OFFICIAL MEDIA OUTLET OF THE LOCKYER VALLEY RADIO AND ELECTRONICS CLUB INC.

VK4WIL

Lockyer Valley Radio and Electronic Club Inc.

MARCH / APRIL 2011 News Letter

Welcome to the Latest news letter.

There has been, a lot of things happening around the Lockyer Valley

The last few months. Hopefully we can supply you, the info your Seeking

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General Club info

Club meetings: 2nd Sunday of the Month at 2 pm

Venue: Laidley Shire Community Care Assn, Mary St Laidley

But please check prior to coming to the meeting

As we have meetings at Lake Dyer at times

The best place to confirm, where the meeting will be held, is on the web site. And of course on the repeater.

On air meetings:

3570KHz Friday nights at 0730 local (0930 Zulu)

And Most nights on the RIL repeater

Club repeater: VK4RIL - 147.700 (negative offset)
Echolink Node 491940 Please feel free to use the Echolink Function.

The repeater has been, of late, very erratic, and may drop out

Since, access to the site is not possible, due to land slides, we haven't been able to do any maintenance to the repeater, if you find the repeater not working.

Please go simplex 147.700 MHz

Hopefully, We should have an SSTV beacon up and running, from the repeater site, when we can get access.

See the details else where in the newsletter.

Meeting

2 pm

Laidley Shire Community Care Assn, Mary St Laidley

This will be a business meeting

With many interesting items to discuss.

Please come along and put your thoughts and ideas forward

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THE CONTEST *CLUB*

OFFICIAL MEDIA OUTLET OF
THE LOCKYER VALLEY RADIO

CONTESTING with Alan VK4SN

Welcome to the new year of contesting. Last year saw awards being sent to various club members gaining recognition for their part in populating the airwaves. Well done to all.

GENERAL NEWS----------

The AR Magazine has Phil, VK4BAA, back to write the contesting column. This months mag includes lots of info and some results for past contests. Welcome back Phil.

For those getting into contests, there is an article on Contesting for Beginners.

VK4KW was notified this week, of the Lambda contest groups placing, in the WW WPX Contest.

1st VK, 1st Oceania, and 16th in the world for the Multi Op, Two Transmitter category.

VK4 Ops were BAA, NDX, HAM, TI and SN.

The VK Contest Club had its annual get together at the Ipswich Jets League Club in December. Once again it was good to catch up with Ops and enjoy a few stories a meal and alcoholic beverages.

Attendees were John VK4IO, Catherine VK4GH, Mike VK4DX, Paul VK4FPDW, Mike VK4QS, Phil VK4KW, Alan VK4SN, Trent VK4TI, and Dave VK4NDX.

CLUB NEWS---------

The ARRL 10mtr contest was to have been a club event, but due to personal commitments some pulled out, so I tackled the contest on my own. Initially the club was to set out and see if we could beat our record in 1999, but as it turns out the band was in worse condition than it has seen in many years and was - in my opinion - a huge flop. On the brighter side, next year is looking to be heaps better and the club can have another go at the record in better conditions.

The John Moyle Field Day is upon us again, over the 19th and 20th of March. The club plans to work this contest as a field day exercise. Setting up

Friday afternoon in rediness for a 11am kick off Saturday should see the station ready for action on time. Operation over the whole weekend is planned.

Please let our Contest Manager, Wazza VK4FJ know if you are interested in joining in the fun, even if it is only for a couple of hours on either day to give some time off for those Ops sleeping over. Do it now!

Remember to keep an eye on the clubs website for upcoming events, being news, or contesting. I have a full list of contests on my website for this year and on the club website I normally keep notification about 2 months ahead. If I have missed some and you would like to see it listed, please email me the details.

Club = www.lvrec.org

VK4SN = www.vk4sn.com

73's and good DX till next issue.

Alan, VK4SN.

JMFD ?????

John Moyle Field Day..... This weekend

WHERE ????? Northern End of Mountain Road Laidley.....

Interested in being a part of the contest

Contact: Alan or Ken, Contact details on the Club Web site.

Or Call on the repeater 147.700 MHz

Or simplex 147.700 MHz for the directions to the site.

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General Club bits and pieces

The People of Mt Silva, Black Duck Creek area

Have been having a bad time, as well

With no telephone system since the Flooding in January

And no way to get communications with the out side world

Our club. Is at present , chasing quotes for supply of the repeater, solar panels and 55 UHF hand helds

We have done site surveys with Radio Mobile software and VK4SN, VK4JAC and myself have done the real life survey and confirmed the correct location of the repeater site. With signals far better then predicted, through both the Back duck and East Haldon valleys as well as north through Mt Silvia .

