

March 2010

Volume 38 - Number 03



Official Newsletter of the

CENTRAL COAST AMATEUR RADIO CLUB Inc...

Postal address: PO Box 238 Gosford NSW 2250

Clubrooms & Station: Dandaloo Street, KARIONG NSW Phone: 02 43402500

Club Call-signs: VK2AFY, VK2EH

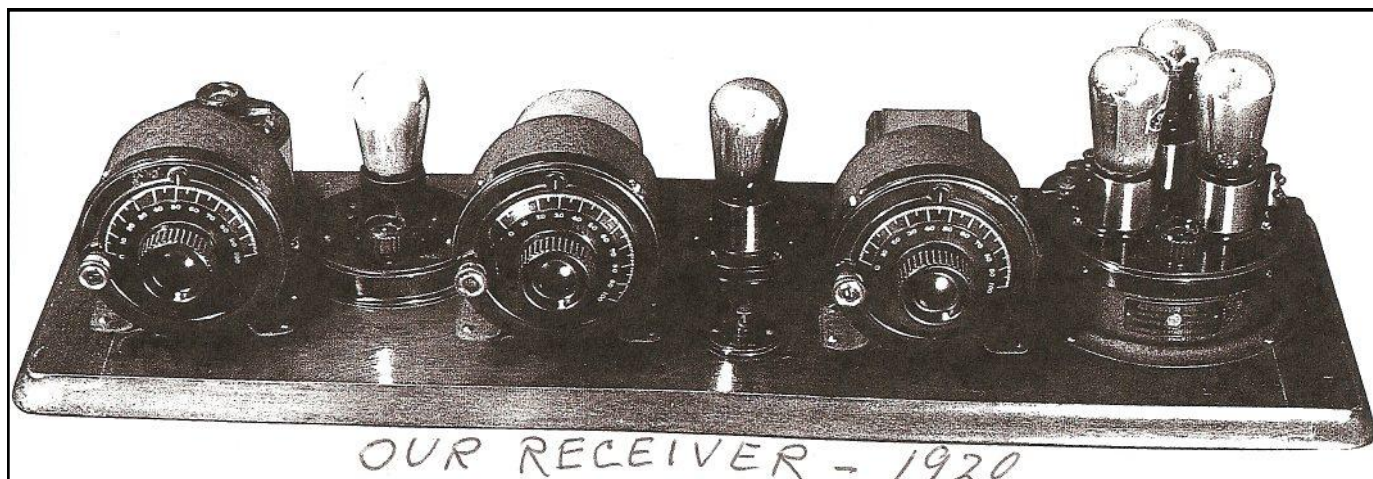
Repeaters: VHF - 146.725 CTCSS 91.5 Hz VK2RAG
UHF - 438.075 CTCSS 91.5 Hz (IRLP node: 6060) VK2RAG
UHF - 439.300 Voice Multimode VK2RTG

Morse (CW): 439.725

APRS: 145.175 - VK2AFY, VK2RAG

D-Star: 146.63750 MHz -0.600 Offset (Usually "C" Node) VK2RAG
438.32500 MHz -5.400 Offset (Usually "B" Node) VK2RAG
Gateway Registration URL <https://122.252.16.155/Dstar.do>

Home Page: www.ccarc.org.au



A 3-stage tuned RF breadboard receiver circa 1920. See article on page 6 "A Brief History of American Radio"

Smoke Signals, Published by:
 Central Coast Amateur Radio Club Inc.
 PO Box 238 Gosford NSW 2250
 Phone: +61 (02) 4340 2500
 Dandaloo St. Kariong
 Editor: Leonie VK2LCP

Contributions

Information to be included in "Smoke Signals" must be submitted to the Editor by the second week in the month preceding publication. Information must be in writing, and in MS-WORD or RTF format. You can hand the information to the Editor at the club meetings or via email (preferred method) to smokesignalseditor@fsparker.com.au.

No information can be taken via telephone.

Central Coast Amateur Radio Club is affiliated with the Wireless Institute of Australia and Amateur Radio NSW.

