

Mid Sussex Amateur Radio Society
NEWSLETTER
July 2007

Mid Sussex Matters



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FROM THE PRESIDENT'S CORNER.

Well where has the summer weather gone? Wet Ascot, flooding and heavy rain again, and everything except a Drought Order preventing us watering the gardens. More reason than ever perhaps for us to consider our collaboration with the Emergency Planning Officer and prepare ourselves for whatever is to come.

Another poor month on the HF front but I do hope that those of you who went to Freidrichshaven enjoyed yourselves and came back with lots of goodies.

Finally, a reminder that the IOTA Contest is on July 28/29. This will fill the HF bands with specially activated Islands and lots of activity. A good test of your new antennas!

73,

Ken Gibson G3WYN

An Appeal from Norfolk Island

Having trouble working Norfolk Island? If you can help Jim VK9NS with finding a lost treasure he will probably put you at the top of the pile-up. Jim writes:

“I am trying to locate an old multiband, CW/SSB transceiver that I built in the early 60's. In my search so far, I had a lead the other day that it might have been sold to someone in Sussex. It was sold by a WSM ham now a SK (G3YNI) in 1969/70 but the call of the buyer is not remembered. The rig was based on the Collins KWM 2 series and I would love to have it back within my family. It had either 20 or 21 valves.”

If you have any information on this rig, send it to James B. Smith, VK9NS, PO BOX 90 Norfolk Island, NI 2899, Australia, email jimkirsti@ni.net.nf

On The Cover

The GB3HY Antenna site—the old water tower at Princess Royal Hospital in Haywards Heath. The four stack dipole array is in the left hand corner. See article on page 5.

From the Chair

Well it's June already, June the 15th to be honest, so once again this is running late for Bob. Heavy showers have been forecast for today and this evening. What are we doing? Meeting at Jack and Jill Mill car park for our 41st birthday bash. Oh well, it seems fine at the moment, if a little windy.

The last few weeks have been varied with club activities. Bob BUX gave an interesting talk on Automatic Packet Reporting System (although he admits there's not a great deal of activity in this neck of the woods), showing how one can keep track of a mobile station using your radio, interface and FREE software. Bob did say that if you travel to the South West, there does seem to be a lot more interest. So there is something else you could play with.

The Boule evening was a great success (well I would say that, because for the third year in a row my team won!). For the first time it was held at the QTH of Mike G1TDM who made us very welcome indeed. So, on behalf of the members, Thank You, Mike and Sue. My personal thanks go to my team of Jac 2E0FQV, Phil M5BTB, Tom M3FZQ and William M3VRE who took over from Tom.

While I am thanking everybody, may I take this opportunity to thank those of you who responded to my plea for volunteers to form an Outside Events Team. I intend to have a meeting with you after VHFNFDF. I am not sure if you will be reading this before NFD, but MSARS are entering 2mtrs, 70cm and 6mtrs in the low power section so wish us luck. Hopefully a report and photos will be in the next issue of Mid Sussex Matters.

On a serious note, it has been said that we are moving away from radio and that there are too many outside activities. My and the committees response to this is, there are *four* outside social evenings throughout the year plus two foxhunts, which are all well attended. There are always more members turning up for our radio evenings than lectures. At the beginning of the year at the round table we were asked could we have more trips. Well, yes we can, but it was hard enough to fill the mini bus to Lynch's!

Yes, we are a radio society, we do operate radio, we do hold a very cherished call and are very proud to do so. But it is your society, you tell us what you would like to do. If you have any ideas for a talk then come and have a word.

Finally, the HF rig was fired up from the HQ shack in anger a couple of weeks ago by Chris ZCS. The good news is that the Organ Club didn't complain! So it looks like the new filters have done their job.

Kim Newland G7AIE

Editorial

The President and Chairman have both dwelt on the topic of rain so, to be consistent, I will stay on the same theme. The good news is that rain did not interfere with the 22 June fox hunt. It might have been more merciful if it had, at least for G6XTW and me. We did learn some valuable lessons, one of which, a cynic might observe, would be “don’t bother hunting foxes”. But we have both resolved to be back for the next one, expecting better results.

