

VK7 REGIONAL NEWS BROADCAST

FOR SUNDAY 23 MAY 2010

WEAK SIGNALS FROM AROUND THE WORLD

Using QRP via DFCW

Bob, VK7ZL, has been continuing with his low power experiments on the 30M band using Dual Frequency CW. With DFCW each morse element is the same length but the dashes are 5Hz higher in frequency than the dots thus producing a regular step pattern which is much more visible than regular 6 second dot morse.

There are three preferred pieces of software used for displaying the signals, Spectran, Argo and Spectrum Lab, each capable of seeing signals down to about -30dB. The screen grabs from the software are then uploaded to the internet so it is possible to see your own signal almost in real time.

Bob's current setup is a transmitter running 5 watts with the output fed into a home brew step attenuator of 7dB and 10dB.

With 10dB switched in an output of 500mW is obtained and that signal is regularly seen on the grabbers of both ON5EX and PA1GS at about 0500 GMT. On Thursday, 20 May, ON5SL received the signal via long path, about 22,900Km, and in his words "using a 1/4 wave vertical with almost no radials on dry soil". The receiver was a Kenwood R5000.

With an output of 5 watts and 7dB of attenuation the signal is reduced to 1 watt and then a second step of 10dB reduces it to 100mW. That signal is then fed into a second home brew step attenuator of 10dB, 10dB and 20dB so power levels can be reduced from 100mW to 10mW, 1mW, 100uW and finally 10uW.

On Tuesday, 18 May, at about 0000GMT a 1mW DFCW signal was been seen briefly by ZL2IK but thunderstorm activity at his end put an end to that experiment. Back in March of this year some tests were carried out with David, VK2DDI, on Berry Mountain. Bob produced a signal of 100uW from a signal generator which was clearly visible. When David gets his new antennas up they will continue with those tests this time using DFCW and indications are that a 10uW signal should be visible.

Bob's antenna is a resonant inverted V dipole at about 9 metres at the apex fed with 50 metres of RG213 coax so the actual radiated power would be somewhat less than the measured power at the transmitter end. The antennas used for receiving are generally wire antennas, either Off Centre Fed or half wave dipoles with some stations using verticals.

<http://www.users.on.net/~bobw/homepage/>

(73 Bob, VK7ZL)

VK7 EVENTS CALENDAR

A summary of the events across VK7 over the coming months:

REAST – May 26 – ATV Experimenter’s Group – Queen’s Domain Clubrooms starts around 7:30pm.

<http://reast.asn.au/atv/>

WIA – 28-30 May – WIA Centenary AGM – Canberra

<http://www.wia.org.au/newsevents/centenary/about/index.php>

CCARC – 29 May - General meeting and construction of 2m end fed Dipole project - Penguin Lions club rooms starting 1:30pm.

<http://www.my-x15.net/ccarc>

REAST – June 2 – Amateur Radio and Telemedicine in Antarctica with VK7JN starts 8pm in the Queen’s Domain Clubrooms.

<http://reast.asn.au/events.php#ARAntarctica>

NWTATVG – June 5 - General meeting commencing around 2.00pm.

<http://www2.vk7ax.id.au/atvgroup/>

NTARC – June 9 - BBQ meeting at the Mt Barrow interpretation centre.

www.ntarc.net

REAST – June 9, 16, 23, 30 – ATV Experimenter’s Group – Queen’s Domain Clubrooms starts around 7:30pm.

<http://reast.asn.au/atv/>

NON-COMMERCIAL FOR SALE & WANTED

For Sale

Professionally produced QSL cards with a Tasmanian feel in a range of colours.

Neil who is a Coast Radio Hobart operator has for sale blocks of 100 different coloured and different imaged new QSL cards which he has no use for and is offering them for \$10 for 100 cards.

If interested contact Neil on mobile 0417 583 881. Neil is also up at the domain on Mondays as a Coast Radio Hobart operator.

NORTHERN NEWS

Northern Tasmanian Amateur Radio Club

www.ntarc.net

There is a humourous little quip that goes something like “to err is human, but to really make a mess of things requires a computer”. Well yours truly VK7ZJA can’t even use that excuse for the mistake made in last weeks broadcast, it was plain and simple human error....HIHI.

