

VK7 REGIONAL NEWS BROADCAST

FOR SUNDAY 5TH JULY 2009

MAYDAY CALL

Coast Radio Hobart Involved

Last Tuesday afternoon Coast Radio Hobart featured in a rescue 200 nautical miles off New Zealand's North island. The yacht CARENZA with two adults and six children was dis-masted in bad weather, leaving the mast hanging overboard and rigging fouling the keel and propeller.

They activated an EPIRB and a mayday relay was broadcast by Taupo Maritime Radio. Carenza responded to the broadcast but was unable to be heard by Taupo. Coast Radio Hobart then offered to relay all messages between the vessel in distress, Taupo, the tug York Syme, a RNZAF C130 Hercules and the French Navy Ship La Glorieuse.

The skipper of the yacht reported they were safe and well but very scared and wanted to be taken off for the sake of the children. When Coast Radio Hobart advised the crew that the La Glorieuse would be with them in four hours, the children could be heard cheering in the background.

A little while later the warship was able to directly communicate with the yacht and the yacht skipper said to the French Captain, "we are more grateful to you than you will ever know". The La Glorieuse rendezvoused with Carenza at around 11 pm.

It was decided, that for safety sake, a rescue would not be attempted until morning. At 6.30 am, the crew were taken off, and the yacht scuttled. La Glorieuse was due in Auckland Thursday morning.

It was later revealed that the skipper made a makeshift HF antenna, using fishing line, to contact Coast Radio Hobart some 2,500 miles away.

(Barry McCann VK7TBM, Manager, Coast Radio Hobart)

ECHOES OF APOLLO

World Moon Bounce Day – June 27th

Last Saturday was designated World Moon Bounce Day as an amateur radio contribution to the celebrations of the 40th anniversary of man's first landing on the moon.

The event was organized by a US group of amateurs who had access to the Stanford University 45 metre dish and they sought the involvement of some of the larger radio astronomy dishes around the world.

Within Australia the University of Tasmania agreed to take part using their 26 meter dish out at Mt Pleasant near Richmond in Southern Tasmania.

Rex VK7MO and Justin VK7TW were involved and were utilising Rex's amateur 23cm EME equipment. While Dr Jim Lovell of the University of Tasmania willingly offered their dish and the support of the site technician Eric Baynes (VK7BB) it was first necessary to consider what was practical. At our first meeting it became clear that transmitting any sort of high power as required for SSB would be out of the question as the dish is fitted with 5 extremely sensitive liquid helium cooled receivers working from 4 to 22 GHz.

There is no protection for RF and we could not risk damage to these receivers which are involved in ongoing international research programs. Accordingly, the Echoes of Apollo team were advised that we would contribute to the event but as a receive station only.

The feeds and receivers for the 26 metre dish are mounted in a small feed cabin (approx 2 meter cube) behind a Teflon window approx 1 meter in diameter. Within the cabin there is a remotely controlled 3 axis focus frame that allows the feeds and receivers to be moved into the correct focal position depending on which feed is in use. There was space for a 2 GHz non-cooled feed and receiver which fortunately was not required around the time of the Echoes of Apollo event and the University agreed that this could be removed and replaced with a 23 cm antenna.

There is over 100 meters of LDF-4-50 coax between the dish and the control building where we could operate and for this reason we decided to down-convert at the feed and receive on 144 MHz. Eric constructed a down-converter and the VK7MO EME station provided pre-amplifiers, 144 MHz receiver, GPS frequency reference, computer running WSJT and bandpass filters at 1296 MHz and 144 MHz to limit interference from microwave systems at the nearby Hobart airport.

Following tests the original helical feed was replaced with Rex's 1296MHz Septum feed with choke ring and in the end a sun noise of 25 dB was achieved which was within a few dB of what could be expected.

Tests were now conducted with Doug, VK3UM, who runs 400 watts and an 8.6 metre dish. Doug's SSB came through at 5/6 sufficient to be heard in a room filled with children – so with just four days to go we reported to the “Echoes of Apollo” team we were ready to go.

With the RX side resolved our minds turned to the possibility of transmitting QRP at a few tens of milli-watts to avoid any possibility of

damaging the radio astronomy receivers. A quick calculation suggested that we should be able to work the 25 metre Dutch station PI9CAM at less than 10 milli-watts using JT65 and after an email Jan, PA3FXB, told us they would be delighted to try JT65 at 10 milli-watts. While we did not have time to test the system until the day of the event WSJT echo testing on the day gave a signal level of -31 dB at 10 milli-watts and this was improved to -27.8 dB by careful adjustment of the focus of the feed.