The main effect of the rain here at the G0BUX QTH has been to frustrate my plans to rig a couple of new antennas. I may have mentioned to a few of you the months-long saga of seeking planning permission for my antenna installation. At the end of May Wealden District Council finally granted permission and I set to work with copper and aluminium to turn my dreams into reality. If you shared my vision of a soaring 65 ft tower surmounted by a 3-element beam, we were both disappointed: the Council approved a much more modest plan for a semi-recumbent G5RV inverted vee and a vertical, bracketed to the back wall of the house, for 2M and 70CM. But at least I will soon be back on the air and in search of contacts and awards. The latter will probably include the coveted WANT award. That’s Worked All Neighbours’ Tellys, for which a handsome certificate is provided by OfCom.

The club had planned to operate at the Seaford Fun Day on 1 July but at our meeting on 29 June it was decided that sloshing around in the rain and mud didn’t sound like fun so our participation was cancelled.

So far the year has been one of records: The hottest April, the wettest June. I hope we can set some MSARS records as well, in the form of Field Day scores. But doing so will depend on record attendance at these events. Make your plans now.

Bob Clinton G0BUX

GB3HY update

GB3HY is located at the Princess Royal Hospital in Haywards Heath. First operational in 1989, GB3HY operates on channel RB5, (433.125 MHz transmit and 434.725 MHz receive, CTCSS 88.5Hz). The system in general has served the Mid Sussex area without any major problems. The engineering support team consists of Gordon G3XTH, Paul G0OJA and Alan G8YKV.

The time has come to change the hardware as a large quantity of ex police PMR base stations already programmed for UK repeater use have become available. The group has now obtained two units to replace the aging Motorola Micor and the unit will be changed over later in the year. Full CTCSS will be implemented, i.e. no tone burst access.

Also, we have not been able to comply with the thirty minute close down procedure, part of the NOV requirements. To overcome this problem a remote control unit has been designed and developed by Paul and Gordon. At last we seem to have found a suitable unit which will switch the system off and also provide a number of status parameters, i.e. mains failure, high VSRW and Battery failure. If separate funding can be obtained we are planning battery backup hardware which will give a minimum of 12 hours battery operation.

HY funding has always been from donations and supported by the sale of surplus equipment. The average annual running cost is about £35, which only covers the insurance and a donation to the Princess Royals children's ward for the electricity used by the unit. Over the years that HY has been on the air, the many regular users have topped up the funds to cover the day to day running costs and any updates and repairs that are required.

The build cost of the remote control system along with two complete base stations has been funded from our building society account; this has made quite a dent in the account, (some £400 to date), so please help to maintain your local repeater and our funds.

Hopefully we will bring a new complete working unit to a club evening. This will give you the opportunity to ask questions and find out what goes into making a 70cm amateur repeater.

When the combining filters for the UHF pager were first introduced the coverage area of HY dropped considerably, The good news is that, since the pager is no longer in service, these filters will be removed in the near future and coverage should improve.

Gordon King G3XTH

Construction Contest - 25 May 2007

This year was a record - no Blu Tack to be seen, so thank goodness for that! Everyone seemed very relieved that the old chestnut had finally been killed off. The event was attended by 23 members and guests and a wide variety of constructed items were on show:-

- A Remote Antenna Switch for operation of a PICaTune remote ATU.
- A power supply for an HRO receiver that produced 240Vdc and 6.3Vac.
- A decorated cardboard box marked as a "Pic A Tune with a difference".
- A RadCom "In Practice" transceiver/computer interface - RS232/TTL for an Icom radio.
- An aerial rigging kit consisting of 12 wooden arrows.
- A battery charger and an ATU, both of some vintage. (Later it was disclosed that both items had been made and used by G5RV).
- A radio controlled glider.
- A mains power distribution box complete with TX & RX Control boxes plus a robotic vehicle.

Tony G3NPF was our invited judge and he examined the submissions whilst at the other end of the room, Kim G7AIE showed four short videos to the audience.