The HF Club net : Friday nights @ 7:30 PM
On 80 meters 3570 KHz

How many of you would like to attend the weather bureau at the Brisbane airport, on a weekend, either Saturday or Sunday.

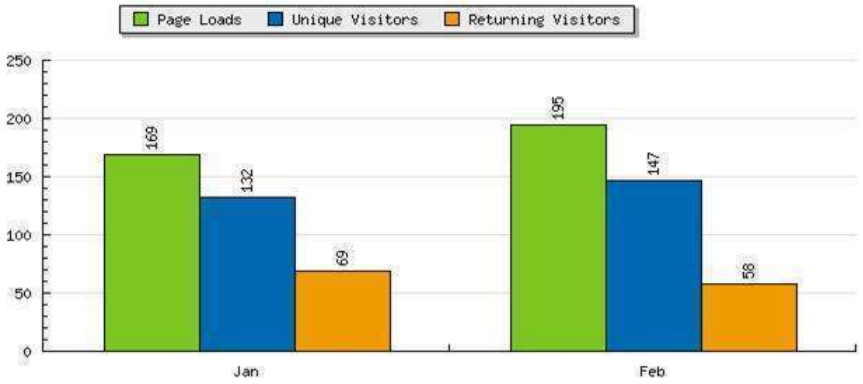
To have a look at the process of launching and tracking weather balloons

And to see a launch. And if the winds are blowing towards the west,

To track one back this way.

can let me know. If your interested

You don't have to be a club member. So that I can organize a time and date



If you have something you would like too see in the newsletter or have an article or news item

Please Email me at vk4khp@netspace.net.au

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Satellites

G'Day, Remember last time, we were talking about the launch of ARISSat-1. Well it was tested inside the International space station. And worked very well as many amateurs around the world agree. However the hand launch of the satellite was Scrubbed. And will be launched in April or May, failing that in July.

Just have to sit and wait until April the 12th, when it will be turned on in the ISS. If your chasing awards, try to receive this sat.

The real launch will be in July during a space walk

Check it out here. http://www.arissat1.org/v3/

After the disappointment subsided, we noticed that 3 Picosats, were to be launched along with a NASA payload, called Glory Sat, Which was scheduled to be Launched on February 23rd at 20:09:43, Queensland time, from Vandenberg airforce Base in California

With About 12 minutes left before Launch, the launch was scrubbed, and is now due for March the 4th

For more info

Try these sites:

http://ssl.engineering.uky.edu/missions/orbital/kysat1/about-kysat-1/

http://ssel.montana.edu/

http://glory.gsfc.nasa.gov/

Now if you remember the Satellite tracking program, we had working at the February club meeting. And you haven't down loaded it yet

Here is the site.

http://sourceforge.net/projects/gpredict/files/Gpredict/1.2/gpredict-win32-1.2.0.704.zip/download

And the Authors site:

http://gpredict.oz9aec.net/

Well Things just kept getting worse for the Launch of the Picosats

When the Rocket failed to achieve orbit, due to the payload fairing not detaching from the payload module, causing drag and the extra weight that was still on the rocket, prohibiting the required velocity to be achieved.

The rocket, with the four satellites, now sits on the bottom of the South Pacific Ocean.

E-mail: vk4khp@netspace.net.au

Captain BOB , VK4BYX

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Here is a link to a u-tube video of one of my flights from Brussels Zaventem Airport to Luxor, Egypt. On this occasion, my Belgian co-pilot is flying the A320 aircraft. The A320 is a fly-by-wire aircraft with a "glass cockpit" and a high degree of automation. The once conventional dual control columns are replaced by mini side sticks. Captain fly's with his left hand on his side stick and co-pilot uses his right hand for his. The area in front of each pilot has a fold out table, each valued at about $10,000. This explains why a few stressed airlines opt for no table. There are 2 side by side highly complex thrust levers mounted on the centre console. Captain always taxis the aircraft. Pilot flying has control of the aircraft at line-up on the take-off runway until late in the landing roll. Following co-pilot advancing thrust levers for take-off, the captain always has his hand on the levers in preparation for a rejected take-off. In the video, my right hand can be seen in preparation for this positive action. If I just snuck my hand slowly on to the thrust levers, co-pilot would wonder about my readiness to reject, so this is more a signal to him that we are singing from the same page.

Pilot Flying calls for "gear up" after the aircraft has positively left the runway and selects a 15 degree up aircraft body angle, calling for flaps retraction in stages as the speed increases. At about 1500 ft, the pilot flying reduces to climb thrust. Normally the thrust levers remain at this position from that point until the landing flare at about 35 ft. Each engine's power is controlled by Full Authority Digital Engine Computers (FADEC). Data from the flight computers are sent to the FADECs to reduce power from climb to cruise power when the aircraft autopilot automatically levels off at the pre-selected cruising level. Engine thrust then automatically varies to maintain the optimum cruising speed. (Remember they are highly complex)

This video is the first leg of a 3 leg flight that terminates back in Brussels 13 hours later. My co-pilot Hubert is interested to gain the most experience for a future command, so he is flying the first and last legs, while I fly the shorter middle leg to Haggadah on the Red Sea. I had flown with Hubert many times and he was already at command standard.