On the day our first reception was from Doug, VK3UM, at 5/7 who we worded up by telephone to talk to the children who had arrived. It was a joy to see the smiles when they heard their names off the moon. While as hams we could copy Dave, VK2JDS, on SSB at 5/2 it was not quite strong enough for the children to resolve the voice, but using JT65 messages saying hello to the children from the moon were received and some great reactions resulted with the children taking pictures of their names coming through on the computer screen from the moon.

The Stanford group was received at around 5/7 for a short period but then had to remove their feed to repair a pre-amp. Later we had various children and the media visit and arranged for Doug, VK3UM, to be the voice from the moon with great effect. A big thank you to Doug.

Many other stations were on SSB including W5J, 5/8; N6JMC, 5/8; VK5MC, 5/6; SP6JLW; 5/6 and N6BDE, 5/8.

Later in the night as the European window opened we could copy Dan HB9Q on his 15 metre dish calling CQ on JT65c at -1 dB. The PI9CAM team using a 25 metre dish completed quickly with us at 10 milli-watts giving us -22 dB and again at 3 milli-watts with signal levels of -26 dB. An attempt at 1 milli-watt was not successful. Never-the-less with a 3 milli-watt completion we were.....pardon the pun....

“over the moon!”.

The full event report will appear in the August edition of AR Magazine along with some great photos of the event.

There was around 5 hours of video taken during the day and this will be edited and played at a REAST ATV Experimenter's night in the near future.

We acknowledge the support of the University of Tasmania and a big thank you to Dr Jim Lovell in providing access to the dish and especially the efforts of the site technician, Eric Baynes VK7BB in making this a very successful exercise which allowed us to explore the limits of QRP EME.

<http://www.news.com.au/story/0,27574,25712702-5014239,00.html>

(Rex VK7MO and Justin VK7TW)

UPDATE FOR 2010 CALLBOOK

As the VK7 representative on the WIA Technical Advisory Committee Rex, VK7MO, is seeking input to update the 2010 callbook for the:

Repeater Directory;

Beacon Directory and

Packet Radio Directory.

If you are the licensee of one of these facilities could you please check the current callbook and send any amendments or corrections to Rex by the 20th of July.

His email address is on the internet and email edition of this broadcast.

Amendments should also include advice that a facility is no longer operational and should be removed.

rmoncur@bigpond.net.au

(73, Rex, VK7MO)

NON-COMMERCIAL FOR SALE & WANTEDS

Wanted

We have a wanted ad today from Brian VK7FAYE who is looking for a recent copy of the World Radio and Television Handbook. Up to two years old would be suitable.

If you have a copy please contact Brian VK7FAYE on 64251560, daytime only.

(73, Brian, VK7FAYE)

VK7 EVENTS CALENDAR

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

NTARC – July 8 – 7:30pm Block B of Alanvale campus of Tasmanian Polytechnic - VK7ZJA on 3G mobile networks.

REAST – July 8, 15, 22 & 29 – ATV Experimenter's Group Queen's Domain Clubroom Studios from 7:30pm

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

NWRESG – July 11 - North West Radio and Experimenters Social Group gathers at the Blue Wren cafe at Lonah at 10.15 am

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

NORTHERN NEWS

Northern Tasmanian Amateur Radio Club

Its nearly that time of month again – the Northern Tasmanian Amateur Radio Club is holding its July meeting this Wednesday evening at the Alanvale campus of Tasmanian Polytechnic, in the usual upstairs location of B block.

Bill VK7MX will be at the helm while Al VK7AN is away, and Jason VK7ZJA is going to describe the intricacies of 3G mobile networks and mobile network planning. We kick off at 7.30pm.

We'd better also send some well wishes to Ann VK7FYBG, who'll be briefly visiting hospital through the week... hope all goes well Ann.

To the relief of many, NTARC has renewed its Public Liability insurance through the WIA. This goes to show that there are real & tangible benefits for the club to be affiliated with the WIA, and that you can share in these benefits. If you're not a WIA member, perhaps you should consider joining and showing your support too?

Hope to see you at the meeting.

Thanks from

(Jason VK7ZJA, NTARC Secretary)

Roger VK7ARN reports that Phil VK7JJ was 5/9 on the traveller's net and he has posted many great photos of the trip thus far at the address that can be found on the email and internet editions of this broadcast.