After the videos Tony spoke in some detail about each item and said that he was amazed at the diversity of the submissions. He discovered that the decorated cardboard box contained a quantity of vinyl 45s which he admitted that he remembered.

He declared that the winner of the Section 1 trophy should be Alex Henderson M3TEU, for his mains power distribution box with controls along with the robotic vehicle. The winner of the Section 2 trophy was Chris Cook G0GMC, for his radio controlled glider.

Roger Ferrand G7VBR



President Ken Gibson G3WYN presenting Chris Cook G0GMC, with the MSARS Constructors Trophy for Section 2.



Boule Evening at the QTH of QTH of Mike Mundy G1TDL , Friday 1 June

CLUB NET TIMES

Join in if you can. All times are UK CLOCK times.

Sunday	08:00	3.74MHz + QRM
Sunday	11:00	S14 (145.350MHz)
Sunday	20.00	HY Net 433.125Mhz
Wednesday	20:00	S14 (145.350MHz)
Weekdays	13:30	21.330MHz. Work the USA
Tuesday	20:30	3.725 MHz + QRM SCARF

Deadline

The deadline for items for the July issue of Mid Sussex Matters is

15 July 2007

APRS Talk by GOBUX

In early June Bob entertained and informed the members of APRS, the Automatic Packet Reporting System. His presentation was split into three sections - What, How and Why - and he displayed various schematics on the screen and demonstrated actual working equipment.

WHAT - APRS is a system for digital tactical communications, (not for rag-chewing), introduced in 1992 by Bob Bruninga WB4APR. The system uses the AX25 packet protocol with special APRS packets embedded in the AX25 packets and works on the 144MHz band, (144.800 in Europe). It operates in unconnected mode which means that anyone can pick up the signals.

HOW - A typical APRS station consists of:-

1. GPS receiver with a RS232 output (available from the Web)
2. Integrated option in one box, either a Kenwood D700, D710 or TH-D7A handheld. Alternatively an existing TX/RX and a TinyTrak unit could be used. (See Figure 1)

The mobile unit in Bob's car transmitted on 3 Watts every 3 minutes so power consumption was low.

A typical Fixed APRS station would be as follows:-

The TNC unit could be either a physical unit such as the Kantronics or software could be used, (AGW-PE). (See Figure 2)

The range of the system can be extended by use of Digipeaters, APRS internet services, Igates,(where packets are received and put onto the Internet), as well as the use of an APRS database and search sites.

WHY - APRS can be used to:-

To disseminate WX information

At Public Service events, (cycle races etc.)

For the tracking of mobile stations in emergencies

Text messaging

eMail (via Digipeaters connected to the Internet)

We're Hams - do we need a reason?

After the refreshment break, Bob gave a demo of his kit and using the UI-View 32 map software on his laptop computer showed his car with its mobile unit as being located in the car park nearby. Bob commented that unfortunately he currently appeared to be the only user in this area but during his travels he has detected other users in Kent, Surrey and the West Country.

If you would like to have a copy of the presentation in PDF format or a copy of the information sheet that was handed out, please contact Bob at rhclinton@tiscali.co.uk

