



ZL2VH Newsletter — September 2014

President's Report

A recent site inspection revealed that some maintenance work is required to our installations at Climie. Particularly the north hut door and framework. As a minimum the metalwork needs replacing to keep the inside of the hut free from water and rodent ingress.

It was suggested that the club consider replacing the existing hut with a larger version. This would be a major project for the club and would need fund-raising and be project managed.

There will be a meeting on Friday the 5th of September to discuss the work that is required.

The options to be discussed at the meeting are:

1. Replace the existing North Hut Door and frame = estimated cost approx \$2000
2. Replace the existing North Hut with a larger concrete tank. Cost \$????
Steps:
 - Source Concrete Tank/Hutt
 - Source and fit door
 - Remove equipment from north hut and remove hut
 - Prepare ground for concrete pad / resource consent?
 - Pour concrete pad
 - Transport and install new tank/hut
 - Install equipment in hut
3. Do nothing.

And finally, many thanks to Brian ZL2CHV for volunteering to fill the vacant Exam Supervisor position.

73's and good DX

Simon ZL2BRG

DRM and DAB+

For those interested in digital radio broadcasting John ZL2TWS has placed an order for DRM radios from the supplier Peter Senger in Germany. The radio model is the NewStar DR212B that receives DRM/DAB/DAB+/AM/FM. The cost of the radio excluding shipping and GST is US\$185. 5000 units need to be ordered before NewStar will go into production. Delivery is 12 months from now but pre-production orders are being taken. Go to www.pfs-digitalradio.com for more information.

Got to www.drm.org for more DRM information and broadcaster list. Many stations are already using the shortwave HF bands. Radio New Zealand International have been using DRM for many years and are a world leader in this type of broadcasting.

John already uses the previously available DR111A radio with great success. FM stereo quality on HF and in many countries using the AM band. New Zealand has not yet started AM band DRM but currently has DAB+ VHF band digital broadcasting.

DAB and DAB+ have been in service in UK and Europe for many years. Australia is setting up more stations and has been testing like NZ for around 6 years. Australia and NZ use the DAB+ system. In Wellington at Mt KauKau, DRM+ is transmitting on band 3. The antenna is a Kathrein dual Dipole array at about the 41 m level with a bearing of 120 deg. Frequency is 192.35 MHz Ch 7c.

Those of you with SDR radios will already be tuned into DAB+ The Newstar DR212B radio gives the advantage of both DRM and DAB. This will be like the new CSi CS7000 D-Star/DMR MotoTRBO radios soon to be available for the amateur bands.

Branch 63 Repeater Update

This month a order has been placed for a new 4 dipole stack to be fitted on the 730 pole. The new band pass filters have arrived for 5425 and will be fitted in due course. The 6 m repeater 3950 was taken off air due to receiver failure.

3 cm Beacon

Construction continues.

1292 23 cm FM Repeater

On air.

860 D-Star Repeater

On air.

5425 D-Star Repeater

Running on 730's faulty 4 dipole stack on the North pole. The new filters have arrived and awaiting John's return for installation.

730 2 m FM Repeater

Running on New 4 dipole stack on the south pole. Reports have been excellent.

53.950 6 m FM Repeater

Off Air due to suspect receiver failure.

73's and good DX

Simon ZL2BRG

US aerospace firm outlines New Zealand-based space program

Article sourced by John ZL2TWS.

A United States aerospace company is aiming to make New Zealand one of the exclusive group of countries with a space program by promising a revolutionary new satellite-carrying rocket for a fraction of the current satellite launch costs.

Rocket Lab announced Tuesday that it had developed a light-weight, carbon-composite rocket, named Electron, at its Auckland plant and hoped to offer small satellite launches for less than 5 million U.S. dollars, compared with a current average price of 133 million U.S. dollars.

The company, which has received research and development funding from the government, was being backed by Silicon Valley venture capital firm Khosla Ventures, Rocket Lab founder and New Zealander Peter Beck said in a statement. The lead-time for businesses to launch a satellite would be cut from years to just weeks and the company already had commercial commitments for 30 launches, said Beck.

At 18 meters in length, 1 meter in diameter and weighing more than 10 tones, Electron would be the first vehicle of its class capable of delivering payloads up to 100 kg into low Earth orbit at an altitude of about 160 km.

Businesses faced a severe barrier in launching satellites as rockets had remained prohibitively large and expensive, despite the trend for satellites to become smaller, more capable and more affordable, he said.

“Along with benefits for commercial enterprises, cheaper and faster space access has the potential to lead to more accurate weather prediction, global high speed Internet access, as well as real-time monitoring of the impacts of human development,” said Beck. New Zealand was in an ideal launch position for a variety of different types of orbits and plans were underway to build a space port at several potential locations.

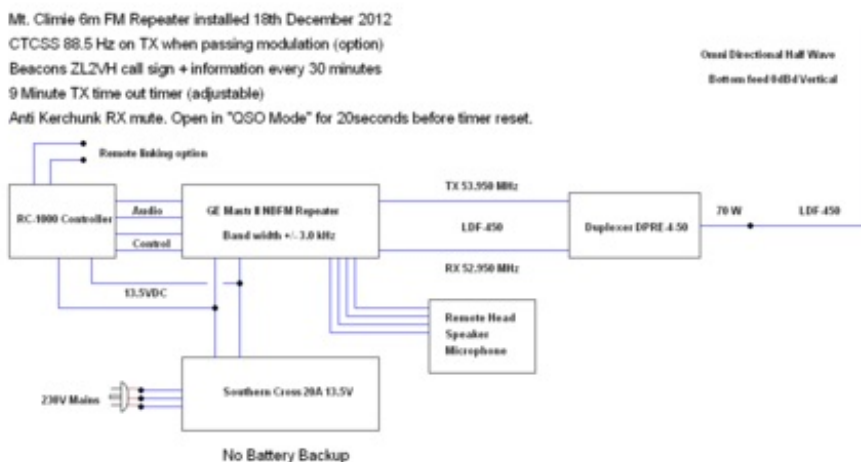
Powered by liquid oxygen and kerosene, Electron would have a lift-off mass of 10,500 kg and a

possible top speed of 27 500 km per hour.

—AMSAT News Service Weekly Bulletins

Repeater Diagrams

John ZL2TWS has begun preparing block diagrams for each of the repeaters the club has at Climie, with the 395 6 m Repeater featured this month.



GE Repeater donated by Mark ZL2UFI and John ZL2TWS
 Antenna donated by Jens ZL2TJT and Gerry ZL2TDN
 Southern Cross PSU donated by Mark ZL2UFI
 Funding administration by Gavin ZL2ACT
 Project administration by Mark ZL2UFI

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395 6 m FM Repeater Block Diagram

Editor's note: The full-resolution versions cannot be fit nicely in the newsletter, so they must be scaled. The full-sized images can be found in the resources area of [our repeaters web page](#).

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