



Itchen Valley Amateur Radio Club Annual Report 2018 / 2019



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IVARC Chairs Report

AGM March 2019

A steady year for the Club with a good range of talks / lectures, thanks go to

| | |
|---------------|--|
| Paul M1CNK | Halo |
| Andy G4JNT | WSJT |
| Graham G3XSD | MMANA-GAL |
| Ray G3HRH | Contesting using N1MM+ |
| Richard G3OTK | Measuring Filter Characteristics using broadband noise |
| Paul M1CNK | Using N1MM+ |
| Brian G0UKB | Raspberry Pi |
| Paul M1CNK | Presenting G8JFJ's video |

Ideas are currently being explored for the new lecture programme, any offers of topics or lectures will be gratefully received.

Like all clubs, there are difficulties in recruiting and keeping members. Our hobby covers such a wide range of interests these days that individual groups will naturally be of small size. A common interest project like the Loop project showed that if you can find a project which generates a large interest, it can be a very successful one. This is being explored for the new season.

This is my final year as Chair of IVARC, thanks must go to Paul Garland, Ken and Graham, whose advice and nagging kept me on the straight and narrow...well sort of!

Maintenance was carried out on the Club's trailer mast, doing this encouraged me to have a go at mine which was long overdue, you're supposed to carry a full overhaul every one or two years...Mine hadn't been done for at least 15 years...It was all the wife's fault, making me do all the gardening and house maintenance.

Mind you my second job as equipment officer will still continue...the wife hasn't fully caught up yet with how much garage space has been allocated to the Club's stuff.

My third job also continues...selling off the remaining equipment from Mike Rowlands and various donations from individuals.

Finally thanks to all the members who have continued to support the Club.

Duncan G3RQF

Mills-on-the-Air 2018

Bursledon Windmill as GB1BWM



by Colin G4GBP

Thanks to all who turned up early to open the Mill and the crew who immediately set-to to build GB1BWM Special Event Station. The first part of the setting up is the erection of the 40' masts. With a good team this does not take too long. As you see below, we have a collinear on the top for 2m. All the guys and halyards in place it was time to raise (in the first instance) a half-sized G5RV antenna. Others in the team erected the gazebo operating tent and assembled the radio kit.

Below: Chris G7LWV tries his luck.



Then Geoff G8TEC had a go, all with varying success.



The radio kit consisted of my usual Yaesu (FT-840) with tuner for 80/40/20m and the FT-897 for 2m. We were up and running with our first QSO with GB2DWM Duloe Mill at St Neots by 0900 GMT on 80. Radio conditions were not good. We tried 80/40/20m to try and find stations to work.

Norman G4BPN from Hythe came over and admired the setup. We had our club sign hung above the tent, but it failed to bring us many QSOs from the outside.....

....world To the rear of the tent we had teas & coffees as required.



Below: I obviously talked too much, looks as if I was making a point to myself whilst the Windmill looked on placidly. There was not enough wind to turn the sails and even my hot-air was not enough to stir it into action.



Because of the lack of QSOs there was always a question over the efficiency of the aerial system, so I changed the aerial from

the ½ G5RV to an Off Centre Fed Dipole but still only a few QSOs. Later on Sunday the aerial Doctors arrived and did a lot of testing.



Above Alan G8IPQ & Duncan G3RQF are checking the results of the analyser. They agreed the aerials were crap and that was where the problem probably lay.

In summary, we made a total of 41 QSOs over the weekend split between 80/40/20 & 2m but the conditions were against us and, as now decided, the aerials were not up to scratch.

Time to build a W3DZZ!

Thanks to the people of the Mill for being our hosts, also to Geoff G8TEC, Chris G7LWV, Quintin M1ENU, Duncan G3RQF, Paul G6MCX, Ted G0BHK, Bob 2E0CZK and Andy G4JNT for all their help and to Keith G7NKZ for calling in and having a chat.

Thanks to Ted G0BHK for all of the pictures without which this would be a very lean report!

We have been invited back again next year by the Mill people, so we must have behaved ourselves!

Hope I haven't forgotten anyone....