Roger Ferrand G7VBR

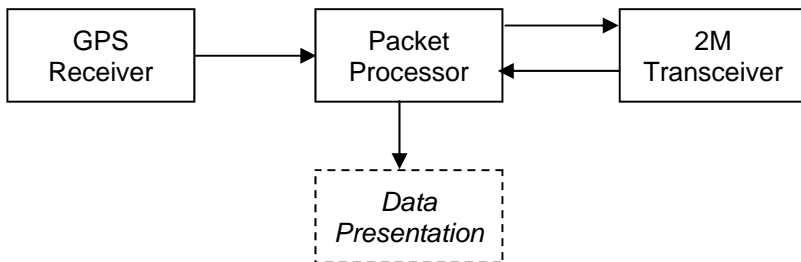


Figure 1

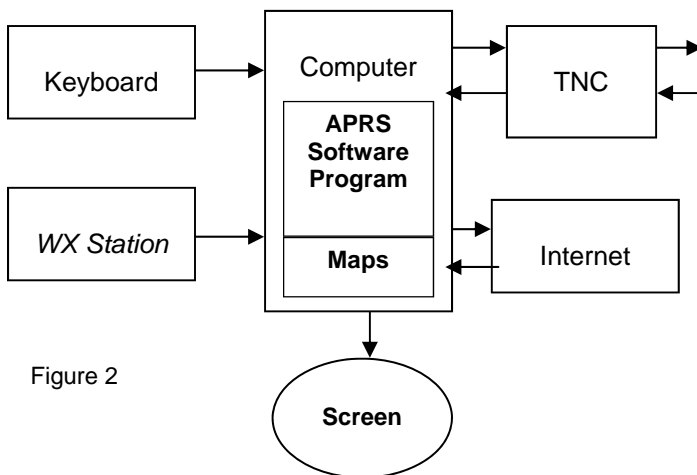


Figure 2

QRP Contest 2007

A few members of MSARS have entered this competition for several years using the Jack & Jill car park and more recently the car park at the top of Firle Beacon. This year was the 75th Anniversary of Practical Wireless who have always sponsored the event and a special certificate will be issued to all participants.



G7AIE , G6XTW, 2E0FQV and G4XBG take a break from the contest.

This year the station was setup by John G6XTW, and he provided a 2m lightweight beam mounted on a tripod, a FT 817 plus the necessary normal home comforts of a table, chairs and sunshade. He was joined by Roger G7VBR, Kevin G4XBG, and then by Kim G7AIE and Jacqui 2E0FQV. Kim brought the last essential comfort of the day, a portable cooking device for making the tea and coffee. Later in the morning the party grew when Alan G8YKV and Stella, SWL arrived. The operating times were from 09:00 to 16:00 UTC.

The station used G5RV/p and managed to work 60 stations including Guernsey, Cumbria and Wales. The number of squares was 16 which should give a score of 960. Several distant stations commented that they enjoyed working the callsign again and thought it was right to use G5RV for certain events. There was some QRM but a lot less than last year when the Police antenna installation not far away gave some grief.

There was some initial disagreement about the locator square to use as three Sat Nav units and a map gave different results. Eventually it was found by walking the area with a hand held device that the car park was at the junction of 4 squares! The three stations that had been logged before the change of square was agreed, were contacted again during the event and the logs were corrected.

All in all a simple but good day of operation and roll on next year. Please come and join us. The date will probably be 12 June 2008.

Roger Ferrand G7VBR

Martin Lynch Trip

The annual visit to Martin Lynch & Son on 19 May turned out to be more of an adventure than usual for the eleven members who made the trip. We set off from Burgess Hill with Alan Cragg G8YKV, at the wheel of the hired bus and everything was routine until we got to Chertsey, where the satellite navigator led Alan down a couple of narrow streets. He made remarkable recoveries in both cases but just as he was about to turn back onto the



main road, a great cloud of black smoke emanated from the exhaust and the bus would go no further. Fortunately it was a fine day and we were within walking distance of ML&S, where Alan and Stella worked the phones and arranged for recovery of the bus and, even more important, recovery of the MSARS party.

Although there were plenty of ham radio treasures on display, the item that attracted the most attention had nothing to do with the hobby. This was the Kinetic Avionic Products SBS-1 Real-Time Virtual Radar which receives transponder signals from aircraft and displays tracks and information on a PC screen. Flights in the vicinity of Heathrow, Gatwick and other UK airports were easily tracked. If plane spotting from the comfort of your own shack appeals to you, one of these can be yours for £499.95.

Despite this distraction there was plenty of emphasis on the main purpose of the trip. Money changed hands and several members left with new possessions, the most significant being a new antenna system for the GB3HY repeater. For those who thought the main purpose was the fish and chips provided by ML&S, they were not disappointed.

A 16 seat mini-bus arrived as promised, Alan got a well-deserved trip as a passenger, and we were back at Burgess Hill on schedule. Those sharing the adventure were M5BTB, G4YCN, M0ZSA, G3XQM, G0WGP, G3XTH, G9KMP, G0BUX, G8YKV and Stella.

