BREAKOUT

The Newsletter of the Hastings and Napier Amateur Radio Clubs

Hastings Branch 13 NZART – Napier Branch 25 NZART

Volume 8, Issue 4, April 2010

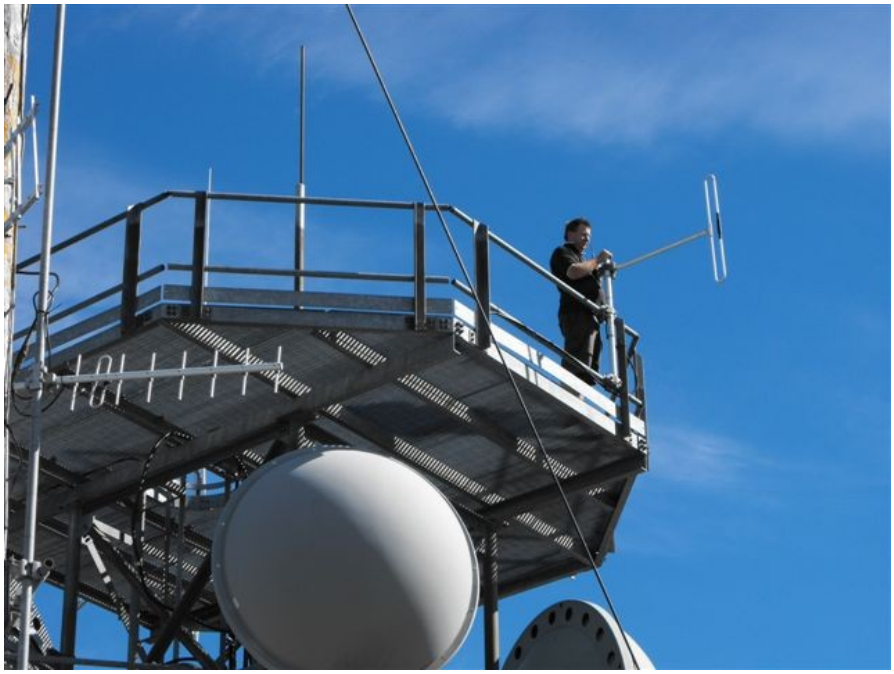
Hastings Br 13 Club Calls
ZL2AS
ZL2QS

Napier Br 25 Club Call
ZL2GT

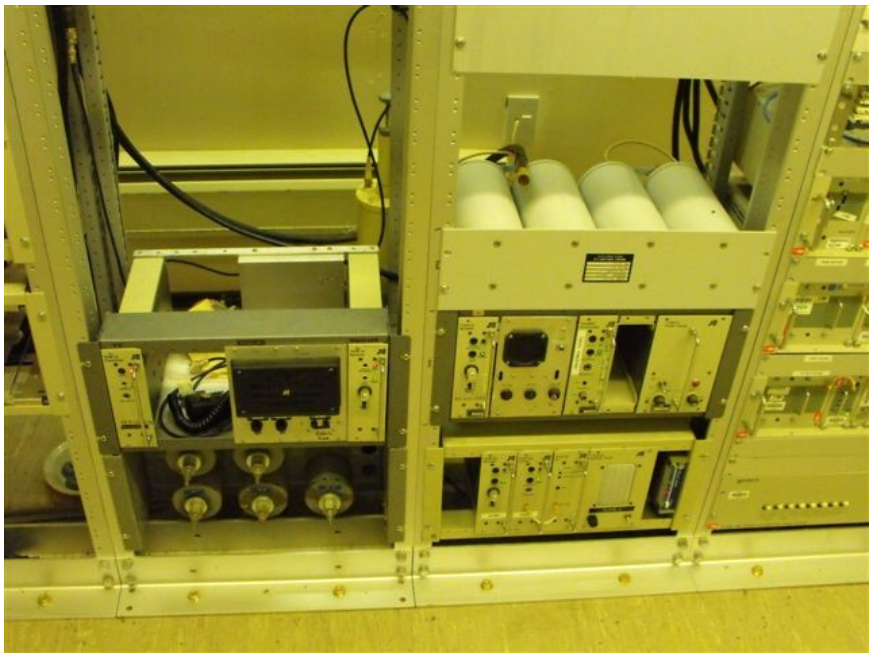
IRLP Node 6793 147.250

Branch Nets
9.00 AM Sunday Morning
3615 Hz
147.250 MHz

Editor
John Newson
ZL2VAF



Warren, ZL2AJ checking the APRS aerial at Taraponui on 27 March 2010.