Minutes of the Itchen Valley Amateur Radio Club AGM held at the Village Hall, Otterbourne on Friday 23rd March 2018

The Annual General Meeting opened at 20.00

1. Apologies

17 Members were present, as noted in the Attendance Register.

Apologies for absence had been received from Brian Jones G0UKB, Liz Jones M0ACL, Geoff Morgan G3ROG and Richard Harris G3OTK.

Our Chairman Duncan Keith G3RQF took the Chair.

2. Minutes of the AGM held on 24th March 2017

These Minutes were not written up by the previous Secretary.

Ray Hills G3HRH proposed we move on. Chairman agreed.

3. Matters arising from those Minutes

None.

4. Chairman's Report

The Chairman's Report was submitted as part of the Annual Report. Duncan G3RQF thanked the Committee for all their support.

- Ted G0BHK for putting together the excellent Annual Report. Chairman thanked Ted for the years of taking on the Treasurer's role.
- Thanks were given to Paul Wilton M1CNK for organising the Silent Key sale which had raised a considerable amount of money for Club funds.
- The Loop Amplifier project generated much interest and activity. Thanks must go to Paul M1CNk, Raymond 2E0DHG, Andy G4JNT and Glyn M0XGT for developing such a successful project.

Finally thanked the Club members for making it a very interesting year.

Proposed by Colin North G4GBP
Seconded by Ray Hills G3HRH

5. Treasurer's Report

The Treasurer's Report was submitted as part of the Annual Report. After explaining each of the entries for both income and expenditure, Ted G0BHK highlighted that the Club showed an excess of £223.70 at year end.

Subscription income was down, and so was raffle income, Donations were down, but SK sales to our members made a good income for the Club.

Our main expense was the rent for our 23 meetings. Insurance cover stayed much the same.

Only one Field Day showed an excess..

Ted thanked

- Paul G6MCX for the provision of tea/coffee etc. from his own pocket.
- The independent financial examiners for an efficient job.

Ted has been responsible for putting together the Annual Report for many years. The 2017/2018 report will be available from the IVARC web pages as usual.

Proposed by Quintin Gee M1ENU
Seconded by Colin North G4GBP

5.1 Membership Subscriptions for 2017/18

A membership subscription increase was proposed for the coming year.

From £20 to £25.

Proposed by Graham King G3XSD
Seconded by Ray Hills G3HRH

Approved unanimously.

Annual Subscriptions are now due and Ted would be happy to accept cash, cheque, or bank transfer.

6. Membership Report

Ted G0BHK stated that in the past year we had lost one member, Vic G3NVB. We have 28 Club members.

7. Field Events Report

No reports were submitted for any of the 3 field days the Club held. Chairman asked for those in charge for this year to make a report just after the event, whilst still fresh in their mind.

8. Secretary's Report

The Secretary's Report was submitted as part of the Annual Report, listing all the events that had been undertaken

Special thanks went to Rhodri M0RHO from Waterside Club for his talk on 10th November about 'Green Radios' followed by Colin G4GBP 24th November on his report back on the IOTA Lundy Expedition.

Special thanks was also given by Paul G6MCX for the Loop RX Antennas project, main players Andy, Paul, Glyn and Raymond.

Proposed by Paul Wilton M1CNK
Seconded by Ted Stiles G0BHK

9. Election of President

Ray Hills was nominated by Paul Garland G6MCX and Seconded by Graham King G3XSD.

Approved unanimously.

10. Election of the Committee for 2017/2018

The President chaired the meeting. He began by thanking Ted G0BHK for his sterling work for the many years as Treasurer. He also applauded Ted for travelling the long distance (Rustington near Littlehampton) from where he attends all our meetings. The following members made themselves available for the Committee.

Paul Garland G6MCX
Duncan Keith G3RQF
Ken Hastie G4DKH
Colin North G4GBP

Duncan Keith was voted in as Chairman. Paul Garland agreed to take on the Secretary's role. Ken Hastie agreed to take on the Treasurer's role. Colin North agreed to take on Club communications (web site calendar/RSGB updates etc.)

Proposed by Mike Williams G0WIL
Seconded by Paul Wilton M1CNK

Approved unanimously

With the meeting's approval, Duncan G3RQF assumed the Chair.