The High Flier

It was the week after the annual Jack and Jill car-park meeting and Louis was keen to learn how the event had gone. I told him there had been a good turnout and that there had been quite a lot of radio activity. There had also been a bit of a nip in the air with enough wind to keep the kites aloft. He was particularly intrigued by the account of the kite flying and before long had launched into his own kite story.

Back in his early days as a trainee technician with the Marconi Company at Chelmsford the Stores Department held a fascination for Louis. It wasn't just because all the lovely wireless goodies were laid out as if in some Aladdin's Cave, there was an added attraction. Any item taken out of stores and later returned was considered second-hand and sold at a reduced price, even if had been used only for display or demonstration purposes. So, for a budding inventor and keen construction whiz-kid on trainee technician's pay, this was right up Louis' street.

On this particular day Louis was sorting through some of the odds and ends, in an area of the stores away from the more formal racked equipment, when part of a wooden frame, with canvas attached, caught his eye. Hallo, he thought, what's this? Moving some of the other gear away, he got a better look. It couldn't be could it? --- It was. What a find. A Marconi Kite!

The use of kites by Marconi in his early pioneering wireless experiments was well known to Louis. He had lapped up the stories of the six kites shipped out to St John's in 1901 after the tower on Signal Hill collapsed in the wind. The first two kites suffered a similar fate, one crashing into the sea when the line parted and the second smashing into the valley alongside the headland site before the first ever trans-Atlantic wireless signals were heard on the 12th of December 1901. The kites, hexagonal, about six feet by six feet, were then re-packed and sent back to the Marconi works at Chelmsford. There had been further use of kites of different design and in 1910 a box-kite enabled a record-breaking 3,500 mile transmission to be made.

It had never occurred to Louis up until then that he might be in a position to get his hands on an item of such legendary equipment. However, supposing the store-man was unaware of the significance of this piece of kit, then perhaps.....

Louis went for the casual approach: "I see you've an old kite down there. It might be a bit of fun to see if I could get it going. How much do you want for it?" The store-man was diffident. The 'old kite' wasn't a stock item and as such didn't appear on any regular price list so how was he to gauge its value? Any possible sale looked like stuttering to a halt, so, forgetting the casual approach, Louis came up with an offer. "How about half-a-crown" Big mistake. In his previous dealings with Louis the store-man had learnt a couple of things about him. One, was that he believed in the old saying that a fool and his money are soon parted and two, was that Louis was no fool. The store-man said he would think about it and to come back and see him later.

The store-man went a step further than think about it. He sought advice from his boss. "How much is that 'old kite' worth", he asked. His boss said, "Why do you want to know". "Because I've been offered half-a-crown for it", came the reply. "Who by?" inquired the boss. The store-man told him. The reply from the boss was succinct. "You can tell young Varney, or any other smart Alec, that they can keep their half crowns in their pockets". He then went on to give the store-man a brief history of the part played by kites earlier in the century.

Unaware that the store-man had now been briefed, Louis went back to Stores later that day hoping to conclude the transaction. Instead, a stony-faced store-man conveyed the message from his boss, plus a few terse comments of his own. Louis departed with a flea in his ear. Clearly this was not the day on which his venture into big business, or the kite for that matter, would get off the ground.

Ron Glover GØWGP

Solar Cycle 24 Prediction

Just found the cycle 24 prediction at..

www.sec.noaa.gov/SolarCycle/SC24/ssn_predict.gif

It looks like we could be in for a good couple of years between 2010 and 2014!

