



OXTALES

Newsletter of the Oxley Region Amateur Radio Club Inc.
PO Box 712 Port Macquarie 2444

August 1994

Compiled by VK2AYD

PRESIDENT: David Smith VK2DAL 85.1004
VICE PRES.: Charles Edmondson VK2FSH 84.0495
TREASURER: Richard Court VK2CHC 86 1007
SECRETARY: David Pilley VK2AYD 85.2647

PRESIDENT'S REPORT

"First you forget names, then you forget faces, then you forget to pull your zipper up, then you forget to pull your zipper down". (Leo Rosenberg).

The above quotation reminds us that whether we like it or not, we are all getting older and therefore less active when it comes to club matters. Our future as a Club is tied to our ability to attract and keep younger members, and once attracted, to use them, thus making them think that in being a member they are in some way contributing.

You well may ask from where do we attract potential members? Members are drawn from many places including the following:

People like me who are already Amateurs who move into the area. The people are usually older and less likely to

take a really active part in the running of the club.

From schools, particularly the senior years. In order to tap this source, we must present ourselves and be seen as providing an interesting and varied programme.

From the general community. Many current Amateurs come from the ranks of, dare I say it, the CB fraternity. I have heard many Amateurs in general conversation on air rubbishing all CBers in general. This is not the way to attract people. All CB operators are not the "yobbo's" that you sometimes hear on the CB channels. Some are quite professional and have far better manners and operating techniques than some Amateurs who we have all heard.

There are, no doubt, many other areas from which to recruit prospective Club members, but in order to do so we must present our organisation as one which has something offer both technically and socially. As our Secretary would say, "to sell ourselves we must talk about ourselves". In other words, we must diversify our activities and more importantly publicise our club.

As you are aware, I have been asking for someone to take the position of Club Publicity Officer since January last. There have been no takers and our club is suffering accordingly.

At the monthly meeting held on the 8th of July, the meeting decided that a Field Day should be held in 1995. As you may recall earlier this year, a comment was made that the planning for the 1994 Field Day should have been commenced immediately after the 1993 one was concluded. This comment was made from the floor during the time when we were virtually pleading for someone to take the job of the 1994 Field Day Co-ordinator.

Now is the time to commence planning for the 1995 event. We MUST have a Co-ordinator and I am now calling for a volunteer to fill this position. There is also a need for other people to come forward to take charge of the various activities such as the flea market, trade exhibitors, fox hunts, club exhibits, (which we didn't have as such this year), catering, trophies, logistics, etc..

For those of you that have time hanging heavily on your hands, there is one other position which I feel could be of benefit to the club. As you would have noticed, there has been virtually nothing in the way of social activity this year. Would you like more in the way of BBQ's, Dinners, etc.. If so, what about someone offering to fill a position of Social Activities Director.

Maybe you have some ideas as to how we can get more out of our club. If so, come to a Friday night meeting and put them forward.

Speaking of Friday night meetings, the talks which we have been having have proved very successful as is shown by the attendance on those nights. I would like to thank all those who have taken the trouble to prepare and present these very interesting talks to us.

There is an old American Indian saying, "When you are born, you cried and the world rejoiced. Live your life in such a manner that when you die the world cries and you rejoice."

73's de VK2DAL

CLUB NETS

Where have you been ?



Every Wednesday evening
at 8 pm on
3597.5 kHz +/- QRM

Every Sunday morning
at 8 am on 146.7 mHz



Dates for your Diary

Please pencil these *FRIDAY NIGHTS* into your diary now.

AUGUST

Aug 19 Weather Satellites VK2XIQ

Aug 26 Free & Easy

Sept 2 Quarterly Meeting

Sept 9 Awards & Contests VK2AYD

SEPTEMBER

Sept 16 Free & Easy

Sept 23 SSTV - What you need

Sept 30 Power Supplies VK2FSH

Oct 7 *Monthly Meeting*

Oct 14 Free & Easy

KEMPSEY AMATEUR RADIO CLUB

Kempsey has recently formed their own Club, the initial meeting having been held on Saturday 9th July. At this stage they will only be holding meetings on a monthly basis. The Founding President and Secretary of the new club are as follows:

* President:

Andy Keir, VK2AAK (A member of our Club). Phone: 065-69 9441

* Secretary:

Ted Bastow, VK2WL,
1493 Armidale Rd, Corangula.
Phone: 065-61 7218

The Repeater Officer is Ray Wells.