The whole of the flight, including expected departure, en-route and perhaps the instrument approach procedure, is normally loaded into the aircraft computers before engine start. The captain right hand screen contains the route data display in addition to weather radar returns and other selectable data. The resultant navigation control is 3 dimensional, and can even be set for an auto land at suitably equipped runways. The screen display has a representation of the aircraft following the prescribed flight plan. Over Luxor, the screen information has been set to the same instrument approach procedure that can be seen on the left window clip board. Arrival at such an altitude over the Luxor airfield is due to our Instrument Flight Rules and is a most convenient way for the control tower to keep us separated from other aircraft.

These aircraft fly in temperatures around -50 to –60 degrees C, but there is no ice on the windscreen. The windscreen is multi layered glass and plastic. Embedded also is a very fine layer of gold. Quite a large current is fed through the gold layer to heat the windscreen for anti-icing and to keep it from becoming brittle in case of a bird strike at lower altitudes. Before anyone asks, the gold layer is so thin that vision is not obscured. Many years ago on my first C130 command flight, there was a major in-flight flight deck fire caused by failure of a windscreen heat circuit. Yes, I did survive.

The A320 electrical system is AC 400 cps with transformer rectifiers to produce any needed DC. The aircraft cannot be flown at all without hydraulics,

and it is highly dependent on electrics. Besides the clever load shedding and back-up systems, there is an emergency wind driven hydraulic pump. When all else fails, the pump extends into the slipstream under the fuselage and the folded propeller blades extend to drive it. The hydraulic pressure powers sufficient flight control actuators for safe flight. An alternator is powered in turn by a small hydraulic motor so we no longer have to rely on the bare 30 minutes that could be provided by the battery.

Even when the autopilot is turned off, the aircraft will remain in the same attitude last selected by the side stick. As long as the aircraft had the capability it would continue following the last command until there is another input. This "manual flying" is usually practiced for a short while after take-off and before landing for continuing hand flying practice. Fully automated flight could commence 5 seconds after liftoff until the completion of the destination landing roll, and this is not uncommon. An interesting property of the mini side sticks is the ability of each pilot to press a stick mounted button to de-activate the other side stick. If one pilot should become incapacitated, the button could be useful. The last person to press has sole control until the other button is pressed! If a button is pressed and held for 30 seconds, the other mini side stick and its button are deactivated for the remainder of the flight. An instructor pilot could over-ride inputs in the interest of safety close to the ground during a training flight, and this is not too uncommon. In one case, the aileron circuit was reversed on a captain side stick. Immediately after take-off by the captain, the A320 of a major German airline was in grave danger as a result, but the very alert co-pilot pressed the take-over button, took control and everyone lived to fly another day.

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VK4FJ'S BLOG

G'Day and welcome to my blog on contesting so far this year 2011 for me.

First contest for the year that I participated in was the PSK WW DX which is run in BPSK63 mode and is always a lot of fun.

I logged 111 QSO's , 31 countries, 16 Zones with a claimed score of 13547 points. Operating time was only 4.5 hours.

I had a few hair raising moments when N1MM and FL Digi decided they would lockup and the only thing to do was to close the program and restart it and go again, thankfully each station that was calling me each time the lockup happened was still there waiting for me when I came back on air.

The next contest for the year was the CQ WPX RTTY. One thing for sure RTTY is a mode where higher power is an advantage to have. In these digital type modes I use a Kenwood TS-570SG at about 60-65 watts power, The only time I increase it is to try to make a QSO which is proving a bit harder to get.

For this test I logged 212 QSO's , 33 countries, 19 Zones and 139 WPX with a claimed score of 86180 points. Total operating time was about 13 hours.

The one thing I look for are call signs with **FJ** in them for whatever reasons I cannot explain, however I had the great pleasure of working John **K4FJ** in the states. I don't know if John thought I was having a bit of fun when I answered his contest call, I called him with **VK4FJ** twice and he asked me to repeat, which I did again twice, he again asked me to repeat which I did with my call twice more with his report, this time John came back with an acknowledgment and my report. I must remember to post the QSL card, HIHI.

The next contest was the ARRL DX SSB in the first weekend of March.

For these SSB contests I use a Yaesu FT-950 at 100Watts.

