

VK7 REGIONAL NEWS BROADCAST

FOR SUNDAY 30 MAY 2010

VK0 GREETINGS

Greetings from Macquarie Island

The following email is from Warren VK7FEET who is currently on Macquarie Island assisting with the Pest eradication program. Warren commented that to better align local hours of operation with the short day light hours all clock have been moved forward 2 hours. Therefore this makes the time on Macquarie the same time as ZL. This will revert when the helicopter operations for the pest eradication program cease in about 4 weeks.

While steaming south on L'Astrolabe (Callsign FHZI) Warren tuned in to the 40 and 80 meter bands but it seems that the ships older marine radio does not support LSB. Warren did make a QSO though with the Island on 3023kHz to the delight of all present on the bridge.

I am sure that Warren will be communicating with us more and hopefully via an amateur radio contact in the near future.

Greetings from the sub-Antarctic,

(73, Warren vk7feet/vk0)

VK DIGITAL RECORDS

10 GHz from Mt Wellington to Melbourne

On 22 May Rex, VK7MO and Justin, VK7TW ventured up Mt Wellington and worked David VK3HZ who was at Sunbury just North of Melbourne on 10 GHz using the digital mode JT65c via aircraft scatter propagation.

While aircraft scatter works well on two metres this is because an aircraft typically produces a diffractive scatter forward lobe about 7 degrees wide or sufficiently wide to return to the ground. On two metres such lobes give a gain of around 20 dB. At 10 GHz the forward scatter lobe will be around 0.1 degrees wide and too narrow to return to earth and be useful. However, the theory does suggest that there are minor lobes at larger angles that might be useful but at much lower signal levels. The thought was that the weaker signals could be made to work through the use of the narrow bandwidth digital mode JT65c which works to around -27 dB and the higher gains that are possible with small dish antennas at 10 GHz.

The downside of using such narrow bandwidth modes is that small changes in Doppler due to the movement of the aircraft could make things difficult if not impossible. Earlier tests which Rex and David had conducted at 1296 MHz had shown that it was possible to reduce the Doppler by accurately aligning the positions of the transmitting and receiving stations with the aircraft path. It turns out that Mt Wellington is almost exactly in line with the path of Melbourne Hobart aircraft and the Sunbury location was chosen to line up at the Melbourne end. Mt Wellington also has the advantage that it is line of sight with aircraft almost across Bass Strait.

A first attempt was made on 1 May and produced some decoded signals at the Mt Wellington end but no decodes in Sunbury. For this second attempt David used an improved pre-amplifier and more care was taken to ensure correct time at each end. The position of the aircraft was plotted using a 1090 MHz receiver that monitors the GPS positions transmitted by some aircraft. Initially no aircraft were seen but it turned out that the first scheduled aircraft was an hour late. On the second Melbourne Hobart flight signals were decoded over a total of 14 minutes with a two way QSO being completed. Then on the late aircraft further reports were exchanged measuring signal strength both way over 13 minutes and peaking at -16 dB on the WSJT scale. The QSO has been submitted for the Australian 10 GHz digital record at 624 km extending an earlier tropo-scatter record held by Rex and David at 509 km.

Analysis of the signal levels suggests that the signal comes in short bursts which may be the result of specula reflection like the glints of sunlight hitting a windscreen rather than minor diffractive scatter lobes, but it could also be a combination of both. So there is much more work to do to fully understand this mode of propagation.

http://www.vk3hz.net/aep/AEP_on_10GHz.pdf

http://www.vk3hz.net/aep/AEP_on_10GHz_part_2.pdf

(73, Rex, VK7MO)

VK7 EVENTS CALENDAR

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

WIA – This Weekend – WIA Centenary AGM – Canberra

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

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/>

NORTHERN NEWS

Northern Tasmanian Amateur Radio Club

www.ntarc.net

Is it the end of the month already? How time flies! This also means that Monday morning’s coffee will be at Lilydale. Take a break away from the busy life in the city and take the short drive out to picturesque Lilydale and sample some of David VK7YUM’s renowned hospitality. Your taste buds will be very glad you did!

Max VK7KY has recently had his wings clipped... well to be more precise, had the doctors do a bit of tinkering with his knee in hospital. Happily, Max is home now and recovering, so if you do hear Max on air, wish him a speedy recovery. We hope you’re up and around soon Max.

The new 70 centimetre repeater for VK7REC is slowly taking shape. Crystals have been ordered, the ACMA & WIA paperwork for approval isn’t far off being submitted, and so far, everything is going to plan. I just hope Murphy isn’t listening to this broadcast, lest he have a hand in delaying the return of this popular repeater.