<http://www.perite.com/newsite/trip-5.htm>

NORTH WEST NEWS

Cradle Coast Amateur Radio Club (CCARC) News

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

The Cradle Coast Amateur Radio club held its first designated "social" meeting, where the official business took about 10 minutes and then Bill, VK7MX gave his very interesting squid pole presentation over the course of the next hour and a half.

The members enjoyed the session immensely and several expressed a desire to start building their own in the near future.

Many thanks to Bill for travelling to Penguin to make this session such a success.

The club would also like to welcome two new members, Steve Jones VK7ZSJ and Chris Gray VK7KEE

Just a reminder that the Radio Amateurs Old Timers club news broadcast from VK3OTN can be heard on VK7RMD, Mt Duncan repeater 146.625mHz at 8:30pm this Monday evening, courtesy of VK7EM. It is broadcast on the first Monday of every month.

Members, other amateurs and even non amateurs are reminded that notification of the experimenters group social activities are listed on the home page of the Cradle Coast Amateur Radio Club's website and the address can be found on the email and internet editions of this broadcast and all are welcome to attend. So if you are interested in radio make it a point to come along to the next gathering of the North West Radio and Experimenters Social Group, which will be held at the Blue Wren cafe at Lonah on Saturday the 11th of July at 10.15 am

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

(David Cleland, VK7DC, Secretary, CCARC)

SOUTHERN NEWS

70cm repeater now finally operational in Huonville!

Hayden VK7HAY lets us know that the VK7RCH 70cm repeater to cover the Huon has been installed and running on 438.575 RX, 433.575 TX, no tone required.

It is currently running 20W. Future project will be to add Echolink facilities to it.

Just reminding listeners about VK7RTC 438.600 on Mt.Nelson in Hobart.

Brian VK7RR has spent much time and effort on this repeater over the years and it would be good to hear some increased activity on the 70cm band.

73 hope to hear you on 70.

(Hayden VK7HAY)

Radio and Electronics Association of Southern Tasmania

July Presentation

REAST's June presentation was given by the very funny Harvey VK7TED. The presentation started with an outline of the many digital modes available to the amateur.

Harvey then went on to the Global ALE High Frequency Network. He has setup his radio to scan the various digital frequencies, beacon, listen and log those stations that are heard in the network.

Harvey gave a demonstration using two laptops connected together at the sound card interfaces to demonstrate the handshaking and some of the functionality.

A very interesting presentation, thanks Harvey.

The network uses freeware software by Charles Brain G4GUO and is a full Mil-Spec Automatic Link Establishment operation using HF SSB or ham radio transceivers.

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

<http://hfink.com/>

<http://hfink.com/software/>

(Justin, VK7TW)

REAST Education and Training

Congratulations and welcome to the bands to Thomas van Geytenbeek VK7FTOM, Robin Smith VK7FRSA and James Cooper who were all

successful Foundation Licensees in our last foundation licence session and assessment.

The next foundation training and practical assessment session will be in November please let Reg know if you are interested.

Contact Reg VK7KK for more information on mobile: 0417 391 607 or email: regemm@ozemail.com.au

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

(Reg, VK7KK, REAST Education Officer and Assessor)

REAST ATV Experimenters Night

We get back underway this Wednesday night with our ATV experimenter's nights.

We have some great material lined up for the next few ATV nights. Video of the 3cm Digital Record on Mt Barrow, Echoes of Apollo, Harvey's Global ALE High Frequency Network talk to REAST and the third and final hour of the three one hour presentations on the HPSDR project by Phil Harman VK6APH and much much more.

http://www.tapr.org/kits_merc.html

See you Wednesday night around 7:30pm for another great night of ATV and experimenting.

See you there.

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

(73, Justin, VK7TW)

EVENT NEWS

GippsTech2009 registration:

Peter VK3KAI reminds us that if you want meals and a real name tag, you need to register for GippsTech2009 by this evening, 5 July.

We need to close off the lists so that we can advise our catering teams of numbers. We can cope with additional people, BUT there will not be any food available for you at the main activities.

Details and the registration forms can be found at the EZARC website which can be found on the email and internet editions of this broadcast.

www.vk3bez.org

(Peter VK3KAI Gippstech Convenor via VK-VHF Mailing list)

SATELLITE NEWS

Arianespace launches "largest commercial satellite"

TerreStar-1 is the largest commercial communications satellite ever launched. The estimated cost of satellite and launch is over \$500M.

The launch took place from Cayenne in French Guiana on July 1. An Ariane rocket has launched from French Guiana the TerreStar-1 satellite, billed by the Arianespace rocket launch company as "the largest commercial communications satellite ever launched".