11. Any other Business as Notified to the Secretary.

None.

11.1 Presentation of Awards

Paul Wilton M1CNK was awarded Clubman of the Year and a £25 voucher.



Paul M1CNK receives his award

Peter G4EOW was awarded the DX Achievement trophy and a £25 voucher.

Three people were also recognised for their contributions to the Loop RX Antenna project, Andy G4JNT, Glyn M0XGT and Raymond 2E0DHG each received £15 vouchers.



Andy G4JNT receives his award



Glyn M0XGT receives his award

11.2 Appointment of Financial Examiners for 2017/18

Independent financial examiners were agreed as Quintin Gee M1ENU and Paul Wilton M1CNK.

The Chairman closed the meeting at 21.30.

IVARC Membership 2018 / 2019

| Callsign | Name | Surname |
|----------|---------|----------|
| 2E0HAI | Will | Ettle |
| G0BHK | Ted | Stiles |
| G0UKB | Brian | Jones |
| G0WIL | Mike | Williams |
| G0VNI | Sheila | Williams |
| G3HRH | Ray | Hills |
| G3OGY | Stan | Andrews |
| G3OTK | Richard | Harris |
| G3ROG | Geoff | Morgan |
| G3RQF | Duncan | Keith |
| G3XSD | Graham | King |
| G4DKH | Ken | Hastie |
| G4EOW | Peter | Baxter |
| G4GBP | Colin | North |
| G4JNT | Andy | Talbot |
| G4YUP | Peter | Thurlow |
| G6MCX | Paul | Garland |
| G7LWV | Chris | Ash |
| G8IPQ | Alan | Badcock |
| G8TEC | Geoff | Cook |
| M0ACL | Liz | Jones |
| M0IKT | Dave | Capstick |
| M0XGT | Glyn | Thomas |
| M1CNK | Paul | Wilton |
| M1ENU | Quintin | Gee |

25 Members



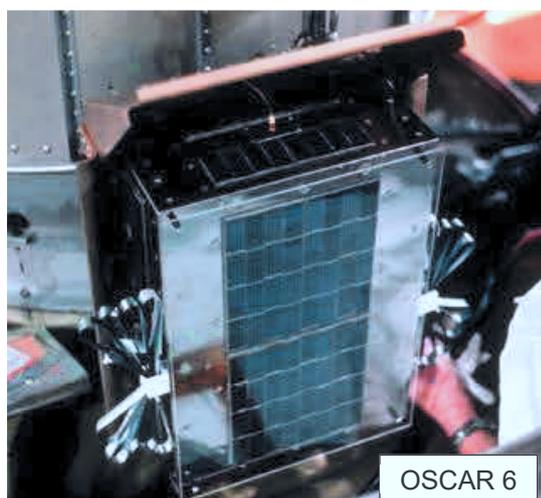
Remembering OSCARs 6 and 7

Richard Harris G3OTK

As many members of IVARC will recall, Sputnik 1 was launched in 1957. Yet only four years later on 12 December 1961 the first Amateur Radio satellite, OSCAR 1, was launched from Vandenberg AFB in California. It was also part of the first ever multiple satellite launch. OSCAR 1 operated as a beacon, transmitting on 144.983MHz with a power of 140mW. It re-entered 22 days later



Over the next nine years four more amateur radio satellites were launched including two that were repeaters, one of which (OSCAR 4) was intended for geosynchronous orbit but ended up in a highly elliptical orbit.



On 15 October 1972 OSCAR 6 was launched as a secondary payload to the NOAA-1 satellite. OSCAR 6 was a linear repeater, re-transmitting the top 100kHz of the 2m band at the top end of the 10m band.

At that time I was living in Wells in Somerset and with my friend Jack, G3PKS, we decided to see if we could make some contacts through this satellite. Jack had a Heathkit HW101 HF transceiver, which had adequate 10m receive performance, and he also had a low power 2m transmit capability.

The maximum recommended transmitting ERP was 100W. Being a linear repeater, excessive transmitting ERP could “capture” the satellite receiver, forcing it to reduce its gain to the detriment of other users. I had a 2m beam with a gain of 10dB and so we needed 10W of RF. A quick look through our junk boxes and we found enough bits to make an outboard PA using a QQV03/10, a VHF double tetrode. Several evenings of metal bashing and wiring and we were good to go.