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>

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/>

Club General Meeting

Members of the North West Tasmania Amateur Television Group are advised the next general meeting of the Club is scheduled for Saturday May 5th. 2010.

YES... THAT'S NEXT SATURDAY!!!

The meeting is to be held at the QTH of Ivan VK7XL, 9 McNaughton Drive, Gawler, commencing around 2.00PM.

As usual, all persons (members & non members) are welcome and invited to attend.

100 Percent Renewal of Club Membership

We are pleased to report that the Club has experienced a 100% renewal of its membership for the current financial year 1st. Jan. 2010 – 31st. Dec.2010.

Membership now stands at 35.

This is a VERY satisfying & encouraging result. The Club has achieved much and come a long way since its formation in February 2009, and indicates that members were happy to retain their membership in a progressive Radio Club and more importantly, a Club with a happy and friendly environment.

Non Members who would like to join the Club, please contact the Membership Officer, Tony VK7AX, for a Membership Application Form.

eQSO Chat Room

The Club now has a chat room available on eQSO courtesy VK7AX.

The Server and chat rooms can be found on eQSO under the Call sign of VK7AX.

Two Rooms are available at the moment, “101English” and “ATV & SSTV” Chat.

An eQSO RF gateway with a link to the VK7RTV 2M. Repeater is permanently connected to the 101ENGLISH Room, which effectively means all 2M. VK7RTV repeater bothway traffic is available when connected to the 101ENGLISH Chat room of VK7AX. It is suggested that NON RF type traffic use the “ATV & SSTV” Chat Room where it is more private and clients need not worry about being connected to a repeater network.

Amateurs interested in eQSO can download the software which is free and available at <http://www.eqso.org> Alternatively the link can be found on the Club’s Web Page.

Registration of the software is the same procedure as EchoLink in that applicants need to verify that they are licensed amateurs by submitting a copy of their current Lic. to the eQSO Admin Team. Once the Station is verified, a user password and Registration Key is returned by email within 24 hours.

Interested persons may care to note that the Club’s nightly Amateur Radio Broadcasts and Podcasts, including the WIA National & VK7 Regional news can all be heard by connecting to this eQSO Chat Room.

Finally A very big thank you to Jim VK7JH for conducting the WIA National News & Regional News Relays, and filling in during the time Tony VK7AX was away on holidays. Its people like Jim who step up to the plate when required that ensure the continuation of our Club’s services.

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 – North West Tasmania Amateur Television Group

SOUTHERN NEWS

WICEN Tasmania (South)

Members of WICEN South and WICEN groups from CCARC and NTARC descended, or ascended as the case may be, on St Helens last weekend to provide checkpoint communications for 40, 80 and 160 km equine endurance rides. The 160 km, or “100 miler” ride was to test the course proposed for the 2012 Tom Quilty national championships, which will be held in Tasmania in the St Helens area. 2009 saw the ride in Victoria and it’s to be near Tamworth in New South Wales this year. Tassie expects about 200 riders in 2012, which will see a fast and furious pace of on air reporting from checkpoints.

The 100 miler ride starts at midnight and continues over five legs, with one hour breaks between each leg. There were 12 checkpoints along the St Helens course. The first rider completed the course in 18 hours and the last in 23 hours, including breaks. Fortunately, the course was relatively dry, morning mist and frost being the only precipitation. Visibility was also reduced by a forestry burn involving almost the whole of Leg 1. Though lit the week prior, it was still burning as we left St Helens on Sunday morning. It did provide hotspots for checkpoint crews to attempt to stay warm, though not enough to beat the lowest overnight temperature reported from checkpoints of minus 3.9 degrees. Garry VK7GJD had to abandon his bed at ground level and climb into the back of his vehicle to escape the smoke accumulating in the ground mist.

Horse endurance riding is a balance between maintaining a good pace and maintaining the mount in good condition. Riders are disqualified if the horse’s vital signs have not returned to set levels within a short time of returning to Base at the end of each Leg. Horse welfare is paramount. Checkpoint operators are well down the chain, and have to be self reliant and contained! Vet checks were offered for some radio operators but were rejected, probably due to the size of some of the probes used to measure internal temperatures.

The test run highlighted a number of communications issues to be managed and planning is already underway.

The 2012 Tom Quilty will be a major event with horses and riders travelling from all parts of Australia to compete. Like last weekend, it will be based at the St Helens recreation ground. It’s a also a great opportunity to promote Amateur Radio and to maybe combine a family holiday break with some Amateur radio and worthwhile volunteering in support of a terrific family sport. Pencil in September 2012 for what will be a great radio event as well as an equine one.

