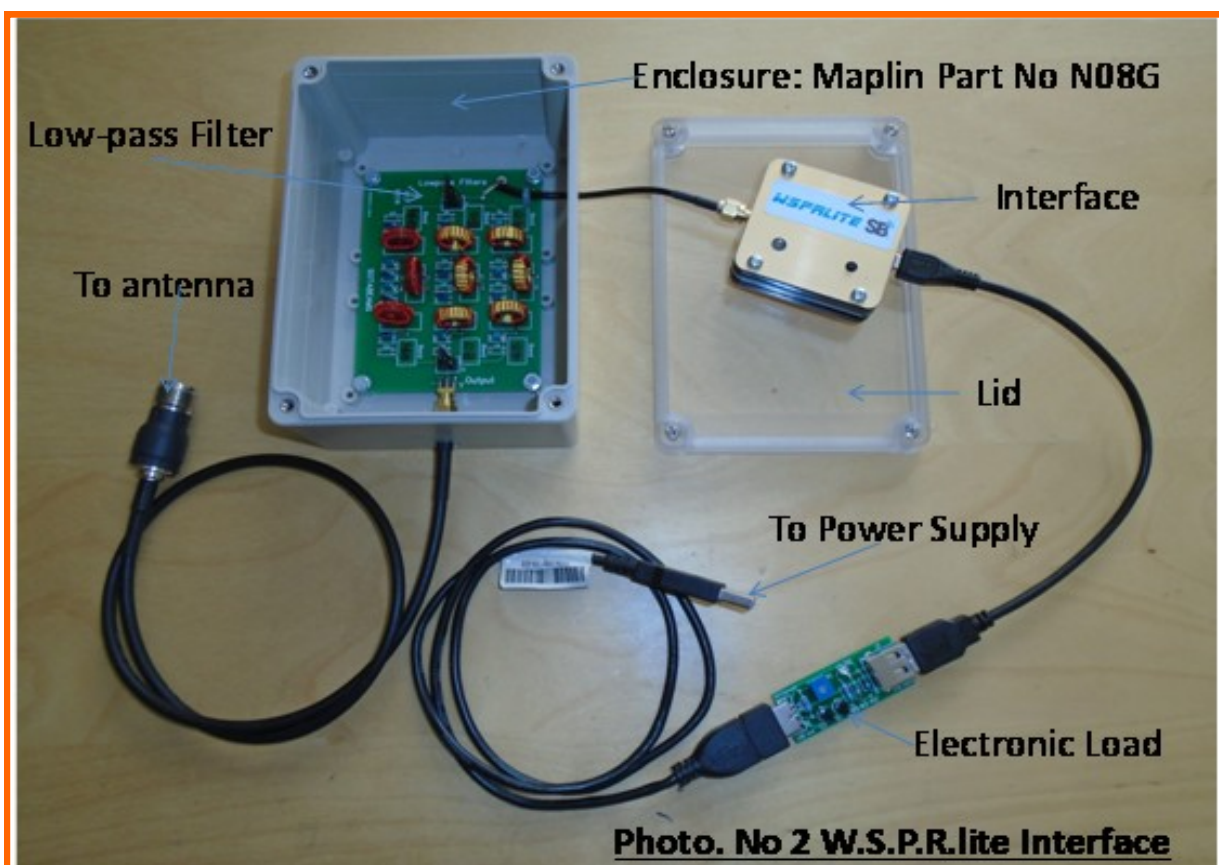
Comment

I tested the W.S.P.R.lite over a week covering all of its five bands. In each case, there was some two-way communication. The instructions advise against using the interface with a S.W.R. greater than 1:3.0. My Windom has a S.W.R. = 1:3.02 on the 80 metre Nominal Centre Frequency, as shown above. However the interface still managed to produce some results.

SOTABEAMS: W.S.P.R.lite (Weak Signal Propagation Report) continued

As I did not have a suitable stable power supply to 'drive' the interface, I also bought the 'Electronic Load' from SOTABEAMS. A note in 'Getting on the air' recommends using an accurate time clock; I downloaded the app 'Atomic Clock' which proved satisfactory. Each time I reset the interface, using the clock, I checked for transmission with a radio.

If you purchase the 'Low Pass Filter Kit', you have to wind the nine toroids and install them and their associated capacitors. The complete setup is shown in Photo. No 2 & No 3.



Other sources:
'W.S.P.R.lite from
SOTABeams' ; RADCOM;
June 2017; Page 42 to 44;
Steve Nichols GoKYA.

Diary Dates May 2017 and July 2017

07 July Friday - Out - Chairman's Barbeque

14 July Friday - Millfield - Radio Night

21 July Friday - Millfield - Radio Night & Table Top Sale

28 July Friday - Out - Walking Fox Hunt

04 Aug Friday - Millfield - 'On Air Night'

11 Aug Friday - Millfield - Radio Night & Table Top Sale

18 Aug Friday - Millfield - Radio Night

25 Aug Friday - Millfield - Talk by RNLI

01 Sep Friday - Out - Fox Hunt

08 Sep Friday - Millfield - Talk About Smart Phones by Chris G4ZCS

15 Sep Friday - Millfield - Radio Night

Copy

I am hoping to go to print each month. For this I need copy from any one of you however small and it **may or may not be** radio related.

All articles and photographs are the copyright of the authors. Contributions are invited from Society members and should be sent to newsletter@msars.org.uk

If you have some great old pics that need to be aired I can share them with the rest of the club. Otherwise you can use Snail mail to my address at: 28 Damian Way, Keymer, Hassocks, West Sussex, BN6 8BJ.

Request for copy around 6th—10th with copy to me nominally by the 15th of each month.

If I get no copy there will be no MSM, it is as simple as that.

73

Stella, Editor of MSM

Amateur Radio Insurance General Information

South West Broking Ltd Insurance Brokers

South West Broking Ltd is pleased to offer insurance for radio amateurs.

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Insurance is available to individuals, clubs and Raynet Groups

Cover is provided for "All Risks" of loss or damage to your amateur radio equipment including masts, aerials and ancillary equipment by theft, water damage, lightning strike and other accidental damage.

- Cover at your home or club house.
- Anywhere in the United Kingdom.
- Anywhere in the world.

For All Your Radio
Insurance Needs

there is no better company than

South West Broking
Ltd

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- New for Old

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- Wear and tear, gradual deterioration, frost, faulty or defective design or materials or workmanship.
- Mechanical or electrical breakdown or derangement.
- Losses from unattended vehicles unless certain conditions are met.
- An excess of £50 applies if you have cover restricted to your premises only but this is increased to £75 if you have selected cover for anywhere in Great Britain or worldwide. In respect of outdoor antennae and masts, you will be responsible for the first £250 each and every loss.

Third Party Personal Liability

Personal Liability providing cover against injury to third parties or damage to their property arising from your negligence is included as standard whilst you are engaged in any amateur radio activities.

For further information, please contact Julian Dent
Telephone: 01454 806503
Email: julian@southwestbroking.co.uk
www.southwestbroking.co.uk



Scan here for more information

South West Broking Ltd – Amateur Radio Insurance Scheme v4 September 2016
This is only a brief summary of cover and does not form part of any policy document or implied quotation or contract

Mid Sussex Amateur Radio Society



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