I took this photo, just after a small girl, tied her knitted dolly to a fig tree in Laman Street, Newcastle. She was about six years old. It was all about a protest attempting to prevent the destruction of two rows of Hills Fig trees that had formed an over-arching canopy.

I asked the girl (in the company of her mother) what she thought her dolly would do. "It will save these trees from the bad people over there" She pointed to the Newcastle...
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Westlakes Amateur Radio Club Inc. is an affiliated club with the Wireless Institute of Australia.

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Radio Call signs
Club Call sign: VK2ATZ
Club Repeater:
VK2RTZ 146.775MHz
VK2RL 146.875MHz
Club Digipeater:
VK2RTZ 147.557 MHz
IRLP Node 6040
Echolink 172107

Club Activities:
Club Nets:
Club broadcast, Sunday 0900
VK1WIA News.
Club Evening Broadcast
Sunday 1900
followed by VK1WIA News.
Call backs follow each cast EZB Net 147.75MHz
Saturday 0800
Stone the Crows Net
Saturday 3.588MHz  0600

Internet HomePage:
www.westlakesarc.org.au

Business:
Tuesday after 1700
Saturday after 1200

Clubs Distance Record:
2m Simplex VK2FGM 2040 km
QRP CW VK2YA 2680 km

Note: Opinions expressed in this magazine are those of the contributors and do not necessarily coincide with those of the Executive nor the members in general.

Proof reading by: Stella

FOR SALE
TET-Emtron TE-43 Tri-bander 14,21,28 with balun as new $499
JST antenna analyser fully assembled and operational $75
Charlie VK2CLH 04 2784 0257
e-mail charliehunt1@bigpond.com

Mobile Master Antenna. A screwdriver type from Roda Antennas. Covers 80m to 10m continuously, has a purpose built ball bearing steel gear motor. All problems with other 'screwdriver types' have been designed out.
Ron  0404091804
e-mail ron@roda-antennas.com.au

PROJECT CORNER

Squid Pole 9 or 10 metres
Barrie VK2ABD 49583359
e-mail vk2abd@gmail.com

WATCH THIS SPACE
All is quiet on the project front this month but there are a few items under consideration. One is a tiny output cw beacon that can be operated on several bands.

If you have any ideas for a club project or a project enquiry  contact Westlakes Project Officer Norm VK2KNC
vk2knc@gmail.com
Town Hall. I asked her, will your dolly win?” Quick as a flash she replied, “well he is winning so far.” But now the fig trees are now gone, the “bad people” won. Where is the little knitted dolly now? Probably turned into mulch with the trees. And doesn't Laman Street look great now?

This fig fight is a lot like amateur radio, at least for those who like to make things, with a soldering iron. Surface Mount Devices are the problem. I bet you can't solder them to a PCB. Surface-mount technology became widely used in the late 1980s. This design approach was first demonstrated by IBM in 1960. Components were mechanically redesigned to have small metal tabs or end caps that could be directly soldered by robots to the surface of a PCB. Components became much smaller and component placement made on both sides of a board, not though holes like older components. SMDs are lighter, cheaper, smaller and can be placed closer together. These factors, among others, mean that the days are numbered for through-hole components with widely spaced leads.

Yes, we are done, as the title says, the fig trees, the knitted dolly, and the amateur radio home-brew constructor with a soldering iron.

The European Space Agency Herschel space observatory has exhausted, as planned, its supply of liquid helium coolant, concluding over three years of pioneering observations of the cool Universe. The mission began with over 2300 litres of liquid helium, which has been slowly evaporating since the final top-up the day before Herschel's launch on 14 May 2009.

The evaporation of the liquid helium was essential to cool the observatory's instruments to close to absolute zero, allowing Herschel to make highly sensitive scientific observations of the cold Universe. The confirmation that the helium is finally exhausted came on 1 May at the beginning of the spacecraft's daily communication session with its ground station in Western Australia, with a clear rise in temperatures measured in all of Herschel's instruments. Herschel has made over 35,000 scientific observations, amassing more than 25,000 hours of science data from about 600 observing programmes.

