

(continuing C:\WINDOWS)

CHARM.DRV .EXE	SCANDISK .EXE	SETTIME .COM	TDILOG .EXE	TERMINAL .EXE
WINFILE .EXE				CLIPBRD .EXE
CONTROL .EXE				COLORKEY .INI
FIPEDIT .EXE				WINGEN .EXE
CLARIC .INI				CONTROL .INI
MAIL .EXE	ACCESSOR .COM	GAMES .EXE	STARTUP .COM	APPLIC1 .COM
QBASIC .EXE	EDIT .EXE	WINFILE .1	POSGPP .INI	EMULTRC .INI
EXCEL1ER .INI	EXCEL4 .INI	EXCEL .SLB	FILLING .INI	TODO .EXE
FOJICOLF .INI	VIDEO .INI	WININI .US1	CYCINI .US1	256COLOR .EXE
WINHELP .EXE	EMMS386 .EXE	RED .EXE	DIG .EXE	INET .INI
CHECKE .EXE	RELEASE .EXE	JURIDEX .INI	SYSTEM .INI	LEULCTRL .INI
VOICE .INI	CHILCAT .EXE	APPC2TU .COM	DELSTRT .INI	BOHE .EXE
RENCH .INI	RED .INI	REDRAW .INI	REDRAWF .INI	NETWCON .INI
NETCBOX .INI	RAWIMAGE .EXE	LETCHOPF .EXE	SHUTTLE .EXE	THUNDER .EXE
CONSOFT .INI	VR .INI	WICKEN .EXE	WDRSCHKP .INI	WINTRK .LOG
WORMON .EXE	WPC .EXE	WPC .EXE	WPC .EXE	WPCONF .231
QE .INI				JK .EXE
COL .INI				JK .EXE
IRWIN .DL				1.253
SYSTEM1 .INI	TIMEOUT .EXE	CONSOLE .COM	CONSOLE .EXE	TTENDED .INI
VIEWER .INI	SYSTEM .OLD	WIN .EXE	SYSTEM .INI	TRUIMGL .DLL
POWERIFY .DLL	IMGHDRS .SLC	WINDEL .EXE	WINDEL02 .EXE	SYSTEM .NOV

The Official Journal of The Gippsland
Gate Radio and Electronics Club Inc.

Press any key to continue

September 1996

Gippsland Gate Radio and Electronics Club Inc.

Club Meetings are held on the third Friday of each month
at the Cranbourne Girl Guide Hall in Grant Street.

The doors open at 8:15 PM & the meeting commences at 8:30 PM.

Visitors are most welcome.

Committee Members 1996/1997

President	Ian Jackson	VK3BUF
Secretary	Ivan Blezard	VK3ARV
Treasurer	Paul Ash	VK3HSA
Event Queue Co-ord.	Helmut Inhoven	VK3DHI
Social Co-ordinator	Reg Goddard	VK3UK

Magazine Editors &	David Campbell	VK3XMF
Printing and Dispatch	Cathie West	Ph. (03) 9789 6401

Deadlines for articles is Thursday week prior to the Meeting.

Club Station VK3BJA Located at the Guide Hall

Club Repeater VK3RDD Freq. in 52.575, out 53.575 Mhz

Call in Freqs. are HF on 28.325 Mhz, USB

VHF on 146.225 Mhz, FM and UHF on 438.850 Mhz, FM

Current GGREC Inc Membership Fee Schedule

Full Member \$25.00, Pensioner Member \$12.50

Junior Member \$12.50, Extra Family Member \$7.50

Fees due after each April Annual General Meeting.

Notes From The Editor

Thanks this month go to Judy VK3EXJ XYL for her letter from up north describing her and Ron's travels - I hope we haven't edited it too viciously! Mr President has also included a summary of what he thinks the latest proposed changes to the SMA mean - thanks Ian. Helmut VK3DHI has also contributed the Event Queue, Propagation Charts, River Cruise and Melbourne Cup weekend adverts. this month - some of which we have edited as new information has come to hand - thanks Helmut. Peter VK3VB has also provided this months Radio History as alternative to the American version of history published so far - good on you Peter.

If you have any items of interest you would like to see published in your club magazine please post on 3.5" disk preferably, or fax or phone them through to me at least a week before the general meeting. MS Word format is preferred, if on disk.