I believe the computer gurus even have a snazzy acronym for this: PEBCAK – Problem Exists Between Chair And Keyboard. But I digress, back to the story at hand: last week it was reported that the undertakings for a replacement Snow Hill repeater, VK7REC, were a little more advanced than what they actually are. However, at this stage, the WIA have not yet approved the 70 centimetre frequencies for the replacement repeater, but Tony VK7YBG and Ann VK7FYBG continue to make good progress on this. I’m sure everyone will join me in thanking Tony and Ann for their efforts to get a very useful repeater back into service.

John VK7XX asks the question “who said the bands were dead?”. About four years ago, John decided to make a move from VK4 to Turners Marsh, just to the north-east of Launceston. Two years later, John applied for a two letter callsign and was successful in gaining the callsign VK7XX.

Since that time, John has built up a highly impressive list of contacts: DXCC of 247 countries, 168 confirmed. IOTA with 408 islands worked, and 233 of those confirmed. Worked All Zones sees 40 zones worked and confirmed. What makes these statistics even more impressive is that John never once initiated a QSL confirmation; all of them have been sent to John directly, or via LOTW and eQSL. This just goes to prove what John has always suspected, but seems to be little understood by some in our little island state; that Tasmania is actually quite a sought after contact destination on all HF bands. John reports that he always seems to attract a bit of a pile-up when ever he gets on air. From this, I think we can safely say that the bands are far from dead, and with conditions improving every day – sunspot maxima is only two years away – why not get on air now and share in some of the very impressive contacts that John has made?

Lastly, we must not forget the Mt Barrow Interpretation centre will be the venue for NTARC’s June meeting on Wednesday the 9th. You’ll want to bring along some tasty food to sizzle on a BBQ plate, hot drinks, and some stories to share with your fellow NTARC members. At nearly 600 metres above sea level, you’ll also want to bring some very warm clothes and blankets to keep cozy too.

Thanks from

(Jason VK7ZJA, NTARC Secretary)

NORTH WEST NEWS

Cradle Coast Amateur Radio Club (CCARC)

CCARC News

<http://www.my-x15.net/ccarc>

The CCARC will be holding a general meeting at the Penguin Lions club rooms on Saturday 29th of May at 1:30pm. Amateurs on the north west coast are advised that the main feature of this meeting will be a portable 2m end fed dipole construction project. People that bring along all the required parts will leave with their antennas constructed and tuned on the day. All amateurs are welcome to come along and build their own. If you don't know what is required then contact David VK7DC and he can advise what you need to bring. So come along and see what the hobby is all about. Now don't forget that time, Saturday 29th of May at 1:30pm

Prospective amateurs and amateurs wishing to upgrade can contact the learning facilitator Keith Winkler VK7KW who can help you along the path to a new licence. Contact details are available on the Cradle Coast Amateur Radio Club website, which is easily found by a Google search for CCARC Tasmania

Regards from

(David, VK7DC, Secretary, CCARC)

North West Tasmania Amateur Television Group

<http://www2.vk7ax.id.au/atvgroup/>

Next Club General Meeting

The next General Meeting of the North West Tasmania Amateur Television Group is scheduled for Saturday 5th June 2010.

Commencing around 2.00PM. The venue for this meeting will be confirmed shortly.

As usual all persons are invited and welcome to attend.

Amateur Radio Licence Assessments and Training

Persons in the N/West Area of VK7 interested in Training and Assessments for all classes of Amateur Radio are advised that the Club

can provide all these requirements and in addition provision of Facilitators via the Radio and Electronics School if candidates so desire.

For more information regarding these facilities, please contact the Club's Learning Organizer Tony VK7AX, or the Club. Contact details can be found on the Club Web Site or the WIA site under VK7 Clubs.,

73's until next time

(Tony VK7AX, News Officer NWT-ATV Group)

SOUTHERN NEWS

Sorell Men's Shed

As heard on the WIA National News the Hobart Vintage Machinery Society inc. will be conducting a working display at the Sorell Men's Shed today the 23rd of May. It started at 9am and will run through until 2 pm.

Come along and see these old machines running and also the static displays of memorabilia. Food and drinks will be available at the shed. Mostly all displays will be under cover in case of bad weather.

Restorations and working large and small engines will be on show including, water windmill restoration, working wind generators display and ongoing Men's shed activities.

There will also be old motor bikes, old Bedford tow truck restoration in progress.