LG Electronics will begin deliveries of curved OLED television sets this month, making it the first to offer such a product to the public. The use of organic light-emitting diodes allows screens to be made thinner and more flexible than before. LG Electronics and its rival Samsung, both showed off curved OLED TV prototypes at the Consumer Electronics Show in Las Vegas in January, OLED technology is based on carbon-based materials that convert electricity into light. While LCD screens need a backlight to illuminate their crystals, OLED does not need a separate light source. With more than five years research behind developing the optimum curvature, the entire screen surface is equidistant from the viewer's eyes, eliminating the problem of screen-edge visual distortion and loss of detail. This allows the newer type of TVs to be made thinner, lighter and more energy-efficient than before, as well as offering the advantage of deeper blacks. In addition, the OLEDs can be fabricated onto a flexible plastic substrate rather than a rigid glass layer, making it easier to manufacture them into a curved screen. An OLED TV will be like having an IMAX in the lounge room.

OBSERVATORY RUNS OUT OF GAS

FOR SALE BY TENDER

NEW 70cm REPEATER

VG2RFI came on air last month located on Gan Gan Lookout. It is operated by WICEN but available for general use. The frequency is 439.625 (5MHz offset) with 123Hz tone.

NEW 24 GHz EME WORLD RECORD

Rex VK7MO has completed a 16383 km QSO with OK1KIR in the Czech Republic to claim the World record on 24 GHz. Rex used just a 1.14 metre dish and 10 watts which he has designed for portable operation, while OK1KIR used a 4.5 metre dish and 22 watts. This has been a 12 month project for Rex, which has involved working with Joe K1JT to produce improved decoders that can cope with the very wide spreading of signals on 24 GHz EME. Rex and Joe will be publishing this work in the next edition of DUBUS magazine which is devoted to VHF and Microwave Amateur radio.

From VK7 News
A TALE OF A JIGGER

Ray Young VK2ARY/VK2ZL asked me several months ago if I had a Simplex Auto 'jigger' (PMG talk for a 'bug') I did have one on loan a few years back, but I had to give it back. Would I like one, he asked? Would I what! So at last Wyong Field Day, Ray presented me with the Simplex Auto in the photos. It is complete, working and in original condition. What'smore the serial numbered name-plate is attached. It is number 628, making it one of the earliest ones produced.

The Simplex Auto was invented in 1920 and made by Leo Cohen in Melbourne. He was a telegraphist. Cohen made the Simplex Auto until he went into the Army in 1939.

In the early days of telegraphy in Australia, most telegraphic equipment was imported. In the 1920's several individuals and companies started to manufacture both the simple hand key (up and down movement) and the semi-automatic type - jiggers.

The Simplex Auto was very popular with PMG telegraphists and they are also highly regarded by amateur radio operators and can be heard on the amateur bands to this day.

It was made at various times in left hand versions which are more of a rarity. Leo Cohen himself operated as a Telegraphist in the Chief Telegraph Office in Melbourne. His jigger became the default key in the PMG Department for good reason.

At this time alternative jiggers in use did not hold their adjustments as well as a Simplex Auto which was considered as more reliable. When held in the right light, a clue to the original owner of Auto Simplex Number 628 can be seen. On the metal strap is:

"Dave Martin - Mudgee." Thank you very much Ray, this jigger has found a good home. Greg VK2CW

THE BOOT SALE - TALK ABOUT WET!

Westlakes second Car Boot Sale went ahead at the club in April and it's hard to believe, the weather was worse than the event last year. Not many car boots were open due to the weather but there were about 10 tables selling off various goodies under the shelter of the rear awning. An estimated 50 to 60 members and visitors turned up, one was Tim VK4HFO from Lamb Island.

On display were brand new screwdriver type HF mobile antenna from Roda Antennas. They are very well constructed and the quality was of a very high standard. Details of the vendor can be obtained from the club secretary and there is a mention in "For Sale" on page 19 if anyone is interested in purchasing one.