I only managed 31 QSO's on the first day before the propagation on 15m dropped out and I was thinking how bad that effort was. The next morning started very slow with only 20 more added in the first 3 hours, then I was spotted on the cluster and I finally had a good run going for about 45 minutes where about 60 QSO's where added before Propagation again dropped out. I then went back to just calling CQ contest and managed the odd QSO. I then found a couple of "High Power" VK's calling CQ so I started calling just below them and managed a good little run before the band shut down.

I finished with 148 QSO's, 31 US states and 4 Canadian provinces with a claimed score of 15540 points. Operating time was about 8.5 hours

I always find it hard going in these US contests when you only run 100 watts as the US stations do not look Downunder very often to see if we are there and you will usually get a thank you for the call when they do hear you. Interestingly enough, when you are spotted and the beams get turned to the VK/ZL area a lot of the stations are surprised to find you are only running 100 watts of power because true signal reports are often 5/9.

Hope to see you in the CQWW WPX SSB at the end of March.

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Eagle Ridge Pic's

This is the Road up to Bob VK4BYX's Place

Well, that should read "part of the road"
This road services two Houses.

There have been land slides all around the Lockyer Valley.

Vk4sn, vk4qh and myself, were doing surveys for JMFD sites and checked out the damage to bobs place

So that's Ken QH and Myself KHP Below, Alan VK4sn is behind the Camera / phone

SSTV Camera Beacon

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SSTV Camera Beacon

Well.

The Club Purchased a SSTV Camera. That can be set to beacon at different intervals

We will use a hand held 2 meter radio, that was donated to the club by Bob VK4BYX

The Beacon will be placed at the repeater site.

And will transmit on the Australian 2 meter SSTV frequency of 145.625 MHz

If you don't have any gear to receive the pictures. You won't miss out.

As we will receive and upload the pictures to the website in real time.

Planned, is the ability to rotate the camera in azimuth and elevation

Using DTMF tones

Features

Scottie 1, Scottie 2, Robot 36 and Robot 72 modes

Manual trigger or automatic timed operation

8 frames of non-volatile image storage

Character encoder for Scottie modes

F/No = 1.6, 43 degree FOV with standard lens

80 mA current draw while transmitting, 12 mA idle

Hardware Description

The SSTVCAM board measures 1.5" by 1.28" (38mm by 35mm) and is 0.85" (22mm) high with the camera installed. It weighs approximately 1/3 ounce (9 grams.) At a minimum, the board requires a power supply and connection to the transmitter's microphone input.

Pinouts Pin	Function
PWR	Power input - 5 to 12 volts DC
GND	Ground
GND3	Ground
SEND	Sends or stores a frame
RETR	Selects memory retrieve mode
STOR	Selects memory store mode
MODE1	Selects SSTV format
MODE2	Selects SSTV format
PTT	Open collector push-to-talk output
OUT	Audio output
RXD	Serial data input (LVTTL) - 3.3v max
TXD	Serial data output (LVTTL)
PTT	Open collector push-to-talk output
SEL1	Selects memory slot or timer interval
SEL2	Selects memory slot or timer interval
GND2	Ground
SEL3	Selects memory slot or timer interval

Note that while the unit will function with a 12 volt input, higher input voltages may generate excessive heat at the voltage regulator when the camera is operating. A supply voltage of 9 volts or less is recommended.

Operation

SSTVCAM sample capture

All of the digital inputs on the SSTVCAM are active low - grounding a pin sets it 'on'. The SSTV format to be used is selected by the MODE1 and MODE2 inputs, as follows:

MODE1	MODE2	Format
Off	Off	Robot 36
On	Off	Robot 72
Off	On	Scottie 2

On On Scottie 1

If STOR and RETR are off, pressing button S1 or momentarily grounding the SEND line triggers an immediate transmission in the selected mode. If STOR is on, a frame will be saved to the memory slot selected by SEL1-SEL3. If RETR is on, a previously saved frame will be sent from the selected memory slot. If both STOR and RETR are on, the unit will operate in self-timed mode, sending frames automatically with a delay between each frame specified by SEL1-SEL3, as follows: SEL1 SEL2 SEL3 Delay

Off	Off	Off	0 seconds
On	Off	Off	10 seconds
Off	On	Off	30 seconds
On	On	Off	60 seconds
Off	Off	On	120 seconds
On	Off	On	300 seconds
Off	On	On	600 seconds
On	On	On	1200 seconds

Character Generator

A 1-line character generator occupies the top of the frame in Scottie mode. By default, this line displays the SSTVCAM version and a frame sequence number. The contents of the line can be changed by sending serial data to the unit through the RXD line at 4800 baud with LVTTL (0 to 3.3v) signal levels. Sending a carriage return or linefeed moves the cursor to the start of the line.

If all goes well, you may see pictures from a balloon launched in the near future

As we intend to have an SSTV camera beacon on the balloon.

o