Pictures from last weekend can be found from the link in the web edition of this broadcast

http://tas.wicen.org.au/Photo_pages/sthelens1005.html

Similarly, a map of the course

<http://maps.google.com.au/maps/ms?hl=en&ie=UTF8&msa=0&msid=116876763353176361571.00046ffd8f640a9c8cf15&z=12>

The course map has been updated to reflect the track of one rider who carried a back pack APRS unit.

(73, Roger, VK7ARN via the WICEN North Mailing List)

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

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 this coming Wednesday night, June 2 starting at 8pm in the Queen's Domain Clubrooms.

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

(REAST Committee)

ATV Experimenters Night

It was great to see so many come up to the domain last Wednesday night and a big welcome to Vic Kitney VK6VK formerly VK7VK who was guest of Graham VK7FGAA, Vic was visiting for the Channel 6 TV 50th reunion. It was a real surprise to Alan VK7KAJ who heard Vic's voice and could believe his ears! Alan and Vic spent much time down at Mawson base during Vic's time with the Antarctic Division. It was also great to see Roger Cripps our most recent Foundation Licencee VK7FRJB, we look forward to hearing Roger on the air.

I also noticed that Patrick who was VK2FPJB now has his VK7 call of...you guessed it....VK7FPJB, on ya Patrick!

We started with a show and tell in the clubrooms of a beautifully made voltage bridge made by PYE that Graham brought along. We then moved to the show and tell on ATV with Justin VK7TW showing an interesting fault on a 2.4GHz wireless card that he picked up at the Resource Tip shop for \$1. Suffice it to say he now has a working card with a minimum of repair.

Justin VK7TW then showed a GeoCoin that he was taking with him to Canberra to deposit in a geocache in Canberra. This coin started in the Riverland of South Australia and then went into Victoria, Tasmanian, back to Victoria and ended up in Tassie again.

<http://geocaching.com/track/>

Our video presentation was the screening of one of the 1983 DXPedition to Heard Island videos called – “The Ship that Shouldn't Have”. This is a fascinating record of the perilous journey down to Heard Island in an interesting ship. This presentation went out on ATV and received some great comments.

We take a break next week as we have our monthly presentation night but will get back underway on Wednesday June 9th at 7:30pm.

Hope to see you along.

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

(73, Justin, VK7TW)

MORSE NEWS

RSS Morse Feed Free Program

Bob Denny has developed free and open source Windows application called "RSS Morse" that reads RSS news feeds and outputs Morse Code on your computer's speaker or on a physical telegraph sounder via serial cable.

It will send International or American Morse Code, and has adjustable CW radio tone, some old-fashioned spark-gap CW sounds, and several telegraph sounder sounds. You can control the character speed separately from the code speed for Farnsworth effects.

Pre-loaded with Associated Press news feeds via Yahoo News. For a peek at the help file for the program take a look at the weblink that can be found on the email and internet editions of this broadcast:

<http://morse-rss-news.sourceforge.net/>

Enjoy!

(73 de Bob Denny via the FIST Downunder Newsletter)

SATELLITE NEWS

Negai 437.305 - Reception Reports Needed

An email was posted on the ZLhams email list requesting reports from the Negai satellite whose orbit is now apparently favouring the Southern Hemisphere. The gist of what it said is:

Toyoshige Kamei JA3SGR has requested reception reports from southern hemisphere stations of the 437.305 MHz beacon on the Amateur Radio satellite Negai launched May 21.

Negai was built by students at the Soka University in Tokyo and is in a low inclination 30 degree orbit.

Toyoshige would appreciate any reports from Amateurs in the Southern hemisphere. They should be sent to the Soka University Kuroki Laboratory. Email: kurokilab.sokags@gmail.com

<http://tinyurl.com/Negai>

(73 Trevor M5AKA via the AMSAT-VK Mailing List)

TECHNOLOGY NEWS

Drive to increase car security

A new encryption technique increases security without draining the key's battery.

Most drivers love the convenience of remote central locking - the car doors are locked or unlocked just by pressing a button on the key. These systems are not particularly secure, however, as a potential car thief can, for example, use an antenna to eavesdrop on the radio signal and create a second key from the captured data on a computer.

The reason for this weakness in security is that the algorithms which encrypt the signals sent from the key to the vehicle are not strong enough. Their code was broken about two years ago. Car manufacturers are therefore using new algorithms to make the radio key systems more secure.