Operating /A from the Jack’s QTH, I heard my own CW signal returned from the satellite for the first time on 23 July 1973 and I made my first contact via OSCAR 6 three days later when I worked DM2DIN during orbit number 3,557. My second contact a few days later was with W1JSM. Having got the hang of operating, CW contacts came thick and fast.

I had a “G8” friend in Taunton who worked for the local electricity board and which had just updated its VHF radio communications equipment. He managed to get hold of an old transmitter – two 19 inch rack units – and passed it to me. It was quite

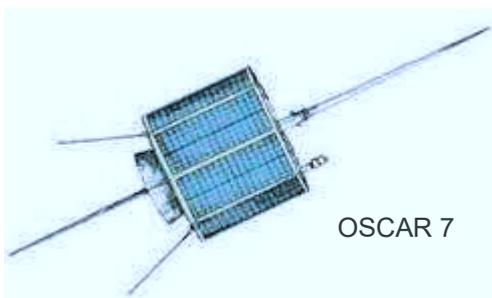
easy to re-tune it to the top end of 2m and the output power was about 50W. At about the same time, I bought an Eddystone EA12 (an amateur bands only receiver) from a local SWL. I now had enough equipment to operate from home.



I was sharing a flat in the “Judge’s Lodgings” in Wells – we had to move out when the Assizes were held and the Judge and entourage came to stay. I made a 2m crossed-dipole from an old Band 1 “X” TV aerial, fixed it to the end of a broom stick and wedged it at the bottom of the sash-cord window. For receive, I hung a 10m dipole between two windows. My first QSO with this set up was with DL6EZA. There followed page after page in my log book of CW QSOs via OSCAR 6. I still have cassette tape recordings of QSOs and these have very obvious doppler shift.

All this happened a long time ago and I can’t remember all the details about how we predicted orbits. There was no internet in those days! I do remember that there was a ten minute difference between orbits every other day, so once we had heard the satellite on two successive days, we knew the approximate timings of future orbits. The satellite was in a “sun-synchronous” orbit at about 1,450km and usable orbits were in the mornings and evenings irrespective of the time of year.

The next notable event was the launch of OSCAR 7 on 15 November 1974. This had two repeaters, one of which used the same frequencies as OSCAR 6. My first QSO was with PA0LQ on orbit 21 but I found that the satellite was not such a good repeater as OSCAR 6.



OSCAR 7 operated until 1981 when it became silent because of battery problems. However, it was heard again in 2002 - probably a battery cell had become open-circuit and it was now operating from its solar cells. According to the N2YO database, it is still active.

I recall that OSCAR 7 used COS/MOS (later known as CMOS) logic donated by RCA. The company wanted to find out how well this type of logic survived in the radiation environment of low Earth orbit. As it happens, the ICs survived much longer than RCA, which was bought by GE in 1986 and parts of the company were then sold or liquidated. RCA now exists only as a brand name but the ICs in OSCAR 7 soldier on.

The newest amateur radio satellite is OSCAR 100 consisting of two transponders aboard the Es’hail geostationary broadcast satellite (see January’s Rad Com). We can at last communicate via a geostationary satellite 54 years after the previous attempt to place an amateur radio satellite in such an orbit.

VHF National Field Day 2018

by Paul M1CNK



VHF NFD took place on 7th and 8th July 2018. As has been the pattern for the last couple of years, the weather was good. We followed the approach adapted in 2017 of operating from vehicles. Paul M1CNK was able to borrow a trials van from work again and this was the base for the 2m station which comprised of Brian's G0UKB K3S with a 100w PA and a panadapter. Peter, G4YUP provided the 6m and 4m stations using his IC7300. Paul G6MCX provided the 70cm station, but a series of equipment issues led to Alan G8IPQ stepping into the breach and setting up the station from his car.



Thus the 70cm station ended up being an F857D plus an *-*"armstrong rotator". Given the lack of any accurate bearing information, Alan did really well. Finally Ray G3HRH supplied the 23cm station based on an SG Labs transverter plus FT726. We were joined by a number of other operators including Stan

G3OGY, Chris G7LWV, Richard G3OTK, Brian G0UKB, Liz M0ACL and Geoff G8TEC.