TerreStar blasted off from the European Space Agency's (ESA) launch centre in Kourou, French Guiana. It was released into orbit twenty-six minutes later.

Virginia-based TerreStar Corp TTSR.O plans to provide hybrid telecommunications to satellite and cellular handsets about the same size as a conventional smartphone.

The satellite is designed to provide service throughout the United States and Canada. TerreStar weighed 6.9 metric tonnes (15,200 lb) at lift-off and was built by U.S. satellite manufacturer Loral Space & Communications Inc.

The current Ariane-5 rocket series is capable of launching payloads of up to 10 tonnes. The company plans to expand its launcher fleet with the introduction next year of Russian Soyuz rockets to be launched from the Kourou base.

<http://www.reuters.com/article/rbssTechMediaTelecomNews/idUSL140858220090701>

(Article by Laurent Marot, Alexander Miles and Louise Ireland via Reuters.com website)

TECHNOLOGY NEWS

Scientists Make Radio Waves Travel Faster Than Light

Scientist John Singleton insists that Albert Einstein wouldn't be mad at him, even though at first blush Singleton appears to have twisted the famous physicist's theories about light into a pretzel.

Most people think Einstein said that nothing can travel faster than the speed of light, but that's not really the case, Singleton said.

Einstein predicted that particles and information can't travel faster than the speed of light but phenomenon like radio waves? That's a different story, said Singleton, a Los Alamos National Laboratory Fellow.

Singleton has created a gadget that abuses radio waves so severely that they finally give in and travel faster than light.

The polarization synchrotron combines the waves with a rapidly spinning magnetic field, and the result could explain why pulsars which are super-dense spinning stars that are a subclass of neutron stars emit such powerful signals, a phenomenon that has baffled many scientists, Singleton said.

"Pulsars are rapidly rotating neutron stars that emit radio waves in pulses, but what we don't know is why these pulses are so bright or why they travel such long distances," Singleton said. "What we think is these are transmitting the same way our machine does."

And beyond explaining what has been a bit of a mystery to the astronomical community, Singleton's discovery could have wide-ranging technological impacts in areas such as medicine and communications, he said.

An application could be in very targeted chemotherapy, where a patient takes the drugs, and the radio waves are used to activate them very specifically in the area around a tumor, he said.

If Einstein were still alive, he probably wouldn't be all that surprised by the discovery, Perez said, even if it does seem on the surface to conflict with some of his theories.

More info can be found at the link on the email and internet editions of this broadcast.

http://current.com/items/90301786_scientists-make-radio-waves-travel-faster-than-light.htm?xid=ch60

(Sourced from the current.com website via Ben VK7BEN)

WEB & EMAIL EDITION EXTRA BITS!!

Fireworks Photo Hints:

http://www.tamron.com/enews/archives/may07_learn_seasonal2.asp

10GHz References:

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

<http://www.w1ghz.org/10g/antennas.htm>

<http://myweb.tiscali.co.uk/g4nns/FeedHorn.html>

<http://www.g3pho.free-online.co.uk/microwaves/whitebox.htm>

<http://www.qsl.net/ve3cvg/antennas/10ghz/index.html>

<http://www.ukw-berichte.de/English/ukw-docs/antennas/procom/10GHzE.html>

<http://www.ve1alq.com/dishfeeds/dishfds.htm>

<http://www.g3pho.free-online.co.uk/microwaves/index.htm>

<http://w3ref.cfn.ist.utl.pt/cupido/reflock.html>

<http://w3ref.cfn.ist.utl.pt/cupido/mw.html>

<http://w3ref.cfn.ist.utl.pt/cupido/nfsa.html>

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

Ant Mega Colony

http://news.bbc.co.uk/earth/hi/earth_news/newsid_8127000/8127519.stm

If there is something out there – they would be watching....

<http://abstrusegoose.com/163>

The following links are courtesy of the Fists Down Under Newsletter:

Incredible Radio Tales www.radiomarine.org/tales.htm

The History of Amateur Radio www.astrosurf.com/luxorion/qsl-ham-history.htm

DX Resource Guide www.dxzone.com

Ham Radio Cartoons www.danscartoons.com/ham_radio_cartoons.htm

Another Resource Site www.rfcafe.com

Do you have some interesting amateur related 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 Update

<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

160m: VK7DM

80m: VK7EM

40m: VK7JGD

20m: VK7AR

10m: VK7ZGK

UHF CB: VK7FTAZ

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.