Michael VK2CCW was busy cooking on the BBQ while Diane VK2FDNE and Penny prepared the salad and bread for the steak and sausage sandwiches. On behalf of the Westlakes Committee, I would like to thank everyone who attended and made the day a great success. If we can juggle a fine day for the third Car Boot Sale, there will be 200 in attendance.

Richard VK2FRKO

BEGIN SAVING UP

The ACMA has announced that the annual cost of an amateur radio licence has risen to $73. That's an increase of 1.39 per cent. It could have been worse.

COP THAT!

This is from ABC News April 26. A Victoria court heard a woman went to her ex-husband's house because she had not been invited to his birthday party. She attacked him with a sledgehammer, a meat cleaver, a knife and a frying pan. Funnily enough, he suffered several stab wounds, cuts and bruises. If he had been an amateur radio man, I hope he owned an 817 and not a 520s. OUCH! (Hell hath no fury etc.)
A pilot of innovative ‘white space’ technology in the UK, among the first of its kind in Europe. The technology uses gaps in radio spectrum, called ‘white spaces’, which exist in between frequency bands. In this instance, these bands have been reserved for digital terrestrial TV broadcasting and wireless microphones. Use of these white spaces will allow devices to transmit and receive wireless signals for applications such as broadband access for rural communities, Wi-Fi-like services or new ‘machine-to-machine’ networks. Following a successful completion of the pilot, Ofcom anticipates that the technology could be fully rolled out during 2014, enabling the use of white space devices across the country.

White space technology will be one way of meeting the growing demand for data in the UK. Ofcom is separately planning to free up more spectrum in the future for the next generation of high-speed data services, already dubbed ‘5G’. This follows the successful completion of the 4G mobile spectrum auction last February. Compared with other forms of wireless technologies, such as regular Bluetooth and Wi-Fi, the radio waves used by white space devices will be able to travel longer distances and more easily through walls. This is because they would use the lower frequencies that have traditionally been reserved for TV.

**WHITE SPACE FOR 5G?**

**TONE IS NOW REQUIRED FOR 146.775 REPEATER**

Here is very important information for everyone that uses Westlakes VK2RTZ repeater 146.775 MHz. To gain access you will need to have the 91.5 CTCSS tone programmed into your radio. If you don't have this tone you will not be able to use it. This has come about due to the increasing incidence of interference that has been locking up the repeater. For those members and non members who have older radios and require TONE BOARDS the club is examining options for circuit boards and parts to make these as kits. If you would like to order one of these tone board kits please register your name with a committee member. The cost of the kit is unknown at this stage. More news on tone boards next month.

Remember, no 91.5 tone, no repeater access to 146.775 MHz.

**IS IT A RADIO, IS IT A PHONE?**

The Alianza DxB Innovative multi-band two-way radio/smartphone device is an innovative docking case, which allows you to dock any iPhone, Android, or Blackberry smartphone and transform it to a self programmable multi-band two-way radio with RoIP repeater capabilities. See [http://kck.st/YXr17Y](http://kck.st/YXr17Y)

The Alianza DxB's features include;

1. Innovative amateur radio gear - The DxB is the world's first docking case which allows you to dock your smartphone turning it into a two-way radio. Unlike Nextel, our device can communicate with other two-way radio and smartphones without an app.
2. Made for amateur radio operators, the DxB allows you to communicate to any two-way radio when out of range of cellular coverage. Plus its built-in battery helps recharge your phone and its rugged case helps protect it. Amateur radio community. The DxB was launched on 15 April 2013.

**AIN'T TECHNOLOGY GRAND**

Last month, I went to Canberra for the weekend and I was sitting on a footpath having breakfast as seems to be wont of most Canberrans. It was Sunday morning and I could not but help wonder, what happened at Westlakes the day before. My iPhone, of course. Google Westlakes Amateur Radio Club, the site pops up. Click on Blogs and lo and behold, is that Sunday morning's news, just as if I was at home and hearing it on 2 metres. It made me realise what a great job the scriptwriter, Richard VK2FRKO and the news promulgator, Dave VK2RD do every week. VK2CW

**NOBLE IS THE NAME**

It is called Noble Radio NR-6N4 Two Band VHF Transceiver from a new amateur radio equipment manufacturer - Noble Radio. All of their products are designed and manufactured in the USA. Their first transceiver will be a DualBandMultimode VHF transceiver for 6 and 4mtrs.