Men's Shed Shop will be open with lots of pre loved items for sale.

So come along to a great day at the Sorell Men's Shed. just follow the signs at the Sorell traffic lights.

VK7SMS Radio Station will be on air call on 146.700 if you get lost.

<http://sorellmensshed.org/>

(Ken, VK7DY)

Radio and Electronics Association of Southern Tasmania

<http://reast.asn.au/>

2010 Callbooks

There are only two 2010 callbook left. If you are interested in purchasing one of these then be quick to get to the Caltex Service Station at 136-138

Main Road Moonah on the corner of Amy St. Ask for Clayton VK7ZCR and a reminder that purchases are cash only.

(Gavin VK7HGO, REAST President)

Licence Examinations

Reg VK7KK lets us know that the recent exam session sees congratulations for Roger Cripps who passed his Foundation Licence assessment.

We look forward to hearing Roger on the air in the near future.

If you are interested in sitting an exam then contact Reg VK7KK on 0417 391 607, or email on regemm@ozemail.com.au.

(73, Reg VK7KK, REAST Education Officer and Assessor)

June Presentation

Amateur Radio and Telemedicine in Antarctica

Dr Graham Denyer VK7JN who is currently working at the Australian Antarctic Division will be presenting his experiences of operating amateur radio and telemedicine in Antarctica.

Being isolated on an Australian base presents many challenges for both the amateur and medical doctor and Graham will be sharing his vast experience.

This should be a fascinating presentation and happens on June 2 starting at 8pm in the Queen's Domain Clubrooms.

<http://reast.asn.au/events.php#ARAntarctica>

(REAST Committee)

ATV Experimenters Night

We had a another great roll-up to the ATV night and we started by setting up a 1250MHz "outside broadcasting" or OB link between the clubrooms and the ATV studio. This enabled the broadcast of the presentation that Justin VK7TW will be giving during the weekend of activities at the WIA AGM. This presentation went live along with the powerpoint presentation on the big screen.

This “dry-run” of the presentation enabled some very valuable feedback on the presentation to fine-tune it to ensure the timing and messages are as clear as they could be.

Patrick VK2FPJB then setup the studio PC that he has installed Linux on along with some interesting multimedia software that he was using to do the titling in ATV studio and we spent the rest of the night playing with the titling with the luminance-keying on the video mixer.

There is a link to a picture of this experimentation on the email and internet editions of this broadcast.

<http://reast.asn.au/atv/index.php#titling>

A big thank you to Patrick for all the time spent configuring the PC.

This week should see some interesting activities with an attempt to make a HF contact with Warren VK7FEET who will be moored off Macquarie Island on the Aurora Australis. Warren is assisting with the Pest Eradication Program for the next few weeks.

Our video presentations will be the screening of one of the videos from the 1983 DXPedition to Heard Island – “The Ship that Shouldn’t Have”. This is a fascinating record of the perilous journey down to Heard Island in an interesting ship.

Hope to see you along.

<http://reast.asn.au/events.php#ATVnights>

(73, Justin, VK7TW)

SATELLITE NEWS

Two More Astronaut Hams

The ARISS Status Report this week says two more astronauts have received their Amateur Radio Licenses.

Ron Garan of Expedition 27 completed testing for his amateur radio license and has been issued KF5GPO.

Kevin Ford has been issued the callsign of KF5GPP and is currently training for a future expedition crew assignment.

Andre Kuipers had an ISS amateur radio review session on May 4 in preparation for his tour on the ISS as part of the Expedition 30 crew. Don Pettit will join him as part of that crew.

(Sourced from the AMSAT News Service)

IARU Publishes Revised Requirements for the Amateur Satellite Service

In preparation for frequency allocation negotiations the IARU has published a full specification that can be found at the email and internet edition of this broadcast.

<http://www.iaru.org/ac-09spec.pdf>

Items of interest to the Amateur Satellite Service include:

An allocation for the Amateur Satellite Service is sought in the 50-54 MHz range to bridge the gap between 28 MHz and 144 MHz.

The Amateur Service requires retention of the existing allocations in the 420-450 MHz band and opposes new uses by other services or low-power devices except where sharing or compatibility studies have been satisfactorily concluded. Because of the crowding of the existing band 435-438 MHz with unmanned amateur satellites and manned space stations, it is desirable to study expansion of the band.