Left side is ' 725 repeater, right side top is ' 8425 repeater and below the APRS digipeater. Taken 27 March 2010.

http://groups.yahoo.com/group/zl2as/

Join the KIWI DX Group
Talk to ZL2AL for Details

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Club Call: ZL2AS and ZL2QS

Club Nights: Fourth Wednesday each month at 7.30 pm Surf Club Rooms, Windsor Park, Hastings

Hastings Branch 13 - President's Report

Hi all.
Good news this month. We welcome 6 new members and new hams to our hobby. Sue Leicester ZL2DC, Daryle Caldwell ZL2GU, John Burns ZL2BG, Kirk Hine ZL2KY, Eddie Ross ZL2DV and Sassie Berger ZL2GQ.
We hope you all enjoy you new found hobby. This again proves that an amateur license can be done in a weekend, as 6 from 6 all passed. We are refining our methods of getting people through the course. Aside from that it is a great pleasure to help and assist newbies into the fold.
Tests performed at Kahuranaki suggest that relocating the antennas from the North to West corner of the tower will improve coverage into the Omakere area, without reducing the coverage in other areas. This will happen after some other maintenance to remove the noise heard earlier in the year.
This Wednesday during the meeting we will discuss a plan I have to expose our hobby into the public domain. Be there Wednesday to help shape this plan.
Reminder - If your updating your will, remember to add in where your radio equipment will end up, or make sure your family are aware of your wishes. Also dont forget to update your details in the RSM smart database (website) if you move house. This is a legal requirement.
Conference is being held in Auckland this year. If you are planing to go get your forms in now (found in breakin) to avoid late fees.
Our form 10 applications have come back for minor adjustments and have been approved so will be processed in the coming weeks.
See you Wednesday night.
Warren ZL2AJ

Membership Subscriptions are OVER DUE

Please pay $20 to
Hawkes Bay Amateur Radio Club,
Westpac 030642 0733310 00
or Dave Walker at Apex coms.
or Bill Lowes, 27 St.Hill Lane, Havelock North, 4130.

NAPIER BRANCH 25

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Committee Meetings: *Third Monday of the month 7pm at Club Rooms*

Club Call: ZL2GT

Club Nights: First Wednesday each month (except January) 7.30pm at the Club Rooms: 123 Latham Street Napier

NAPIER NEWS...

The next Napier meeting will be at the clubrooms on Wednesday 5 May at 7.30 pm. There will be a speaker following the remit discussion so bring along your April/May Break In for the quick voting on remits to conference 2010 at Auckland.

At our last meeting Lee ZL2AL demonstrated how to quickly prepare Powerpoint presentations for computer projections. Lee and Peter ZL2LF also gave a demonstration of computer logging. Thanks Lee and Peter.

Lee has acquired all of the parts for the next kitset project – a computer – rig interface for digital modes ready for the kitset construction nights which will follow a digital modes demonstration at the July meeting.

Hawkes Bay cleaned up in the Jock White Field Day contest ZL2G at Taits farm Tangoio won overall with the highest national score and won the Patea Trophy for the central region. Hastings club ZL2AS won the phone only section and the other Hastings call ZL2QS, operated by Peter ZL2LF and team won the home station section. Well done all. All we need is a CW only and QRP stations to collect all of the prizes. The next NZ contests are the Sangster Shield CW contest in early May and the Trans-Tasman series from May through winter. The international CQ WPX (prefixes) contest is on the last weekend in May.

Stan ZL2ST

New Hams

On the 17th and 18th of April there was a course for new hams. All six attendees attained their ham licences.