**Band Coverage:** 4M: 69.9 MHz to 70.5 MHz 6M: 50.0 MHz to 52.0 MHz **Modes:** SSB (USB & LSB) and CW. **Frequency Coverage:** 4M: 69.9 MHz to 70.5 MHz 6M: 50.0 MHz to 52.0 MHz. **Output Power:** 20 Watts CW or PEP SSB. **Supply Voltage:** 11.5 to 14 Volts Regulated DC (Negative Ground) at approximately 3.6 Amps at full output power.

The NR-6N4 has the capability of being controlled by a standard PC type keyboard that plugs into a rear connector. Once a keyboard is interfaced to the radio, it can be used to directly enter a frequency, skip directly to various functions by a single press of a function key without having to navigate the menus from the front panel buttons as well as being used to send CW via the keyboard. There is also a built in keyer function that operates with a standard keyer paddle for CW operation with or without a keyboard connection.

The all important question, how much? The price is expected to be around $800 US.
SEE THE STARS WITH LED LAMPS

Light pollution prevents nearby residents from being able to see many of the stars in the night sky. Now there is a new type of LED-powered streetlamp that will radically reduce light pollution. Current designs "leak" large amounts of light in unwanted directions, obscuring views of the stars, wasting energy and making it harder for drivers to see. Conventional street lamps - which use high-pressure sodium or mercury vapour - scatter up to 20% of their energy horizontally or vertically because it is difficult to control their beams. It is easier to direct light from LEDs directly because it is being emitted from a smaller area. So, while manufacturers controlled the direction of the light rays from older lamps using a reflector typically made out of polished aluminium, they can now take advantage of lenses to be more precise.

The best LED (light-emitting diode) streetlamps on the market direct about 10% of their energy horizontally or vertically. The new LED invention could further reduce that amount to just 2%. The new lamp uses three features to ensure the vast majority of its light is limited to a pre-determined rectangular shape covering the road. Better to limit the light rays to where they are of use. A special "total internal reflection" lens for each LED designed to focus its light's rays so that they travel parallel to each other in a single direction. This is rather than criss-crossing and diverging from each other causing many to spill beyond the target area. A reflecting cavity into which the lens-covered LEDs are fitted. This helps "recycle" any light rays which fail to travel the desired path. A diffuser through which the focussed light passes to help tackle unwanted glare. This will also save on electricity costs since it requires between 10 and 50% less power to illuminate a section of road than current LED streetlamps.

A RARE ONE FOR VK2ATZ

A QSL card has arrived for the club from the latest new DXCC entity, South Sudan. The card reads, To: VK2ATZ. This confirms our 2-way SSB QSO Date: April 28, 2013 Time: 06:14 UTC Band: 10 M. Sigs: 59.

Now this country is a rare one indeed. Who could have been on the microphone this end? It was none other than Paul VK2HV. Good one Paul.
BATTERY BREAKTHROUGH

A new type of battery has been developed which its creators say could revolutionise the way we power consumer electronics and vehicles. The University of Illinois says its use of 3D-electrodes allows it to build "microbatteries" that are many times smaller than commercially available options, or the same size and many times more powerful. It adds they can be recharged 1,000 times faster than competing technologies. Innovation should help address the issue that while smartphones and other gadgets have benefited from miniaturised electronics, battery advances have failed to keep pace. Batteries work by having two components - called electrodes - where chemical reactions occur. In simple terms, the anode is the electrode which releases electrons as a result of a chemical reaction. The cathode is the electrode on the other side of the battery to which the electrons want to flow and be absorbed - but a third element, the electrolyte, blocks them from travelling directly. When the battery is plugged into a device, the electrons can flow through its circuits making the journey from one electrode to the other. The "breakthrough" involved finding a new way to integrate the anode and cathode at the microscale. These battery electrodes have small intertwined fingers that reach into each other allowing the battery have a very high surface area even though the overall battery volume is extremely small. A cross-section of the battery reveals the 3D-design of the research project's anodes and cathodes. It gets the two halves of the battery very close together so the ions and electrons do not have far to flow. Reducing the flowing distance of the ions and electrons means...
The photos on this page are of (top to bottom):

* Lucille Mazurek, age 29, ex-housewife, husband gone into the service. Working at the Heil and Co. factory in Milwaukee on blackout lamps to be used on Air Force gasoline trailers. Taken in June 1942.