Management Committee 2009-2010

Executive

President	Col	VK2ZCO	4324 5576
		colhodg@comcen.com.au	
Vice President	Geoff	VK2ZC	4362 9444
		geoff.parker@gsparker.com	
Secretary	Greg	VK2GRJ	4329 0614
		greg.james@internode.on.net	
Treasurer	Ray	VK2HAY	4325 2182
		rooby@bigpond.com	

Committee

Bruce	VK2ZAD	John	VK2DBC
Don	VK2ZCZ	Leon	VK2BLV
Fred	VK2FSP	Doug	VK2FDCC
Bob	VK2ZAR	Chris	VK2LOB
Greg	VK2NGE	Victor	VK2BTV

Sub Committee Chairpersons

Amateur Television	Victor	VK2BTV
Callbacks	Fred	VK2FSP
Constitution	John	VK2DBC
Deceased Estate	Bruce	VK2ZAD
D-Star Facilitator	Chris	VK2LOB
Education	Chris	VK2LOB
Field Day	Col	VK2ZCO
Lecture Co-ordinator	Fred	VK2FSP
Library	Victor	VK2BTV
Membership	Fred	VK2FSP
Project & Development	Bruce	VK2ZAD
Property	Ray	VK2HAY
Publicity	Doug	VK2FDCC
Repeater	Don	VK2ZCZ
Smoke Signals	Leonie	VK2LCP
Social Co-ordinator	Doug	VK2FDCC
Station Officer	Leon	VK2BLV
WICEN Liaison	Bob	VK2ZAR
Webmaster	Greg	VK2NGE

Repeaters	VK2RAG (Site: Somersby. 300 Metres ASL)
VHF (time out 3 Min)	146.725 MHz - CTCSS 91.5 Hz
UHF (time out 3 Min)	438.075 MHz- CTCSS 91.5 Hz
	IRLP 6060
Morse Practice	439.725 MHz- CTCSS 91.5 Hz
Packet CCOAST	44.136.16.14
1200 bps	439.150/434.150 MHz Duplex
APRS	145.175MHz
Non Linked UHF voice	439.950 (under construction)
D-Star	146.6375 MHz (Usually "C" Node)
	438.3250 MHz (Usually "B" Node)
Gateway Registration	https://122.252.16.155/Dstar.do
Repeaters	VK2RTG (site: KARIONG, 150 Metres ASL)
ATV	
Vision Carrier	In 1250 MHz Out 444.250 MHz
Sound Carrier	In 6.8 MHz +/- 75 KHz
	Out 449.75 MHz
	Polarity Horizontal
Multimode	439.300/434.300 MHz Duplex,

VK2AFY (site: KARIONG)

APRS 145.175 MHz

Senior Members

Bill Aulsebrook	VK2SUB	Fred Parker	VK2FSP
Paul Clutter	VK2SPC	Leonie Parker	VK2LCP
Ursula Barker	XYL-VK2BTV	Ray Richards	VK2BRR
Ed Dyring	VK2ED		
Dot Crutcher	XYL-VK2ZCZ	Dot Skinner	XYL-VK2ARI
Bruce Holland	V2ZAD	Ivan Skinner	VK2ARI
Dick Maitland	VK2BBK	Alan Swan	
Kevin Outlen	VK2ANT	Kevan Weaber	VK2AJV

Honorary Members

Tom Burt	VK2TB	Greg James	VK2GRJ
Ken Kirkby	VK2XAL	Peter Mudie	VK2XZP

Life Members

George Collie	VK2ZDC	Ray Tooby	VK2HAY
Ross Mudie	VK2ZRQ	Col Hodgson	VK2ZCO
Don Crutcher	VK2ZCZ	Bob Ridgley	VK2ZAR
Victor Barker	VK2BTV	Leon Brett	VK2BLV

Disclaimer

Opinions expressed in Smoke Signals are those of the contributors and do not necessarily coincide with those of the .Executive, Committee or the general membership.

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Overheard at a recent Field Day Committee Meeting.

.....Is Anybody listening.

Once upon a time, there were four people named Everybody, Somebody, Nobody, and Anybody.

When there was an important job to be done,

Everybody was sure that Somebody would do it.

When Nobody did it, everybody got angry because it was Everybody's job.

Everybody thought that Somebody would do it, but Nobody realised that Nobody would do it.

So it ended up that Everybody blamed Somebody when Nobody did what Anybody could have done in the first place.