But these algorithms too have a major disadvantage - they are symmetric, their codes are embedded in the key and in the car.

Also, the same coded information is embedded in numerous vehicles from the same production line. Once one code has been broken, numerous cars are at risk.

Research scientists at the Fraunhofer Institute for Secure Information Technology SIT in Garching have now used an asymmetric algorithm to develop a car key prototype for the first time.

The secret is only located in the car key and not in the car as well. Each car key incorporates a different code and this makes the encryption much more secure than when a symmetric algorithm is used. Until now the high computation intensity and associated high energy consumption posed a high barrier against the use of asymmetric algorithms. Now a small cryptographic chip that is particularly energy saving has been developed. In addition, a protocol which minimises computation effort and the amount of data that has to be transmitted has been developed.

http://www.radiocomms.com.au/articles/40456?utm_medium=email&utm_source=Emailmarketingsoftware&utm_content=383943965&utm_campaign=rc_1005&utm_term=Drivetoincreasecarsecurity

(Sourced from the Radio Comms website)

RF TECHNOLOGY NEWS

Mobile spectrum monitoring

The growing need of the spectrum also encompasses challenges in planning the frequency bands and their monitoring to ensure legitimate usage with no interference to other users.

Realising this, Pangtel, in partnership with Rohde & Schwarz (R&S), has selected the ESMD wideband monitoring receiver that offers a range of functions - as a 20 MHz real-time bandwidth and a wide frequency range, the receiver also detects signals quickly and without interruption, and performs accurate signal measurements and demodulation.

Radio monitoring receivers can be used for several purposes, including frequency monitoring in line with ITU guidelines, radio reconnaissance, detection of pulsed signals, searching for jammers and direction finding.

Since the receiver is based on modular hardware and software, it can be quickly adapted to different requirements and expanded for future tasks.

The basic version covers a frequency range from 20 MHz to 3.6 GHz, however. Pangtel has expanded on its options to include the shortwave bands and the microwave range, which enables it to detect frequencies from 9 kHz to 26.5 GHz.

With the use of this mobile monitoring van and the portable test and monitoring equipment already bought by Pangtel, which includes GSM radio network analyser, portable monitoring receiver PR100, directional finders, and spectrum analysers, additional spectrum options incorporated into PR100 have pushed its measurement capabilities to 18 GHz. This system will further push the spectrum monitoring capabilities to 26.5 GHz.

http://www.radiocomms.com.au/news/40459?utm_medium=email&utm_source=Emailmarketingsoftware&utm_content=383943965&utm_campaign=rc_1005&utm_term=Mobilespectrummonitoring

(Sourced from the Radio Comms website)

WEB & EMAIL EDITION EXTRA BITS!!

Probing the heart and soul of Star formation

http://www.sciencenews.org/view/generic/id/59597/title/Probing_the_heart_and_soul_of_star_formation

Artificial butterfly mixes high, low tech (cool video)

http://www.sciencenews.org/view/generic/id/59612/title/Artificial_butterfly_mixes_high%2C_low_tech

FOR KIDS: Dreaming makes perfect

http://www.sciencenews.org/view/generic/id/59040/title/FOR_KIDS_Dreaming_makes_perfect

Hexapod Video

<http://www.youtube.com/watch?v=GDaNkff5Yyg&feature=fvw>

Atoms bring quantum computing closer

<http://www.abc.net.au/science/articles/2010/05/24/2907907.htm>

NASA still listening for Phoenix

http://www.marsdaily.com/reports/NASA_listens_one_more_time_for_Phoenix_999.html

ABC Radio National Science Show MP3s

<http://www.abc.net.au/rn/scienceshow/>

That Sinking Feeling – So Far Away!!

http://www.marsdaily.com/reports/That_Sinking_Feeling_Ebbs_Away_At_Spirit_999.html

Futurists predict fewer butchers, more space pilots – and spare legs for top football stars

<http://www.guardian.co.uk/science/2010/jan/14/futurists-predict-radical-job-changes>

History – The Complete GE Ham News

http://n4trb.com/AmateurRadio/GE_HamNews/ge_ham_news.htm

ISS Tour – 6m

<http://www.youtube.com/watch?v=H8rHarp1GEE>

Copernicus Reburied

<http://www.youtube.com/watch?v=Pbp2LzBSijE>

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=pcY0Eetvsw> - 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: VK7IR

80m: VK7TW

40m: VK7RO

20m: VK7IL

10m: VK7ZGK

UHF CB: VK7ZCR

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.