* Julie Warburton, age 28, connecting ignition systems to commutators on multi-cylinder radial engines. Taken in August 1942.

* Marion Miller, age 31, checking electrical sub-assemblies at the Lockheed Vega aircraft plant at Burbank, California. Taken in July 1942.

Notice most of the women had lip stick and nail polish on. The lighting poses of the women makes it evident that the purpose of the photos was to encourage the war effort against the axis powers. Note also the almost complete lack of basic safety equipment. No safety glasses, and only one wearing gloves. For some reason, women were good at electrical work. They were active in parachute packing and the manning of barrage balloons in addition to performing catering, meteorology, radar, maintenance, communications duties including wireless telephonic and telegraphic operation. They worked with codes and ciphers, analysed reconnaissance photographs, and performed intelligence operations.

Article by courtesy of Les VK2LT

"During a zombie apocalypse, the only reliable form of communication would be using Amateur Radio, as cellphones and the Internet will become useless", said Don Trynor, licensed Amateur Radio operator with the call sign of VA3XF. "By teaching people to use Amateur Radio, we can provide them with a valuable skill that they can use in times of emergency or natural disaster to stay in communication with one another," Trynor added. He further noted that while the likelihood of a zombie apocalypse actually occurring is very low, people who are prepared for one would also be prepared for any disaster that might actually occur.

From Central Toronto Amateur Radio Club Canada

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Here is an interesting historical fact that you probably didn't know. Just have a look at the calendar for the month of September 1752. Search it on Google and see it for yourself. In case you haven't noticed, 11 days are simply missing from the month. Here's the explanation: This was the month during which England shifted from the Roman Julian Calendar to the Gregorian Calendar. A Julian year was 11 days longer than a Gregorian year. So, the King of England ordered 11 days to be wiped off the face of that particular month. So, the workers worked for 11 days less that month, but got paid for the whole month. That's how the concept of "paid leave" was born. Hail the King!!!

In the Roman Julian Calendar, April used to be the first month of the year; but the Gregorian Calendar observed January as the first month. Even after shifting to the Gregorian Calendar, many people refused to give up old traditions and continued celebrating 1st April as the New Year's Day. When simple orders didn't work, the King finally issued a royal dictum; which stated that those who celebrated 1st April as the new year's day would be labelled as fools. From then on, 1st April became April Fool's Day.

Courtesy of Geoff VK2GL

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It's called the Hurdy Gurdy Museum of Vintage Radio and the tower is open from 11 am to 4 pm. It has a call sign, EI0MAR. It also has a history as the tower was the site for an experimental Marconi Station in 1905. Ye Olde Hurdy Gurdy Museum of Vintage Radio is located inside the Martello Tower overlooking the harbour in Howth County, Dublin.

AN UNUSUAL RADIO MUSEUM
FOR SALE

Palm Size Digital Multimeter

Ranges
DC volts 200mV to 500V, AC volts 250V 500V
DC Current 200uA, 20mA, 200mA, 10A
Resistance 200, 2K, 20K, 200M Ohm
Input Impedance 10M Ohm
Continuity buzzer, Diode tester
Square wave output
Complete with leads, battery and Protective Holster
BIG 1/2” LCD DIGITS
CLUB MEMBERS SPECIAL $16 (Limited number available)
Contact Geoff VK2GL at Westlakes or email leage@optusnet.com.au

STAY SAFE FROM ZOMBIES

The threat of a zombie pandemic, commonly known as a zombie apocalypse, is ever present in today's world of widespread genetic engineering and frequent international travel. Fortunately, Amateur Radio can help minimize the risk of such a catastrophe.