(Surely this is not the C.C.A.R.C. or is it) ?

~~~~~  
**Coming CCARC Events**

**Saturday 13 February 2010** — WICEN Central Coast Meeting 1400 hrs at Club Rooms

**NOTE – There will NOT be a lecture meeting on Friday 19 February 2010**

**Friday 26 February 2010** — Field Day set up preparation meeting 1930 hrs at Club Rooms

**Saturday 27 February 2010** — Field Day set up 1400 hrs at Wyong Bowling Club Panonia Rd Wyong

**Saturday 27 February 2010** — Field Day Dinner 1800 hrs at Wyong Bowling Club Panonia Rd Wyong

**Sunday 28 February 2010** — Field Day 0600 hrs Wyong Race Course Howarth Street, Wyong

~~~~~  
 The next Business meeting will be held in the Club Rooms on Friday 5 March 2010 at 1930 hrs

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**Law of the Theatre:**

At any event, the people whose seats are farthest from the aisle arrive last. *So true.*

**For Your Diary**

**Kariong Friday 26 Feb. 1930 hrs.**

Final preparation of signs, preparation and collection of various pieces of equipment, issue of CCARC Official tickets Final Briefing of club members.

**Saturday 27 Feb 1400 hrs to 1800 hrs.**

Grounds Preparation at Wyong Race Course. Again a large turnout of members is required to ease the workload.

**Saturday Night Dinner. 27 Feb. Start 1800 hrs.**

Would All CCARC members wishing to attend please contact Ray VK2HAY by Sat 14 Feb. for booking purposes with the Bowling Club.

**Sunday 28 Feb — THE DAY ITSELF**

We need to have all members to be in attendance and operational by 0700 hrs.

Maximum effort is needed early so the Field Day can be successful.

The most intense part of the day should be completed by 1100 hrs.

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Repeater Report

During a working bee the 2 x VHF WICEN Dipoles were replaced by 2 x refurbished VHF Dipoles.

Trevor VK2TIK has donated 2 x TX-RX Mid Band 6 5/8" Cavity Filters which have been modified for 6 metres.

Glenn VK2FOXS has modified a Mid Band FM-814 Transmitter for the 6 metre repeater.

Don has modified a Mid Band FM-814 Receiver for 6 the metre repeater.

The 6 metre repeater project is moving slowly to completion, only the Controller to go then testing at Somersby can proceed.

The Club's 2 Metre FM-92 has been reprogrammed for CTCSS operation.

The UHF FM-92 has a faulty (noisy) VCO and needs a replacement VCo or Radio as my collection of spares has dwindled.

*Don Crutcher VK2ZCZ
 Repeater Chairman*

NEW MEMBERS

Membership applications have been received from Rod Jarman of Kanwal, Matthew Jarman of Kanwal and Steven John Guyot of Kariong.

The applications have been recommended by the Committee will be considered for admission at the March 2010 meeting.

Greg James VK2GRJ

Field Day News

TO ALL MEMBERS

WHO WILL BE ATTENDING

THE FIELD DAY AT WYONG.

Please seek out President Col who will direct you to your Work / Position.

Also make sure that you sign the Attendance Book at the Information Room.

It is a good idea to wear your Club Cap; if you need to purchase one they will be available at the Information Room.

Be at Wyong early so you can perform your job and help all Amateur Radio enthusiasts.

We need all members so we can present the BEST AMATEUR RADIO FIELD DAY IN AUSTRALIA.

Members we need your help at the Wyong Field Day.

Remember there are Safety Jackets for Members to wear available at the Information room.

For further information at the Field Day just ask President Col.

Please—please—please

◆ Members, WE NEED HELPERS AT THE GATE AT 0500 HOURS, WE WILL ALSO NEED HELPERS FROM 0600 HOURS UP UNTIL 1000 HOURS

It is an easy job, either collecting money and giving out tickets, or controlling or directing traffic.

There has been much good comments about the Wyong field day on the air this year, let's make it the best.



◆ Members, our field day raffle is a big source of income; the prizes which are kindly donated by our traders. We need raffle ticket sellers, start time from 0700 hours, finish time is 1000 hours,

please step forward and help your club & amateur radio.

Can you spend an hour or so. You will have plenty of time to visit the Field Day after you have advanced the cause of your club.

Centenary Dinner

Members please inform me this week if you are going to attend the Centenary Dinner on Saturday evening, the 27th. February 2010.

We need the numbers so we can keep the Bowling Club informed. There will be a big delegation from the WIA National coming from Victoria.