Catch you next mag... David & Cathie

THE PRESIDENTS REPORT

As recently as ten years ago the general population would have regarded amateur radio operators as electronic wizards, technical pioneers of the radio spectrum, or as providers of backup communications for the community. What has happened? Have we changed? No. The reality is that the rest of the population has caught up. With the saturation of high technology within our community such as mobile phones, computers and the internet, the ability to talk into a microphone and be heard on the other side of the world no longer fascinates, the magic has gone. Today, (if they bother to think of us at all) amateur radio operators are regarded as a bunch of old farts who listen to crystal radios. Can we do anything about this? Well, I dunno. It is still as difficult now, as it has ever been to obtain a radio license and I do not suggest that this be changed. Those who do acquire their radio licenses have mastered a basic understanding of electrical circuits and transmitter concepts. This is an achievement to be applauded in today's world where technical wizardry is synonymous with programming your VCR, understanding Easycall, or pressing START on a Windows 95 program. The biggest challenge that is presently before *all* amateurs is the task of improving the image of amateur radio. Hmm. How do you improve an image?

By the time you read this, our Radio Class will be coming to a close, the regulations exam will be out of the way and the final theory/CW exam is coming up. Good Luck! We should be hearing a few more callsigns on the air shortly.

The Lake Eildon trip in November (Melb Cup weekend) is worth contemplating. We intend to camp on the foreshore in the reserve down the Delatite arm. It will be a bring-your-own-everything weekend. Access is via a short gravel road in good condition. Yes, there are toilet facilities there. No bookings are required, just show up.

We have before us, an afternoon trip on the Yarra. It sounds pretty good, but we have to move fast and take money from you at this meeting. That's right, the one this Friday night. I believe that further details about this are elsewhere in this magazine.

Also this Friday night is our Computer Hardware night. Albert VK3BQO is our host. Here you will learn the difference between 32 and 70pin simms, the difference between Vesa local bus and PCI motherboards, and why we should never put more than two screws in the rear of our computer cases. (If any)

On the first Friday in October we have an Internet night coming up. This should be a really grouse night, don't miss it. (Look for the adds). Later in October Mike VK3KTO has kindly volunteered to set up a 16mm show for us. Before you get too excited... Yes, everyone on screen remains fully clothed. Be prepared to be entertained.

(BYO Popcorn and Fantales.)

There's heaps happening, don't miss any of it. DE, Ian VK3BUF

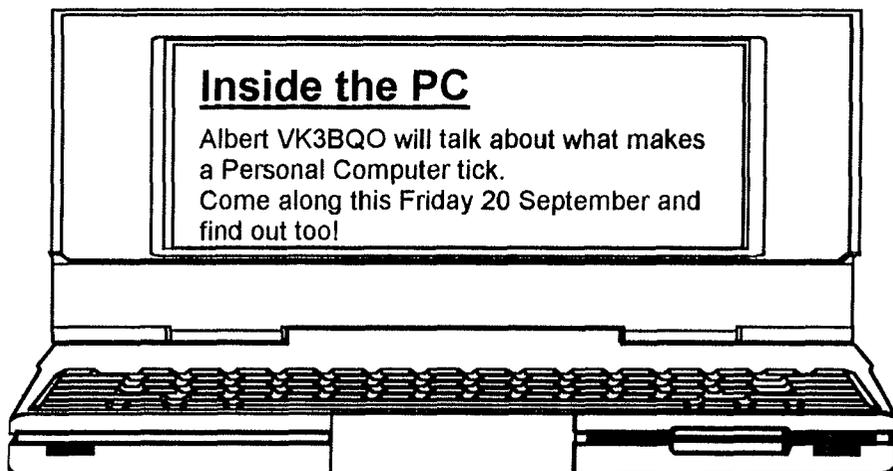
EVENT - QUEUE 09/96

Information supplied by Helmut VK3DHI.