The club meetings are being held at the Kempsey TAFE, corner of Sea and Dangar Streets, Kempsey, on a Saturday afternoon. At this stage on or about the 3rd Saturday of the month. Check with the Secretary for dates before attending.

We wish them well and look forward to hearing about their future programs.

A SHORTER HISTORY OF ELECTRICITY

VK2AYD (Author unknown)

The Greeks invented electricity. They did it by rubbing amber with fur cats. This made the amber attract small particles, and the cat's fur to stand on end. It was only natural really, as the cats did not care much for being rubbed with amber.

The Greeks did not do anything else about electricity, as they were busy at the time with a war; and the next to do anything was an Italian named Galvani.

Galvani found a way to make a frog's legs twitch by electricity. Neurotic frogs could twitch alright without Galvani, but nevertheless the discovery was important, and it led Volta to invent his cell.

Volta's cell was very useful and very popular, and he made a great deal of money out of it; hence the expression "Volk's Pile"

Volta also invented volts, which are things which push amps around the circuit. Actually amps were not invented until 50 years later, so the volts had to push around on their own for a bit. This gave rise to static electricity. Static electricity is very

interesting, but not very useful. It is used mostly for lightning.

After Volta, the electricity business became very brisk. Ampere invented amperes, Ohm invented ohms, Watt invented watts, Milly invented milliamps and Meg invented megohms, the latter showing the early influence of woman on electricity.

The turn of the century was now nigh. It turned after 1799, as predicted, and electricity went along at a great pace. Coulomb invented coulombs, Henry invented henries, Eddy invented eddy currents, Gause invented geese, Evershed invented Vignoles and Baden Powell invented Boy Scouts. At this stage electricity was getting along nicely when clerk Maxwell put the whole thing on a mathematical basis and took half the pleasure out of it.

The greatest inventor of all was Faraday. Faraday was sickly as a youth, but he got better, and invented electro-magnetic induction. This enabled electricity to be made in large pieces, and without it we should not have all the benefits of modern civilisation such as transistors, wireless sets, TV's and atom bombs. Faraday was a prolific inventor and experimenter, and some of his experiments are classics. He conducted the Ice Pail Experiment, the Butterfly Net Experiment and the Faraday Cage Experiment. He also experimented with electricity.

After Faraday, the electricity business flourished and it was not long before people started selling it for money. This took the other half of the pleasure out of it, and gave rise to a vast hierarchy now

under the control of administrators and policy makers. These are naturally of much more account than the old fashioned types who only made the electricity.

Nowadays there are two sorts of electricity - DC and AC. DC is a bit old fashioned and goes the same way all the time, but AC come and goes. It goes mostly in the morning about 8 o'clock, just when you need it most!

The supply keeps getting better, but the demand gets better as well, so nothing happens except the cost to buy it from these administrators rises rapidly. This is called a vicious circle. Vicious circles are very dangerous and turn into inflationary spirals if not carefully handled.

However, this is called Economics. Economics is a very difficult subject, and is different altogether from electricity.



I understand from Kevin VK4SP, that over 15 members have purchased his small JVFax converters. For those of you that are licensed to transmit SSTV, if you return the Receive Only version that you purchased (assuming you haven't cannibalised it and you hold a transmitting licence), Kevin will replace it with the Receive/Transmit version.

At the time of writing this the only two stations heard locally that are sending SSTV on 14,230 kHz is VK2WST and VK2AYD. If you are interested in looking at the weather pictures here are a few frequencies that may be useful to you.