Band conditions were nothing special but there was some DX around at times. For the first time in a number of years, there was some Sporadic E on 6m – but only for one QSO!



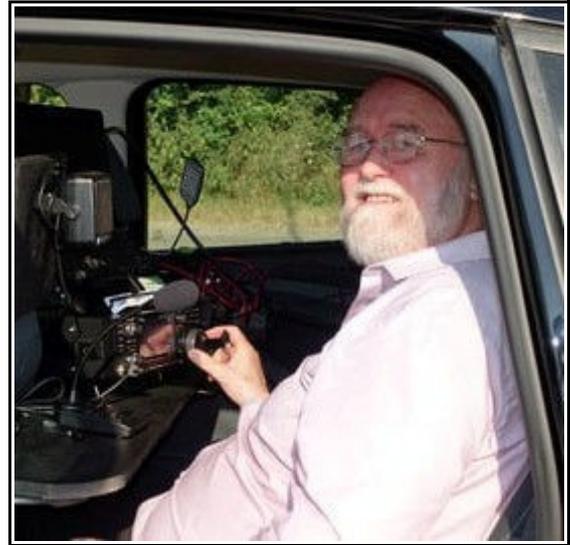
As is the norm with VHF contesting, it was generally pretty relaxed, so a good gentle introduction into the contesting scheme.

As usual, a few lessons learnt – the main ones being having some club long mains cables, making sure that the mast is pinned before luffing it over and checking out kit before deploying.



Overall the Club came 12th out of 14 – last year it was 9th out of 16. Not bad given that we stopped mid evening. **Results >>>>>**

VHF NFD cont'd....

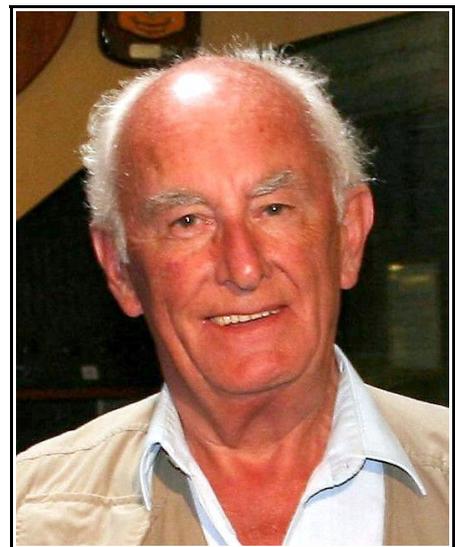


In terms of results, the following table compares 2018 and 2017 (in brackets)

| Band | QSOs | Raw Score | Normalised Score | ODX/km | Position | Error rate % |
|------|-----------|-----------------|------------------|------------|---------------|--------------|
| 6m | 24 (40) | 5,640 (5,634) | 139 (185) | 1579 (465) | 13/18 (15/22) | 3.85 (0) |
| 4m | 36 (30) | 7,285 (5,321) | 182 (205) | 658 (479) | 13/13 (16/18) | 2.56 (3.03) |
| 2m | 130 (129) | 27,282 (24,722) | 250 (285) | 799 (799) | 10/18 (14/21) | 6.47 (7.19) |
| 70cm | 12 (21) | 1,695 (3,185) | 55 (163) | 458 (407) | 6/9 (4/10) | 20 (12.5) |
| 23cm | 6 (13) | 389 (2,494) | 8 (13) | 123 (465) | 4/4 (6/6) | 14.3 (13.3) |