Friday	20.09.96	08.15 PM	Club Meeting Talk on PC hardware by Albert VK3BQO
Friday	04.10.96	04.10.96	Talk on Internet
Tuesday	07.10.96	08.00 PM	Committee / Jota Participants Meeting at Reg's VK3UK place
Saturday	12.10.96	12.00 PM	Yarra River Cruise
Friday	18.10.96	08.15 PM	Club Meeting Mike VK3KTO shows 16 mm films
Saturday	19.10.96	12.00 PM	JOTA 1996 At The Guide Hall

Saturday	02.11.96	05.11.96	Club Weekend To Lake Eildon
Friday	08.11.96	08.00 PM	Committee Meeting
Friday	15.11.96	08.15 PM	Club Meeting (last meeting for 1996) Talk on "Yachting And Radio"

Saturday	14.12.96	02.00 PM	GGREC Christmas Break-Up (location to be determined)
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Internet Talk

Friday 4th October 1996
Starts 8:30 sharp!

Tom UK3DTW will demonstrate
the World Wide Web,
File Transfer Protocol,
E-Mail, News Groups,
Dead Fish Cam and
a whole lot more.

YARRA RIVER CRUISE SATURDAY 12.10.1996



We meet at SouthGate
12.00 noon.

The 2 hour cruise proceeds
up river to the Toorak
mansions then downstream to
the ports before returning
back to SouthGate.

Bring your money, a deposit of \$5.00 per person, to this coming meeting to secure your berth on the Titanic! The full cost is \$19 per person which includes a lunch of sandwiches; beer and/or wine is available at extra cost. We can park near Alexander Ave. near The Botanical Gardens then meet at Southgate at 12.00 noon.

A LETTER FROM THE ROVING ROBERTSONS

... You may be interested in our trip across to Gove to visit Peter and Marion. We left the van in the park at Katherine and departed Thursday morning at 5.30 am, travelling about 100 kms of bitumen before we hit the gravel. The first part of the gravel road was the roughest but it improved later on. In some places the road was so good Ron was able to get the speed up to 90 - 95 kms. We had to cross about 7 to 8 rivers and creeks, some with water, some dry. The scenery changed quite a lot as we went along, sometimes lots of trees, then no trees. The termite hills were very interesting too, grey in colour, sometimes red-brown. Some were tall and round, then there were others that were long and thin, these are called north and south because that's the way they face. In one place there were a large number of short grey ones that looked just like a lot of tombstones. We saw Brahman cattle, horses, donkeys and 2 buffalos as we went along.

The trip was 740 kms and we arrived at the Gove airport, where Peter works, about 4.00 pm rather tired and weary. It was very windy and rather overcast all the time we were there, the wind helped to keep the temperature down. Marion said the temp. in the wet season is very hard to take and it is a battle trying to get the washing dry because they don't have anywhere under cover to hang the clothes. On the Saturday we went to visit one of their beaches called Turtle Beach and a swimming hole. You could only get to these places by 4WD and we had to get a permit because it is Aboriginal land.

... We left Gove Monday morning just before 5.30 am arriving back at Katherine around 3.30 pm. We have been in Darwin for a week and will be leaving tomorrow to go a short distance to Batchelor on the edge of the Litchfield National Park. Last Saturday we went for a visit to the Territory Wildlife Park which was very interesting. While we were there a large group of cars arrived who were competing in the Variety Car Club bash. Most of them were decorated on top with a variety of funny characters.

Monday morning we went out to a place called Aquascene to feed the fish. Large numbers of different types of fish come in at high tide and you can walk into the water's edge and feed them with bread provided by the owners. In the afternoon we went on a Darwin Harbour cruise which was very enjoyable. It's supposed to be over twice as big as Sydney Harbour. It's interesting driving along the highway into Darwin because there are several WW2 airstrips running right along side the road.

... Friday 23rd ... We left Darwin Wednesday and have been here at Batchelor since, will leave in the morning back to Katherine for one night then on to Kunnanurra. ... In the park here there are hundreds of lorikeets screeching in the trees nearby, plus galahs, corellas and some black cockatoos. They feed them morning and night and you can imagine what the noise is like.... Give our regards to everyone at the Club. ... All for now.

Regards
Ron & Judy R.



Personality Profile Page



Full Name ?

Alan Douglas Rowe.

Call Sign ?

VK3KMN

Age ?

64 - 65 something.

When did you first join GGREC ?

17 - 18 years ago.

What do you like about Amateur Radio ?

It's been part of my life since I was 5 years old playing with radio controlled models.

What's your favourite band ?

2 Metres SSB.

What type of antennas do you have ?