Amateur Radio is a non-commercial radio service that allows licensed operators to use various types of radio communications equipment to communicate with one another, both locally and around the globe, for both public service and recreational purposes. Amateur Radio operators, often referred to as "hams", are federally licensed by Industry Canada and are allowed to use specially allocated radio frequencies to carry out their operations. Hams come from all walks of life and are located all over the world.

Firstly, thank you for being interested and supportive of your Club and for being here today at the AGM. It is an important meeting in the operation of the Club and sets future direction of the Club. Secondly, thank you for your support and encouragement during my first year as President. During 2012-13 I have had the privilege of working with a great group of members who formed the Committee, as well as some who while not actually being on the Committee, provided great support, enthusiasm and drive.

If I may just focus on the out-going Committee, I would like to thank our Treasurer Greg VK2CW for his invaluable skills in managing the financial matters of the Club. Our Secretary Barrie VK2ABD worked tirelessly over the year. Barrie recently saved the Club over $500 by negotiating a new insurance deal. Our Vice President Geoff VK2GL has provided a raft of activities for us to consider, perhaps the most obvious being the 2013 Australia Day activity at Speers Point Park. Geoff was also instrumental in floating the ‘boot sale’ concept which has proved most successful in attracting non-members to the Club grounds. In particular I would like to thank these three gentlemen, along with all the Committee members, for their invaluable input into Committee discussions and decisions.

There are many people involved in the successful operation of a Club like Westlakes who deserve our vote of thanks. Many are ‘behind-the-scenes’ folk, such as the Editorial Team (including the proof readers), the News Team and the Maintenance Team. With a building such as ours, there are always matters to attend to, ranging from blocked toilets to blocked roof gutters and valleys. Once again there has been a lot of work put into the Club over the past year. A big ‘thank you’ to those members who tackled - and resolved - these and
so many other problems. The Store has once again provided much needed financial support to the Club while providing quality items to Club members at great prices. Thank you Aly VK2AFZ. In this context it would be remiss of me not to mention the financial support provided to the Club by the Bureau, ably led by Alex VK2ZM. The Canteen has been admirably managed primarily by Diane VK2FDNE, Michael VK2CCW, Barry and Penny, with help from Chris. Many thanks for some great food options folks, especially the afternoon tea following monthly General Meetings.

The last year has seen the Club getting back to its motto: ‘Progress through Activity’. This has come about in no small measure to the enthusiasm of our Projects Officer Norm VK2KNC. His capacity to generate enthusiasm for projects has been invaluable. In the past 12 months we have seen members building the Valve Regenerative Receiver and the 40 m QRP transceiver. It’s been great to see the Activities Room so busy. Thank you Norm.

Club activities have also included our traditional involvement in the Lighthouse and Lightships Weekend in August where we ‘activate’ the lighthouse at Norah Head. We have been involved in this weekend for some years now and while it isn’t a contest, it is a fun event for Club members to be involved with.

**Amendment to Constitution**

Members will be aware that at the Special General Meeting held on 2 March 2013, the options of Postal Voting and Proxy Voting were removed from the Constitution.

**Financial Issues**

It would be remiss of me not to address this matter. While our Treasurer will provide a Statement reporting on the financial situation, it is clear that we must address the matter with some urgency. This year we will be operating at a deficit of some $4,000 and will have to draw on our reserves to keep the cheque book in the black. Quite simply our income has not kept pace with the increases in the ‘standing charges’ which we must pay. We have initiated a number of steps to address this shortfall however we will also be asking members for their thoughts on how to increase income while causing the least financial impact on the members.

**Planning for 2013/14**

With the support of a number of members, we are planning on creating a group of WIA-approved Assessors so that the Club will be able to assess new folk interested in ham radio and hopefully welcome them into the world of amateur radio. There are a number of assessments to be undertaken as part of the accreditation process, however we believe this will help us address a serious shortfall of assessors in the area. Dennis VK2XDW, Geoff VK2GL, Barry VK2BZ, and yours truly are currently undertaking the required training.