AXM Melbourne - 2,628 - 5,100 - 11,030
- 13,920

JMH Tokyo - 7,305 - 9,970 - 13,597

JMJ Tokyo - 5,405 - 9,438 - 14,692

NMC S.Frisco - 6,271 - 8,384 - 16,691

KVM Honolulu - 9,982 - 11,090 - 16,135

ZKLF Well. NZ - 5,807 - 9,459 - 13,550 -
16,340

Some of these transmit excellent satellite imagery. For example KVM Honolulu transmits a full disk i.r. Geo-sat picture at 12.00 utc (10 pm est) and at 13.00 utc (11 pm est) JMH Tokyo sends a similar picture.
VK2AYD



Some of us are already into down-loading weather pictures from the LEO satellites and to my knowledge these are VK2XIQ, VK2ZIS, VK2WST and VK2AYD. (There may be others, if so please let me know).

Some of you purchased the Sci-Sat 137 mHz receiver for down loading LEO satellites. Some of you may be contemplating it, so here is a little of what you need.

(a) A computer, DOS compatible and a minimum of 640 K of RAM onboard.

(b) Suitable compatible software.

(c) A receiver that has a broad band IF (50 KHz) and capable of receiving on 137 MHz.

(d) A demodulator interface and A/D converter.

(e) A good antenna system. Remember the satellite will traverse the sky 180

degrees if it passes directly overhead. It does not have to be a beam, a "J" pole is sufficient.

(f) A mast-head amplifier is also useful, but not necessary if you have a good reception area.

What Software do you need ?

Many of you already have this, its called JV FAX. I wonder how many of you have sent a few dollars to the master mind who wrote that programme. The address and information is in the Document File. (Perhaps we should take up a collection one club night and send it to him from the club. Sec).

There are numerous programs available and these are advertised in ARA and WIA AR. M. Delahunty in Queensland offers quite a number of weather fax programs. Price ranges from \$35 to \$75.

From the USA you can obtain information from AMSAT, AMSOFT, Buckmaster Publishing, Renaissance Software and Myers Communication who do the OSCAR reports. In Australia we have our own AMSAT group and membership is available to all.

Tom Moffat, VK7TM (Hightech Tasmania) also has software as well as interface equipment. Software plus interface is \$99.

Where can you buy a receiver ?

SciSat Products, PO Box 222, Esk Q 4312, offer a complete receiver or a kit. (The kit costs around \$150 and requires alignment equipment such as a Signal Generator and a Scope).

How do you know where the satellites are?

Orbital elements are transmitted from WIAW (ARRL) every Tuesday and Saturday at 18.30 EST (USA) on RTTY and AMTOR FEC. Locally we can down-load them from the VK2ATM-1 BBS on 2m PACKET. The orbital information is called Keplerian elements (in short KEPS).

There are two formats of KEPS. AMSAT and NASA. A typical AMSAT KEPS would read:

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Satellite: AO-16
Object number: 20439
Epoch Time: 93 200.2634796
Epoch Rev: 18202
Mean Anomaly: 272.16490
Mean Motion: 14.29841825
Inclination: 98.62100
Eccentricity: 0.00124870
Arg Perigee: 88.09490
RAAN: 285.09490
Decay: 4.70000e007
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The NASA format is just a two-line list of numbers which the software automatically decodes.

If you are using a beam, before you can copy a satellite, you have to know its location, its elevation and azimuth in relation to your station.

For those who don't know, the ELEVATION is its vertical position above your local horizon in degrees. At 1 degree its grazing your horizon, at 90 degrees its directly overhead. AZIMUTH refers to

the horizontal position of the satellite relative to your station. 0 degrees is due north.

You may wonder how information sent from the USA is relative to where we live. Have no fears, once you've told the software your Lat. and Lon. and time relative to UTC, it does the rest.

The other side of Satellite communication is using them as repeaters or talking to the Astronauts. An interesting piece of trivia is that Commander Ken Cameron, KB5AWP, successfully encouraged his entire shuttle crew on two missions to earn Amateur Radio Licences. The first space born Radio Amateur was Owen Garriot, W5LFL, who in November 1983 went into orbit aboard the space shuttle "Columbia". He operated a 2-metre hand-held transceiver with an antenna in the window of the ships' cabin. Tony England, W0ORE flew the second mission aboard "Challenger".