18 element 2 Metre Yagis and an inverted V for HF use.

How tall is your radio tower ?

25 feet.

What do you do for a job ?

Manufacture Radio Towers.

Where do you do it ?

My factory in South Dandenong.

What was your first amateur rig ?

A home built AM CW 21 valve receiver and a push pull parallel 813 PA with an 807 modulated transmitter.

What made you become involved in Amateur Radio ?

Two engineering Uncles and early comic books.

What's your favourite fast food ?

KFC.

What's your favourite drink ?

A cup of tea.

What's the most dangerous moment you've had erecting towers?

My 175 foot unguyed tower fell over taking out a clothes hoist 2 doors away.

As a child what did you want to be when you grew up ?

No idea.

What does your family think of Amateur Radio ?

They just live with it, they like it or lump it.

What rig would you buy if I gave you \$10,000.00 ?

A Collins or Racal.

What would you do if you slipped and found yourself hanging upside down from your tower?

Make a grab for my small change!

What is happening to the SMA?

Some information and a few guesses, Ian Jackson VK3BUF

Prompted by information received from the W.I.A. I learned that some major changes were in the air. I got hold of an Internet site address where the proposed changes were posted and found a couple of documents which I downloaded. One was a 148 page copy of the legislation itself, and another was a brief 17 page commentary. It seems that the SMA will cease to exist and go the way of the P&T Dept, DOC and DOTC. Say hello to the 'ACA' (Australian Communications Authority).

Here is an introductory extract:

AUSTRALIAN COMMUNICATIONS AUTHORITY BILL 1996 COMMENTARY

The Australian Communications Authority Bill 1996 (the 'ACA Bill') establishes the Australian Communications Authority, to be known as the ACA, from 1 July 1997 (clause #3002K). This body will be constituted by staff of the Spectrum Management Agency (SMA) and the Australian Telecommunications Authority (AUSTEL) (apart from those staff responsible for competition policy matters who will be transferred to the Australian Competition and Consumer Commission). The merger of AUSTEL and the SMA is part of a proposed scheme for regulating telecommunications in Australia from 1 July 1997 under the Telecommunications Bill 1996.

Part 2 of the ACA Bill sets out the functions and powers of the ACA. The ACA's main functions will be regulating telecommunications in accordance with the Telecommunications Bill 1996 and managing the radiofrequency spectrum in accordance with the *Radiocommunications Act 1992*.

So it looks like Austel gets gobbled up as well. The repercussions of that are immense, but of relatively little interest of radio amateurs. Read on...

COMMENTARY

The draft Bill would amend the *Radiocommunications Act 1992* to:

- enable the sale of spectrum while it is occupied;
- apply section 50 of the *Trade Practices Act 1974* to the issue of spectrum and apparatus licences and to the authorisation of third parties to operate under such licences;
- make changes necessary to enable the making of electromagnetic compatibility (EMC) standards;
- ensure that the health and safety of persons using radiocommunications transmitters or receivers is protected;
- remove all provisions in the current Act that relate to technical licence specifications.

Lets just zoom in on that last sentence, something about removing license provisions....

Technical licence specifications

All provisions that relate to technical licence specifications in the *Radiocommunications Act 1992* would be removed by item 61A and other related items. The SMA considers technical

licence specifications to be an unnecessary regulatory tool because the SMA has sufficient regulatory power through its ability to make standards and impose obligations by means of licence conditions.

This is an interesting little gem. It seems that any radio regulation ever made is going to be scrapped, from now on regulations are to be just a bunch of footnotes attached to individual licenses. On the face of it this change seems fairly harmless, but the implication is that the hard guidelines behind spectrum planning are to be financially driven. If the right people are taken to a free lunch and if a company cheque book is thick enough, then an influential company ought to be able to get pretty much anything they wish on their license without any need for legislative changes. How about a 5KW paging transmitter on 146.700?

But wait, there's More!

The Government places great importance on the need to consult with the telecommunications industry and radiocommunications community, public interest bodies and the general public about changes to communications legislation which may affect them.

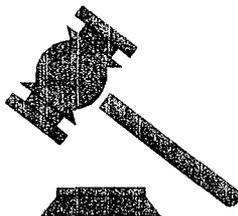
Public comment on the Bills is invited with the final date for making submissions Thursday, 5 September 1996.