Brian Harrison M0WSR

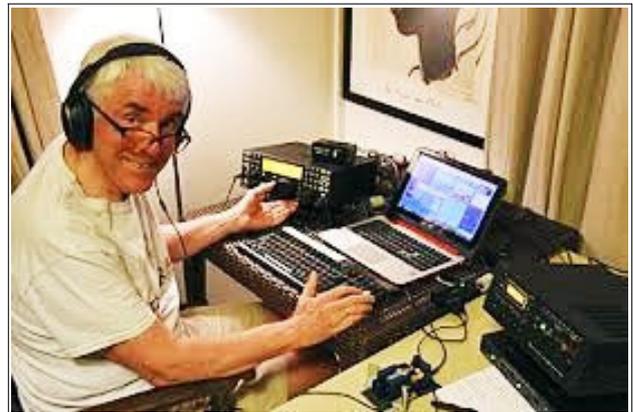
We were recently very sad to hear that ex-Club Chairman, Brian Harrison M0WSR became a silent key on 22nd February. Brian had first joined the Club in 2003 and soon volunteered his services on the Club Committee taking on the role of Vice-Chairman. He took over as Chairman from Peter Baxter in 2005, by which time he was one of the Club stalwarts. Unfortunately his health gradually deteriorated and he had to step down in 2007. As well as Amateur Radio Brian was very involved with wildlife sound recording, particularly of bird-songs and calls, and he was also involved with the Bat Conservation Trust.





The RSGB created the **'British Empire Radio Union'** (BERU) in the late 1920s to support radio amateurs in the Empire. In 1930 a New Zealand radio amateur suggested that a week should be set aside as an **'Empire Radio Week'** which should be held in February 1931 – this was the very first 'BERU Contest,' and all those countries that were part of the British Empire were invited to participate. 'British Empire Radio Week' later morphed into the 24-hour British Empire Radio Union (BERU) contest in 1935, then in 1973 it was re-named the **'Commonwealth Contest.'** The event proved to be very popular and has been held annually ever since the idea was first conceived.

It is a CW only event using the non-WARC HF bands 80,40,20,15 and 10mtrs. It has always been a civilised event, most of the exchanges taking place at a relatively slow speed, and if you send slowly the chances are the other guy will respond in kind. The UK is always in demand as most of the players are DX, the majority being in Canada, Australasia and the Caribbean.



G3TXF operating as 3B8XF from Mauritius

The event is sometimes a tough one for UK operators, as the nearest call area we can contact is Gibraltar, followed by Malta, Cyprus and Canada. Originally UK stations could only contact stations outside the UK, but in 2018 the RSGB introduced 6 more regional HQ stations to 'level the field a bit.'



A number of IVARC members have been participating as teams for several years and a few seasons ago an experiment was tried where, as well as a team of regular skilled CW operators, the Club entered a team of operators who were not skilled at CW at all. The idea was to see if they could contest without needing to aurally copy morse, nor use a key or paddle, but just use a computer to both decode and send the morse.

<<<< – Team Itchen Valley in 2013

The operation was an enormous success and the two teams '**Team Itchen Valley Veterans**' consisting of four regular CW operators, and '**Team Itchen Valley Digi**' consisting of three members who were all using computers to send and decode, gained 13th and 16th position, respectively in the team results.

In 2018 the Club entered just a single team, the **IVARC Veterans**, consisting Ray G3HRH, Richard G3OTK (Captain), Geoff G3ROG, Graham G3XSD, and Colin G4GBP/p. As on some earlier occasions, Colin G4GBP/p was operating 'portable' from his canal boat, this time located about 15 miles North of Banbury.



Propagation conditions on this occasion were not ideal with all team members struggling to find stations they could work. Team captain, Richard, commented, '*Conditions were the worst BERU conditions that I have experienced, I assume because of being close to solar minimum and the effects of a minor solar storm. On Saturday the F2 critical frequency struggled to get above 3.5MHz.*' I managed 84 QSOs and claimed 1,800 points.'

So when it came to the publishing of the results we found the Itchen Valley veterans had come 12th out of the 13 team entries - we were the second highest scoring UK team entry (out of three), which we were happy with. The overall result was much as expected considering the poor propagation conditions we experienced in UK. In contrast the overall winning team entry (VK) Australia had scored almost 10 times as many points as us – but this is a contest that a UK team cannot win.



This year, 2019, the event will be held 9th and 10th March with an IVARC Veterans team consisting of Richard G3OTK (captain), Ray G3HRH, Graham G3XSD, Colin G4GBP and for the first time, Steve G8XEV. Geoff G3ROG will still be recovering from a hand operation but hopes to be able to send in a Checklog.

We wish them the Best of Luck !