Welcome to Sue Leicester ZL2DC, Daryle Caldwell ZL2GU, John Burns ZL2BG, Kirk Hine ZL2KY, Eddie Ross ZL2DV and Sassie Berger ZL2GQ.

A big thank you to the team that ran the course – Warren ZL2AJ, Peter ZL2LF and Lee ZL2AL

The Gear That Keeps London's Pirate Radio Hidden

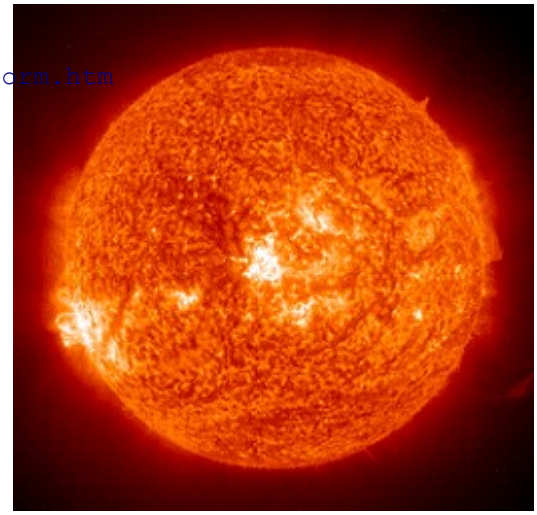
Untraceable infrared links. Backpacks full of back-up transmitters. Cloak and dagger secrecy. Hundreds of pirate radio stations broadcast in London every day, but this 20 minute documentary shows that only the tech-savviest stay a step ahead of the police.
http://gizmodo.com/5503538/the-gear-that-keeps-londons-pirate-radio-hidden

Listen From The Netherlands

An online Software Defined Receiver for 7 bands from LF to 20m, use with broadband internet and any web browser that supports both Java & Javascript. Receiver is located in the Netherlands.
http://websdr.ewi.utwente.nl:8901/

Super Solar Storms

http://science.nasa.gov/headlines/y2003/23oct_superstorm.htm



- Scientists are beginning to understand a historic solar storm in 1859. One day, they say, it could happen again.

http://www.nasa.gov/http://www.nasa.gov/

October 23, 2003: Newly uncovered scientific data of recorded history's most massive space storm is helping a NASA scientist investigate its intensity and the probability that what occurred on Earth and in the heavens almost a century-and-a-half ago could happen again.

In scientific circles where solar flares, magnetic storms and other unique solar events are discussed, the occurrences of September 1-2, 1859, are the star stuff of legend. Even 144 years ago, many of Earth's inhabitants realized something momentous had just occurred. Within hours, telegraph wires in both the United States and Europe spontaneously shorted out, causing numerous fires, while the Northern Lights, solar-induced phenomena more closely associated with regions near Earth's North Pole, were documented as far south as Rome, Havana and Hawaii, with similar effects at the South Pole.

What happened in 1859 was a combination of several events that occurred on the Sun at the same time. If they took place separately they would be somewhat notable events. But together they caused the most potent disruption of Earth's ionosphere in recorded history. "What they generated was the perfect space storm," says Bruce Tsurutani, a plasma physicist at NASA's Jet Propulsion Laboratory.

To begin to understand the perfect space storm you must first begin to understand the gargantuan numbers with which plasma physicists like Tsurutani work every day. At over 1.4 million kilometers (869,919 miles) wide, the Sun contains 99.86 percent of the mass of the entire solar system: well over a million Earths could fit inside its bulk. The total energy radiated by the Sun averages 383 billion trillion kilowatts, the equivalent of the energy generated by 100 billion tons of TNT exploding each and every second.

But the energy released by the Sun is not always constant. Close inspection of the Sun's surface reveals a turbulent tangle of magnetic fields and boiling arc-shaped clouds of hot plasma dappled by dark, roving sunspots.