Chris Saunders G4ZCS

Mid Sussex Happenings

July 6	Preparation for NFD Weekend (U)
July 7, 8	VHF National Field Day, South Downs
July 13	Radio Night (D)
July 20	Radio Night and Table top Sale (D)
July 27	Field Exercise - Test Reception within Sussex
Aug 3	Chairman's Barbeque
Aug 10	Radio Operating Evening (D)
Aug 17	Radio Night and Table top Sale (D)
Aug 18, 19	Lighthouses on the Air
Aug 24	Fox Hunt
Aug 31	Radio Night (D)
Sept 1, 2	HF Field Day
Sept 7	Talk (U)
Sept 14	Radio Night (D)
Sept 21	Radio Night and Table Top Sale (D)
Sept 28	Skittles Evening Royal Oak Barcombe
Oct 5	Talk (U)
Oct 12	Radio Night (D)
Oct 19	AGM & Wine and Cheese (D)
Oct 26	Surplus Equipment Sale (U)
Nov 2	Talk (U)
Nov 9	Radio Night (D)
Nov 10	St Wilfreds School Fireworks ?
Nov 16	Radio Night and Table Top Sale (D)
Nov 23	Talk (U)
Nov 30	Radio Night (D)
Dec 7	Christmas Dinner
Dec 14	Christmas Quiz and Mince Pie Night (D)
Dec 21	Radio Night and Table Top Sale (D)
Dec 28	Meeting at a Pub
Jan 4	Meet the Committee and Round Table Evening (U)
Jan 11	Radio Night (D)
Jan 18	Radio Night and Table Top Sale (D)
Jan 25	Battery Operations (U)

Meetings are held on Friday evenings starting 7:45 at
Cyprus Hall, Cyprus Road, Burgess Hill. West Sussex, unless other-
wise noted. U=upstairs, D=Downstairs

Visitors are always Welcome

MSARS Needs YOU!

Two activities in July need your participation.

The first is VHF National Field Day on Saturday and Sunday, 7 and 8 July. Operation on both days start at 1000 BST but if you arrive a bit earlier you can help erect antennas, tents, etc. The QTH is Standen Farm, TQ30901190, reached by an unclassified road which leaves the A27 at TQ30240941. After turning off the A27, follow signs to the site. Talk-in will be on 145.350 MHZ. This is the site from which the club has operated for a number of years; temperatures ranging from very chilly to extremely hot can be expected, so bring a variety of clothing as well as your lunch. Drinks will be provided. Operation will be on 6M, 2M and 70CM; operators and loggers are needed.

The second activity is on Friday, 27 July and is conjunction with Mid Sussex District Council Emergency Planning. This is an exercise with the objective of determining radio coverage within the District in preparation for providing emergency communication. Members with mobile installations capable of operating on 2M and 70CM are needed for this exercise but those without their own mobiles can help as navigators. Check in on 145.350 at 1930.

Sue Davis G6YPY is coordinating both of these events. If you need further information or directions, contact her on 01273 845103 or at sue@figgerit.co.uk . For the 27 July event please contact Sue in advance to provide your mobile phone number and to receive a location assignment.

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73 Guildford Street,
Chertsey, Surrey KT16 9AS**

Web: www.hamradio.co.uk

Tel: 0845 2300 599
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E-mail: sales@hamradio.co.uk

Mid Sussex Amateur Radio Society

President	Ken Gibson	G3WYN	01444 412420
Vice President	Mike Pollock	G8KMP	01444 244953
Chairman	Kim Newland	G7AIE	01444 233040
Vice Chairman	Chris Saunders	G4ZCS	01444 247177
Secretary	Gavin Keegan	G6DGK	01825 722045
Treasurer	Stella Rogers	SWL	01273 844511
Programme Secretary	Sue Davis	G6YPY	01273 845103
Shack Manager	Alan Cragg	G8YKV	01273 844511
Committee	John Humphrey	G6XTW	01273 588556
Committee	Russell Nelson	G7TMR	01444 236795
Committee	Rob Ashman	2E0RJA	01444 232129
Auditors	Geoff Davis G6MJW, Hugh Wright 2E0HMW		
Reserve Auditors	Roger Ferrand G7VBR, Tony Finch G3XQM		

Club Web Site: www.msars.co.uk Email address: info@msars.co.uk

Newsletter

Contributions are invited from all club members. The cut off date is the 15th of the month prior to publication.

Address all contributions to the editor:-

Bob Clinton GØBUX

**Appletrees, Alexandra Road, Mayfield, E Sussex TN20 6UD
Home Tel: 01435 873279 Email: m.s.matters@btinternet.com**

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**Tel: 01293 851053 Email: mike.webb@printedword.co.uk
FAX: 01293 851900**