Lets us show them that Amateur Radio is up and well in NSW. It should be a very good evening, this is a combined event with ARNSW and our own Club.

Regards Ray VK2 HAY ph. (02) 4325 2182. Money and numbers please.

SPECIAL GENERAL MEETING

By now all members should have received their notice of the Special General Meeting to be held on Friday 5 March 2010 commencing at 1930 hrs at the Club Rooms. It is proposed to make minor changes to our Constitution, Standing Orders and the names under which we conduct meetings. As outlined in the notice, the changes are mainly to ensure that we are in conformity with the various government requirements.

Greg James VK2GRJ
Secretary

WIA NEWS — Wireless Institute of Australia - <http://www.wia.org.au>

WIA Board appoints new Director

The WIA Board has, in accordance with the WIA's Constitution, appointed Philip Adams VK3JNI (pictured right) a director following the resignation of Robert Broomhead VK3DN, which has been previously announced. Phil's appointment by the Board is for the balance of Robert's term, which ends with the 2011 AGM.

<http://www.wia.org.au/newsevents/news/2010/20100204-4/index.php>

New Sydney Radio Club - Macquarie University Amateur Radio Club

A new amateur radio club is being formed at Macquarie University in Sydney. Students and staff are invited to form the new club, to promote amateur radio activity at Macquarie University. Enquiries from the local community are also welcome. Macquarie University is a centre of excellence in electronic, telecommunications and wireless engineering.

<http://www.wia.org.au/newsevents/news/2010/20100204-3/index.php>

This weeks WIA News Broadcast produced by Amateur Radio Victoria

A team of members headed by Jim Linton VK3PC and Barry Robinson VK3PV have produced this Sunday's VK1WIA broadcast. Other team members were Ross Pittard VK3CE, Peter Cossins VK3BFG, Steve Bushell VK3HK, Tim Lewis VK3HAM and Murray Lewis VK3EZM.

<http://www.wia.org.au/newsevents/news/2010/20100204-2/index.php>

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<http://www.wia.org.au/newsevents/news/2010/20100204-3/index.php>

Student-Built Communications Satellite Selected For Flight By NASA

A tiny communications satellite designed and built by University of Colorado at Boulder undergraduates has been selected as one of three university research satellites to be launched into orbit in November as part of a NASA space education initiative.

<http://www.wia.org.au/newsevents/news/2010/20100204-1/index.php>

Bushfire Radio Operator Recognition Day - Sunday 7th February 2010

For the first anniversary of the 2009 February fires the Yarra Valley Amateur Radio Group have applied for and received a special callsign in recognition of the services radio operators provided during and after the fires. This callsign is VI3KIAH and will operate at Kinglake, one of the most significantly damaged areas, on February 7, 2010. Radio amateurs and friends are invited to visit the station on the day. 'Kiah' is an Australian Aboriginal word meaning "beautiful place". The club will issue a special QSL card for contacts made on the day.

<https://www.wia.org.au/newsevents/news/2010/20100206-1/index.php>

WIA Centenary Celebration - Canberra

Planning is well advanced for the WIA Centenary activities taking place in Canberra, the nation's capital, over the weekend Friday 28th through Sunday 30th of May 2010, the event being just part of the year-long WIA Centenary celebrations.

<http://www.wia.org.au/newsevents/news/2010/20100131-1/index.php>

A brief History of American Radio

After electricity was established, the telegraph (Morse Code) and the telephone (Bell) preceded the development of the radio. It was only a matter of time before electromagnetic waves were discovered.

In the early 1800's, Michael Faraday in England, and Joseph Henry from USA each independently discovered that an electric current would jump from one wire to another even though the two were not touching. This discovery was the first baby step toward the invention of radio.

Next, Heinrich Hertz in the 1880's transmitted RF from one loop of wire to another loop and this was probably the first transmission of RF. Next, after that it became obvious that a receiver would be necessary to pick up the transmitted signals. One of the first "receivers" was a device called a coherer. This is a glass tube filled with random carbon particles and the ends of the tube had electrodes attached which touched the particles. A French scientist, Edouard Branly developed the coherer and Russian Alexander Popov improved it to receive RF, with an antenna connected. The RF wave aligned the particles to make it conduct into the following circuitry — the first being a bell.