In conclusion, notwithstanding the financial situation, overall we are in a sound position. With the increasing involvement of members in projects and activities and the resolve to look at educational issues impacting on potential members of our hobby, I believe the Club can look forward to an even better year.

Steve Beveridge VK2LW

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being less than a centimetre long. It could be used to operate laptops and mobile phones for months doing away with the need for recharging. Experts believe it could be phasing out batteries in such items within just six years. The engine, minute enough to be balanced on a fingertip, has been produced by engineers at the University of Birmingham, UK.

The breakthrough is an enormous step forward. Devices which need re-charging or new batteries are currently a problem but in a few years will be a thing of the past. Other applications for the engine include medical and military uses, such as running heart pacemakers or mini reconnaissance robots. At present, charging an ordinary battery to deliver one unit of energy involves putting 2,000 units into it. The little engine, because energy is produced locally, is far more effective.

One of the main problems faced by engineers who have tried to produce micro motors in the past has been the levels of heat produced. The engines got so hot they burned themselves out and could not be re-used. The Birmingham team overcame this by using heat-resistant materials such as ceramic and silicon carbide. What better place to have the second industrial revolution in nano-technology than where the first took place, in the heart of the West Midlands, UK.

*Courtesy of Les VK2LT*

**ANTI-RAPE UNDERWARE**

Following the violent gang-rape of a New Delhi woman last year that made international headlines, engineering students in India have created anti-rape underwear that they say will prevent sexual assault. Called Society Harnessing Equipment, or SHE, the device will deliver up to 82 electric shocks of 3800 kV to an attacker, according to The Times of India.

To prevent the wearer from being shocked, SHE's inner side is "insulated with a polymer", according to creators Niladri Basu, Manisha Mohan and Rimpi Tripathy, students at SRM University, Chennai. The device is also equipped with GPS that can deliver alerts to police and the victim's parents. "Because lawmakers take ages to come up with just laws and even after that, women are unsafe," said Mohan and Tripathy. "Hence, we have initiated the idea of self-defence, which protects the women from domestic, social and workplace harassment." They added that they plan to incorporate Bluetooth into SHE, so "stress messages" can be sent instantly. *Courtesy of The Melbourne Age*
In any age but the present this question, if seriously asked, would have been answered by a chorus of jeers, says a writer in "Munsey's Magazine." So far beyond the pale of possibilities has the visiting of other worlds always appeared that writers of fiction have felt free to treat the idea sportively, describing thrilling journeys in space in impossible vehicles, while their readers have no more been misled than by a tale of Aladdin's lamp. Nethertheless the thought of exploring distant planets, pausing en route to view the further side on the moon, so tantalisingly turned from us, is one that fires the human most profoundly.

It is a dream to awake of children and the keen interest of sober maturity. Moreover, it is not, like perpetual motion, or squaring the circle, a logical impossibility. The worst that can be said is that it now looks as difficult to us as the crossing of the Atlantic must have once appeared to the naked savage upon its shore, with no craft but a fallen tree, and no paddle than his empty hands.

The impossibility of the savage became the triumph of Columbus, and the dream of the 19th century may become the achievement of the 20th. And there is no doubt in the mind of the present writer that before many generations pass scientists will begin to treat the question of sky travel as a problem worthy of careful and sympathetic investigation. The query may now arise, "What is the moon good for even if man succeeds in reaching it?" We know it to be a barren, rocky world, without air or moisture, unspeakably cold at night, and below the freezing point at noon. However man could abide there for a time in thick-walled houses and could walk out of doors in air-tight diver's suits. Scientists would find in the lunar wastes fresh fields for exploration.

Tourists of the wealthy and adventurous class would not fail to visit the satellite and costly hotels must be maintained for their accommodation. History is not always particular to follow the precise path laid out for it by the prophets, yet in the long run it never fails to achieve larger things than the seer dared to predict. It is too much to suppose that after visiting the Queen of the Night, our only near neighbour, pioneers will try the long voyage to Venus, Mars, and other planets of our system, finding some of them even more interesting than the moon.