The Amateur Service seeks retention of the band 1240-1300 MHz. The Amateur-Satellite Service seeks retention of the band 1260-1270 MHz and deletion of the "Earth-to-space only" restriction.

(Sourced from the AMSAT News Service)

AMSAT-India Reports Several University Cubesats Under Development

AMSAT-India attended the first Indian Small Satellite Systems Conference at ISRO Bangalore. VU2POP reported that 26 universities in India have established amateur radio clubs and are in various stages of Amateur Radio Satellite development.

VU2POP wrote, "As of now most of the university satellites are either digital with only beacon downlink and no voice transponder. AMSAT India has two linear transponders ready. We are asking ISRO for a higher orbit to cover a larger foot print and longer pass duration for future AMSAT-India satellites".

As a reminder, on VO-52's 5th Birthday the HAMSAT team and ISTRAC has requested user feedback from the Amateur Radio community. Send your feedback to the email address that you can find on the email and internet editions of the broadcast

Mani, VU2WMY at wmy@isac.gov.in or vu2wmy_mani@yahoo.com

(Sourced from the AMSAT News Service via AMSAT-India Technical Director, Pop VU2POP)

AO 51 in eclipse – Please do not use

We've turned the repeater back on AO-51, along with the PL. I have a favour to ask of our Southern Hemisphere users, including those in South America, Southern Africa, Australia, and New Zealand.

Please avoid using AO-51 while the satellite is eclipsed. Most tracking programs indicate illuminated or eclipsed states, and it can always be found by whether the footprint of the satellite is crossing or in contact with the footprint of the sun. Generally this is occurring when the satellite is south of 30 degrees south latitude at present.

I realize this is a large favour to ask, but the alternative right now is moving to a scheduled type operation, which I would like to avoid. Please pass this to your friends, other users you know, and your national satellite email lists and forums.

Thank you and 73, Drew KO4MA AMSAT-NA VP Operations.

(Sourced from the AMSAT-VK Mailing list via Judy VK2TJU)

DX NEWS

LORD HOWE ISLAND, VK9L.

Tomas, VK2CCC will be QRV as VK9LL from May 24 to 31. Activity will be on the HF bands. This includes an entry in the upcoming CQ WPX CW contest with an emphasis on 160 and 80 meters. QSL direct to home call.

(ARRL Mailing List)

TECHNOLOGY NEWS

Data Transfer via Lighting System

The Engadget website ran a story on a lighting system that has been developed in China that uses the lighting to transfer data.

LED data transmission used to be all the rage -- we fondly remember beaming Palm Pilot contacts via IrDA. Then we got omni-directional Bluetooth and building-penetrating WiFi, and put all that caveman stuff behind us.

But now, scientists the world over are looking to bring back line-of-sight networking, and the latest demonstration has Chinese researchers streaming video to a laptop with naught but ceiling-mounted blue LEDs.

The Chinese Academy of Sciences claims to have realized a 2Mbit per second internet connection that transmits data simply by modulating the flicker of the little diodes, and imperceptibly enough to have them serve as room lighting as well.

Like Boston University before them, the Chinese scholars see short-range LED networks controlling smart appliances. It's not quite the gigabit speed you'd get from laser diodes, but this way you'll get more mileage out of those expensive new bulbs...HIHI.

<http://www.engadget.com/2010/05/17/chinese-scientists-demonstrate-2mbps-internet-connection-over-le/>

(Sourced from the Engadget website)

TECHNOLOGY NEWS

World's first leaf shaped crystalline silicon solar panel

Elektor E-zine carried a story from the company Greendix that is manufacturing a leaf shaped solar cell. In order to provide a new life to a conventional technology and help it merge more naturally into our surroundings, a team at Greendix has developed a new process to design and produce leaf shaped solar panels. The new design is claimed to revolutionize users and designer's stereotypical thinking that Solar panels can only come in rectangular shapes. The cells put out on average about 1.25 watts at a maximum of 5.0 V and are about 170.5mm long

The new product should allow solar trees to be planted even in places where real trees can't grow or survive.

Other than the cosmetic advantages of this product, the solar tree concept can be a renewable energy source for different types of applications, for example it can be used in decorative home and garden products, infrastructure projects, electric car charging station, consumer products, etc.