I hope you can read faster than I, as this information has only been made available for about three weeks before the deadline!

Perhaps I am being just a little paranoid, but this could be setting the scene for the removal of many band planning conventions. I have heard that there are no changes to amateur services proposed, but license fees are usually a soft target whenever any government changes office. There is plenty of other text in the document all about the rights of the department to re-allocate spectrum space from existing users to new users and a few other odds and sods, but it is difficult to judge the intent of these proposals.

Just because the government will have the power to do pretty much what it likes does not necessarily mean that it will actually do anything. Still, have you ever heard of anyone buying a lawnmower who has no intention of cutting the grass?

If you want to read these documents, they are available from the federal govt. Web site at <http://www.dca.gov.au> . The Documents are: TRANCON2.DOC and COMMNTY.DOC.



Brain Teasers?

What's the difference between a Silicon and a Germanium diode?

Where would Germanium diodes be used in favour of Silicon diodes?

What is meant by the terms: a) Forward Biased, b) Reversed Biased, c) P.I.V., and d) Leakage Current?

What are Varicap (Varactor) diodes used for?

Why is there always a resistor in series with a Zener diode in common regulator circuits?

What is the main cause of hum on a radio transmission: a) poor D.C. regulation in the power supply, b) open circuit primary on the power supply transformer, c) the transmitter coax passes near 240V power lines and d) the operator doesn't know the words?

How do you determine the Frequency Response of an audio amp?

What potential (positive or negative) would you apply to the base of an NPN transistor with respect to the emitter to enable collector current flow?

In a Common Emitter transistor amplifier, which leg of the transistor is likely to be connected to ground?

What is meant by the terms: a) Beta, b) Phase inversion, c) Thermal runaway and d) Saturation.

In a Common Emitter amplifier, indicate typical: a) Input impedance, b) Output impedance, c) Output Voltage, d) Current gain, e) Voltage gain and f) Power gain.

In a Common Collector amplifier, indicate typical: a) Input impedance, b) Output impedance, c) Output Voltage, d) Current gain, e) Voltage gain and f) Power gain.

In a Common Base amplifier, indicate typical: a) Input impedance, b) Output impedance, c) Output Voltage, d) Current gain, e) Voltage gain and f) Power gain.

When a transistor symbol has an arrow pointing towards the outside of the circle, what does it tell you about the transistor type?

What is the fundamental difference between a conventional Bipolar Transistor and a Field Effect Transistor?

What are the designations of the three legs on a FET? S_____, D_____, G_____.

Name one application of a Dual Gate FET?

How does the input/output impedance of a FET differ to a transistor?

Draw the circuit symbol for an SCR and label the leads.

Once an SCR has been triggered, what are the two methods of resetting the device?

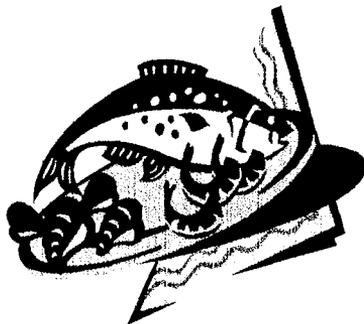
How can an SCR be used to control the speed of a D.C. motor?

What are the decimal equivalents of the binary numbers: a) 0010, b) 0111, c) 1000, and d) 1111?

Draw the circuit symbols for an AND, OR and INVERTER gate.

If an INVERTER gate was operating on a 5 volt supply and had a 2.4V potential applied to the input, what would be the output voltage (assuming that the device is an ideal model)?

Helluva Time at Hampton Park



Once again the GGREC social set met for an evening of fantastic food and frivolous festivities. Hampton Park Tavern was the venue for this night of gorging and gas-bagging.

Reg VK3UK was just about to give up on his meal when it was discovered someone further down the table had stolen it (and half consumed it). Dorothy made a gallant effort to gobble up the largest seafood platter 🐟 you have ever seen while many also overindulged at the dessert trolley 🍰.

A venture into the children's playroom was at your own peril, hockey shin guards would certainly have come in handy.

Newcomers to our social elite were Nareé and Mike, current club class members; welcome to the GGREC.