About 1895 Marconi was busy with his development of increasing the power and range of his wireless. About 1900 the crystal set receiver became available and was one of the first that the amateurs used. About this time, Reginald Fessenden, (Professor at the University of Pittsburgh, Penn.) was experimenting to transmit speech. Helped by the U.S. Weather Bureau (contract) he and his assistant, Alfred Thiesen, were on Cobb Island near Washington, D.C. Fessenden was on one side and Thiesen on the other. Fessenden said, "One, two, three, four. Is it snowing where you are?" Thiesen heard it through his headphones and answered saying that it had just started snowing. That was probably the first spoken radio message.

On Christmas Eve, 1906, Fessenden transmitted a radio broadcast from his station that he built at Brant Rock, Massachusetts, which was meant for sailors on ships at sea. The sailors were surprised to hear Fessenden playing on his violin, singing and reading the Bible. The broadcast was tinny and full of static but the sailors could hear it well. After the broadcast Fessenden requested, "Will those who have heard these words and music please write to R.F. Fessenden at Brant Rock, Mass." Fessenden knew that his broadcast was successful when he received written replies from listeners.

From about this time, Dr Lee DeForest took a British invention called the Fleming Tube (from Sir John Ambrose Fleming) and modified it adding a third small coil to the two already in the tube. DeForest called it the "audion tube" which also became the vacuum tube or triod. DeForest continued his radio work by setting up an experimental radio station 2XG in New York city giving many broadcasts. Edward Howard Armstrong, an amateur operator developed "regeneration" by feeding the positive signal back through the amplifier. He also created the "superheterodyne" while in the Army during WW1 in 1917. His final contribution was the Frequency Modulation radio. Meanwhile, DeForest developed his own regeneration system and then challenged Armstrong's patent. DeForest sued Armstrong in what proved to be the longest patent litigation in American history, lasting fourteen years. DeForest finally gained the patent rights, leaving Armstrong a bitter and broken man after which he committed suicide.

David Sarnoff, a Russian immigrant, began his great rise in radio as a telegraph operator with the American Marconi Company. On April 14, 1912 while Sarnoff was on duty, he picked up a wireless message that the ocean liner S.S. Titanic had struck an iceberg and was sinking. More than 700 were rescued thanks to the message sent by Sarnoff to a nearby ship equipped with a Marconi wireless system. Sarnoff continued his rise by promoting radio and became the president of RCA (Radio Corporation of America).

A Westinghouse engineer named Frank Conrad was an amateur enthusiast who played records from his station in his garage at Pittsburgh, Penn., in 1919. The records were from a local store and soon their sales increased dramatically. A Pittsburgh department store mentioned Conrad's broadcasts in an advertisement for their radio receivers and their supply of radios sold out almost instantly. The vice-president of Westinghouse, H.P. Davis, saw Conrad's results and set him up with a more powerful transmitter which was placed on top of the Westinghouse plant in Pittsburgh along with a brand new radio studio. Then Davis put some of Westinghouse's production plants back to work which had been idle since the end of WW1. Now, instead of military equipment, they would be manufacturing radios. My uncle was a production line inspector of electric motors at the Pittsburgh Westinghouse plant.

Conrad and Davis applied to the US Government and received the first commercial broadcast license in the US. The new station went on air as KDKA on November 2, 1920. On 6 February 1920 the city of Pittsburgh had an increase in population—I was one of them! Nine months later we started listening to KDKA as my father had a 3-stage tuned RF breadboard receiver — (see photo on front page). This was manufactured by a company called Atwater-Kent. We stayed in Pittsburgh for two more years until my father was promoted to another oxygen plant as superintendent.

By 1921 close to 28 radio stations had been given licenses to broadcast and one year later the number was closer to 500 and by 1924 about 1500 were broadcasting around the US. Meanwhile, receivers grew from about 1500 in 1921 to 3 million in 1924 even though they were expensive compared to the weekly wage. The Westinghouse R.C., for example, sold for \$132.50. Many people built their own from kits or instructions in magazines. One manufacturer, Powell Crosley, JR., of Cincinnati, Ohio, introduced the Crosley "Pup". This small basis radio required headphones and sold for just \$9.75.

*(This interesting article is one of a series of two by Paul, VK2SPC .
The second "A brief History of Australian Radio" will be in the next issue of Smoke Signals.— thanks Paul)*