Once in a while--exactly when scientists still cannot predict--an event occurs on the surface of the Sun that releases a tremendous amount of energy in the form of a solar flare or a coronal mass ejection, an explosive burst of very hot, electrified gases with a mass that can surpass that of Mount Everest.

Right: These Northern Lights appeared over Wisconsin on Oct. 22, 2003. During the superstorm of 1859, such lights appeared as far south as Cuba and Hawaii.

What transpired during the dog days of summer 1859, across the 150 million-kilometer (about 93 million-mile) chasm of interplanetary space that separates the Sun and Earth, was this: on August 28, solar observers noted the development of numerous sunspots on

the Sun's surface. Sunspots are localized regions of extremely intense magnetic fields. These magnetic fields intertwine, and the resulting magnetic energy can generate a sudden, violent release of energy called a solar flare. From August 28 to September 2 several solar flares were observed. Then, on September 1, the Sun released a mammoth solar flare. For almost an entire minute the amount of sunlight the Sun produced at the region of the flare actually doubled.

"With the flare came this explosive release of a massive cloud of magnetically charged plasma called a coronal mass ejection," said Tsurutani. "Not all coronal mass ejections head toward Earth. Those that do usually take three to four days to get here. This one took all of 17 hours and 40 minutes," he noted.

Below: SOHO coronagraphs captured this movie of a coronal mass ejection (CME) heading toward Earth on Oct. 22nd. NOAA forecasters expect the CME to cause a geomagnetic storm when it reaches Earth on or about Oct. 24th, but not as severe as the superstorm of 1859.

Not only was this coronal mass ejection an extremely fast mover, the magnetic fields contained within it were extremely intense and in direct opposition with Earth's magnetic fields. That meant the coronal mass ejection of September 1, 1859, overwhelmed Earth's own magnetic field, allowing charged particles to penetrate into Earth's upper atmosphere. The endgame to such a stellar event is one heck of a light show and more -- including potential disruptions of electrical grids and communications systems.

Back in 1859 the invention of the telegraph was only 15 years old and society's electrical framework was truly in its infancy. A 1994 solar storm caused major malfunctions to two communications satellites, disrupting newspaper, network television and nationwide radio service throughout Canada. Other storms have affected systems ranging from cell phone service and TV signals to GPS systems and electrical power grids. In March 1989, a solar storm much less intense than the perfect space storm of 1859 caused the Hydro-Quebec (Canada) power grid to go down for over nine hours, and the resulting damages and loss in revenue were estimated to be in the hundreds of millions of dollars.

"The question I get asked most often is, 'Could a perfect space storm happen again, and when?'" added Tsurutani. "I tell people it could, and it could very well be even more intense than what transpired in 1859. As for when, we simply do not know," he said.

Further Reading:-

http://www.npr.org/templates/story/story.php?storyId=124125001&ft=1&f=1007
(Is this something that we need to consider for AREC purposes?)

http://www.solarstorms.org/SRefStorms.html

NOTICES

Hawkes Bay Car Rally
28th August

Rally Wairarapa
11th & 12th September

Please feel free to send notices to
john@thecomputerman.co.nz

Buy – Sell - Etc

For Sale
Offers required.

Kenwood R-5000 General Coverage Receiver, mint condition 100kHz-30MHz, Multi Mode, Fitted with 1.8kHz SSB filter, Manual, 230Vac Power, Purchased Feb 1997, No mods or repairs.

Diamond D130 Discone Antenna 25-1300MHz, 14m Coax cable
Purchased Feb 1997, never seen the weather.

Sony AN-LP1 Active Loop Antenna 3.85-21.95MHz for Shortwave Radio
Portable flexible folding 48cm dia comes with Noise Filter.
Sony Tuner Box with 4m cable, all complete with paperwork

Original Receipt is available. Would prefer to sell as one lot but negotiable.
Equipment can be inspected.

Contact: Peter Le Quesne. ZL4TCC. Phone (06) 843 8212,
Email: paleq@clear.net.nz Address: 23 Oriel Place .Pirimai. Napier

Free Advertising for your bits & pieces. Contact ZL2VAF at john@thecomputerman.co.nz