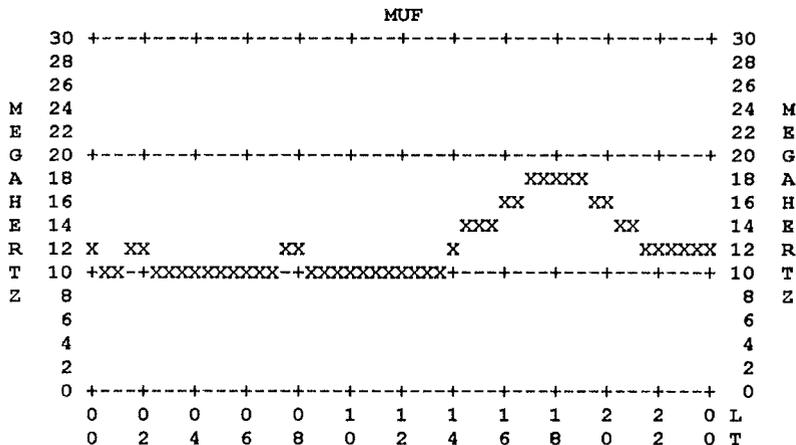
Unfortunately no gossip to report but I'm keeping my ears open and my pen poised.

Cath's Chatter 🍷🍷

MINIPROP+ SHORT-PATH PREDICTION 06-09-96

Melbourne, Vict. to England

SSN:4.0 Flux:65.6 Radiation Angle:4 deg for Minimum No. of F Hops:6

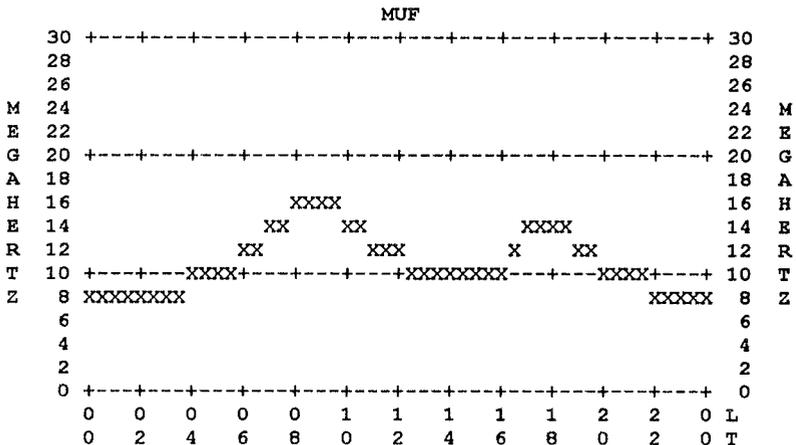


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MINIPROP+ LONG-PATH PREDICTION 06-09-96

Melbourne, Vict. to England

SSN: 4.0 Flux:65.6 Radiation Angle:2 deg for Minimum No. of F Hops:7



BLOW UP BLOW UP BLOW UP

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to get it done?*

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General Meeting 16 August 1996

No official meeting held.

Guest Speakers: Peter VK3VB spoke on the Alinco DX70 transceiver.
David VK3XMF spoke about the features of W4W Ver. 6.

RADIO HISTORY - According to "World At Their Fingertips"
by John Clarricoats, O.B.E., G6CL

Professor D.E. Hughes of London, in 1879, showed to a group of distinguished scientists that it was possible to transmit signals, without the use of a connecting wire, over distances of several hundred yards using an induction coil and a microphonic joint as a receiver with a telephone earpiece. Hughes rightly surmised that the oscillations were propagated through the insulating medium between the two instruments and that they penetrated through solid walls but, discouraged by the scepticism of several well-known people, he did not continue this work beyond the purely experimental stage.

... Hughes experiments were first conducted within his own home, where distances up to 60 feet were covered but on several later occasions he walked up and down Great Portland Street, in the Regents Park area of London, with the telephone to his ear and was able to hear signals from a transmitter almost 500 yards away. He also noticed that the waves were reflected by some of the buildings.

The Globe newspaper of May 12, 1899, recorded that "Hughes' experiments of 1879 were virtually a discovery of Hertzian waves before Hertz, of the coherer before Branley and of wireless telegraphy before Marconi and others".

... Professor Hughes... must assuredly be regarded as Britain's first radio amateur.

Supplied by Peter VK3VB