There are also quite a few satellites that have dedicated two-way Amateur communications with uplinks in the 21 and 144 MHz bands and down links in the 28, 144 and 440 MHz bands.

acknowledgment to Nov 93 QST.

NOBEL PRIZE WINNERS QST DEC93

In 1993 the Nobel Prize in physics was awarded to Dr. Joseph Taylor K1JT and Dr. Russell Hulse, ex WB2LAV for their exploits in radioastronomy and their discovery of a binary pulsar. What's a binary pulsar? Maybe one of our members can tell us....!



PACKET RACKET

WORMHOLES!

Yes its for real! There are quite a few of these and quite a few of you are already using them. A "Wormhole" is a gateway between the Amateur Packet system and the "Internet" (via the AARNET, Australian Academic Research Network). This is an experimental electronic network which links universities and government departments around the world. In Sydney, both Macquarie Uni and the CSIRO Lindfield have fast links to the USA UK and Europe. Newcastle and Armidale have similar facilities.

The April-June AAPRA News Letter (available at the Club) has full information on how to access these holes. It also has a list of all the ROSE switches for VK2 and VK6.

At the time of going to press with this N.L., Arthur, VK2ATM, advised he had still not got the additional 147 mHz link to his BBS operational.

FOR SALE & WANTED

WANTED:

Packet Radio Modem VHF or HF to suit Commodore 64.

Please ring Horst on 85 5992

CW Filter YG-3395C for TS-520S

Please call Cliff Cooper, VK2KVR on 83 4630

FOR SALE:

TS-520S with remote VFO. \$550

Call Paul, VK2UPR on 84 1830

Computer MITAC MPC 2000V/VE

(IBM Compat) 80286 CPU

Landmark 22 mHz 3.5 & 5.25

drives plus 40 Meg H.D. VGA

Compal Colour monitor. Mouse, etc. \$800

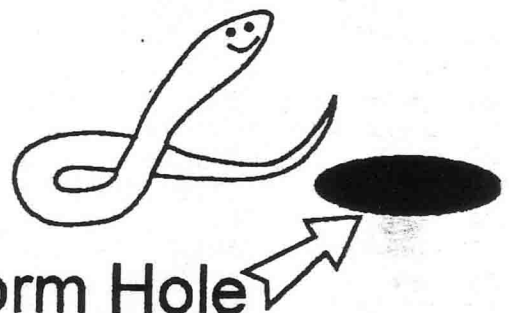
Call David VK2AYD on 85 2647

SWR-435 Oskerblock UHF

SWR/Power meter

(50 Ohms 5, 25, 125W) \$85

Call Larry VK2CLL on 87 1155



Worm Hole

ORARC Inc. Membership List July 30, 1994

1	PETER	ALEXANDER	VK2PA	ROLLANDS PLAINS	065 85 8254
2	KEN	BECK	VK4WKB	CALOUNDRA	074 91 5798
3	COLIN	BELLINGER	VK2GMD	PORT MACQUARIE	065 82 3803
4	BOB	BLYTH	VK2XIQ	TELEGRAPH POINT	
5	PHILLIP	BOWMAN		VIA JOHNS RIVER	065 56 9664
6	MARK	BRENTON	VK2XFK	FREDRICKTON	065 63 1663
7	KEN	BROWN	VK2AJJ	PORT MACQUARIE	065 83 1738
8	BILL	CAVANAGH	VK2WC	WAUCHOPE	065 85 2130
9	CLIFF	COOPER	VK2KVR	PORT MACQUARIE	065 83 4630
10	KEVIN	COULTER	VK2MAM	PORT MACQUARIE	065 83 8325
11	RICHARD	COURT	VK2CHC	WAUCHOPE	065 86 1007
12	PETER	COX	VK2TCI	PORT MACQUARIE	065 81 1236
13	IAN	DALRYMPLE	VK2XU	PORT MACQUARIE	065 84 9922
14	JIM	DANIELS		PORT MACQUARIE	065 83 1933
15	MAX	DATSON	VK2GE	LAKE CATHIE	065 85 5732
16	TRACY	DIGNUM	VK2GTM	HERONS CREEK	065 85 7061
17	CHARLES	EDMONDSON	VK2FSH	PORT MACQUARIE	065 84 0495
18	BADEN	GLEESON		BANORA POINT	075 24 8577
19	LUKE	GOW	VK2EQ	CUNDLETOWN	065 53 9933
20	RODNEY	GOW	VK2NO	CUNDLETOWN	065 53 9933
21	LEWIS	GREEN	VK2AG	PORT MACQUARIE	065 84 9162
22	GRAEME	GREENWOOD	VK2ZIS	PORT MACQUARIE	065 83 4684
23	SAM	GRIFFITHS		TAREE	065 52 3149
24	KEITH	HANLON		PORT MACQUARIE	
25	PETER	HILL	VK2BZA	LAKE CATHIE	065 85 5349
26	SNOW	HODDER	VK2DV	PORT MACQUARIE	065 83 7095
27	WILL	JAMIESON	VK2XXU	DUNBOGAN	065 59 8622
28	JOHN	JONES	VK2DX	JOHNS RIVER	065 56 5038
29	ANDY	KEIR	VK2AAK	BARRAGANYATTI	
30	HORST	KOPPEL		LAKE CATHIE	065 85 5992
31	PETER	KUCERA	VK2MPK	WAUCHOPE	065 85 3406
32	ADRIAN	LEVI		WAUCHOPE	065 85 2040
33	JACK	LEEDS	VK2KN	PORT MACQUARIE	065 83 2496
34	LARRY	LINDSAY	VK2CLL	BAGNOO	065 87 1155
35	TONY	LONSDALE	VK2DHU	PORT MACQUARIE	065 84 0345
36	HENRY	LUNDELL	VK2ZHE	PORT MACQUARIE	
37	KEITH	LUTTON	VK2KDL	TELEGRAPH POINT	065 85 0321
38	ALLAN	MADIGAN		WAUCHOPE	065 85 2043
39	JOHN	McDONAGH	VK2VY	PORT MACQUARIE	065 82 0020
40	DOUG	McDONALD	VK2EUM	PORT MACQUARIE	065 83 6157
41	JIM	McINTYRE	VK2CJM	PORT MACQUARIE	065 83 5696
42	JOHN	McLEAN	VK2KCE	PORT MACQUARIE	065 84 1998
43	LEO	McPHERSON	VK2CLM	PORT MACQUARIE	065 82 3183
44	TERRY	MEEHAN	VK2KL	PORT MACQUARIE	065 83 2737
45	ARTHUR	MONCK	VK2ATM	PORT MACQUARIE	065 83 1311
46	RAY	MULLINS	VK2WRM	PORT MACQUARIE	065 81 0685
47	LAURIE	NEWHAM	VK2ELN	PORT MACQUAIRE	065 83 3981
48	LESTER	O'CONNELL	VK2BFP	PORT MACQUARIE	065 83 4274
49	ARTHUR	PERRY		PORT MACQUARIE	065 82 3960
50	DAVID	PILLEY	VK2AYD	KING CREEK	065 85 2647
51	PAUL	ROMAINE	VK2UPR	PORT MACQUARIE	065 84 1830
52	BILL	SINCLAIR	VK2ZCV	PORT MACQUARIE	065 82 0329
53	GERRY	SLADE		PORT MACQUARIE	
54	LEWIS	SMITH	VK2LS	PORT MACQUARIE	065 82 0424
55	DAVID	SMITH	VK2DAL	WAUCHOPE	065 85 1004
56	BILL	STOFMEEL	VK2WST	BONNY HILLS	065 84 8104
57	TREVOR	THATCHER	VK2TT	WAUCHOPE	065 85 2278
58	COL	TERRY	VK2VQT	PORT MACQUARIE	065 83 5268
59	NEIL	TROTTER	VK2NNT	LAKE CATHIE	065 85 4430
60	PAUL	WEBSTER	VK2BZC	PORT MACQUARIE	065 82 3377
61	RONALD	WYLES		PORT MACQUARIE	065 83 5295