More info can be found at: <http://www.greendix.com>

(Sourced from the Elektor E-zine website)

WEB & EMAIL EDITION EXTRA BITS!!

FeldHell Club

<http://sites.google.com/site/feldhellclub/>

Remember TRON the movie in the 80s?

Space Paranoids Game

<http://www.spaceparanoidsonline.com/>

TRON Legacy

<http://www.thevine.com.au/entertainment/news/new-breathtaking-tron-legacy-artwork.aspx>

The Assembly Line at FORD – Model T

http://www.youtube.com/swf/l.swf?video_id=S4KrIMZpwCY

The important question answered about space!

http://www.youtube.com/watch?v=m1wwzwvfsC0&feature=player_embedded

Intro to FM

<https://ccrma.stanford.edu/software/snd/snd/fm.html>

FM Tutorial

<http://www.sfu.ca/~truax/fmtut.html>

Is Ball Lightning all in the Mind?

<http://www.abc.net.au/science/articles/2010/05/17/2899845.htm>

Mobiles and Cancer – Jury still out – More data needed

<http://www.abc.net.au/science/articles/2010/05/17/2901641.htm>

Space Shuttle Photographed Crossing Sun

<http://www.space.com/missionlaunches/shuttle-atlanits-space-station-sun-photo-100520.html>

Mars Rover Postcard

http://www.marsdaily.com/reports/Mars_Rovers_Set_Surface_Longevity_Record_999.html

The X-37B – it's a secret!!!

http://www.spacedaily.com/reports/New_Fact_Sheet_Details_Likely_Roles_Of_USAF_Secret_Space_Plane_999.html

The strangest things in space

<http://www.space.com/bestimg/?cat=strangest>

World's smallest flash microcontroller package

http://www.elektor.com/news/world-s-smallest-flash-microcontroller-package.1359110.lynkx?utm_source=UK&utm_medium=email&utm_campaign=news

Bring TIM

<http://www.bringtim.com/>

Kiwi Advanced Research and Education Network (KAREN) Expands.

http://www.sciencealert.com.au/news/20102005-20975.html?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+sciencealert-latestnews+%28ScienceAlert-Latest+Stories%29

Trying to out smart those spitting cobras?

<http://www.sciencedaily.com/releases/2010/05/100514074909.htm>

Mathematicians Solve 140-Year-Old Boltzmann Equation

<http://www.sciencedaily.com/releases/2010/05/100513162755.htm>

Do you have some interesting internet sites you have some across in the last week – send them in to justingc@ozemail.com.au

VK7 Regional News Group Email Addresses

Post message: vk7regionalnews@yahoogroups.com

Subscribe: vk7regionalnews-subscribe@yahoogroups.com

Unsubscribe: vk7regionalnews-unsubscribe@yahoogroups.com

List owner: vk7regionalnews-owner@yahoogroups.com

VK7 Virtual BPL Tours

<http://www.youtube.com/watch?v=fdcY0Eetvsw> - Mt Nelson

<http://www.youtube.com/watch?v=1gsxpya3CnQ> - North Hobart

<http://www.youtube.com/watch?v=G7DfdxjRkpU> - RU ready for BPL?

If you are interested in becoming an amateur radio operator or upgrading your licence then we suggest you contact your local club for details and/or take a look at what the Radio and Electronics School has to offer. They have a range of courses that can be delivered through a variety of methods.

They can be found at: www.radioelectronicschool.com

Finally today, a reminder to those people rostered for next week's broadcasts:

Newsreader: VK7FB

80m: VK7ZK

40m: VK7JGD

20m: VK7AR

10m: VK7ZGK

UHF CB: VK7HGO

HF CB: VK7TED

Thanks to all people and organisations who assisted with this broadcast.

THAT CONCLUDES OUR VK7 REGIONAL NEWS BROADCAST
FOR THIS WEEK.

YOU HAVE BEEN LISTENING TO OR JUST MISSED VK7WI.
NEXT WEEK THE NATIONAL WIA NEWS CAN BE HEARD AT
0900 FOLLOWED BY THE VK7 REGIONAL NEWS AT 0930
HOURS.

DETAILS TO SEND NEWS FOR THIS BROADCAST CAN BE
FOUND AT REAST.ASN.AU AND THE DEADLINE FOR ITEMS IS
21:00 ON FRIDAY PRIOR TO THE SUNDAY OF THE BROADCAST.