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Scientists have built the smallest petrol engine, tiny enough to power a WATCH. The mini-motor, which runs for two years on a single squirt of lighter fuel, is set to revolutionize world technology. It produces 700 times more energy than a conventional battery despite

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These poles are funny places. As well as having no time, they only have one direction. If you stand at the North Pole, no matter which direction you turn, you will face south and you can only take a step south. But take one step south and time starts and north, east and west appear.

The reason is of course that time zones are determined by lines of longitude and that all falls apart at either pole where all longitudinal lines meet. In reality, both the North and South Poles use UTC time taken from Moscow, Russia for the North and Christchurch, New Zealand for the South.

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HRSA members hold regular meetings at a number of locations around Australia. For full information on all the activities, Google HRSA.
HEARD AFTER 128 YEARS

The voice of Alexander Graham Bell has been identified for the first time, in a recording from 1885. On the wax-disc recording, the telephone inventor says: "Hear my voice, Alexander Graham Bell." The recording is among the earliest held by the Smithsonian Institution, which runs the National Museum of American History.

Bell's voice was recorded on to the disc on 15 April 1885 at his Volta laboratory in Washington. As well as saying his name, he also recites a series of numbers and lines from several Shakespeare plays. The sound clip has been posted online. "Identifying the voice of Alexander Graham Bell, the man who brought us everyone else's voice, is a major moment in the study of history," said museum director John Gray. "It enriches what we know about the late 1800s, who spoke, what they said and how they said it."

The disc was too fragile to play using a needle so the museum, along with researchers at the US Library of Congress and the Lawrence Berkeley National Laboratory, developed an alternative play-back system that used light and a 3D camera to turn its bumps and grooves into sounds. Also identified was the voice of Alexander Melville Bell, the inventor's father, in a recording from 1881.

From BBC News

THE MICHAEL OWEN PLAQUE

IARU Region 3's highest scoring single operator at the IARU HF Championship in July will receive the Michael Owen Plaque. In announcing the new plaque, the Wireless Institute of Australia aims to encourage excellence in IARU Region 3 contesting in memory of his vast work and dedication.

Michael Owen served both the IARU and the WIA over many years. He was involved with the Amateur Radio Service since the 1960s, starting in Victoria, moving to the Federal arena, and served as IARU Vice President from 1989-1999. At the time of his death he was both the IARU Region 3 Chairman and WIA President. He passed away last September 22, aged 75.

The plaque in his memory is for any mode or bands and shall be awarded annually to the single operator scoring the most points in the IARU HF Championship, run for 24 hours on July 13-14.

Jim Linton VK3PC

A BOOK WITH A NEW COVER

Since its first edition in 1992, The Art and Skill of Radio-Telegraphy received accolades from the amateur radio community and is recognized as the standard reference work for newcomers and veteran CW ops alike. Two years in the making, the fifth revised edition includes hundreds of improvements to the text, an updated index, the addition of many new illustrations, a selection of historic telegraphy quotations and a new cover.

The Art and Skill of Radio-Telegraphy guides readers through all facets, technical and psychological, of first learning the International Morse code and then using time-proven techniques to improve operator speed and accuracy.

The author, William Pierpont N0HFF (Silent Key), discusses the Koch, Candler and Farnsworth techniques for acquiring the code. He also offers an overview of many of the mechanical learning devices used through the years to achieve proficiency. Telegraph keys and their proper use are described in detail. Other chapters cover amateur licensing and military training, banana boat and other “swings,” speed contests, abbreviations, the Phillips code and Marshall Ensor’s, W9BSP, on-the-air code and theory course.

To avoid pitfalls on the path to code a chapter on methods not recommended is included. For those wishing to broaden their code knowledge, one chapter is devoted to jump-start learning the American Morse (landline) code using what they already know. The Art and Skill of Radio-Telegraphy is sold at cost, plus shipping. To purchase the book, please visit: http://www.lulu.com/spotlight/K9YA

THE PASSING OF ALLAN SMITH-GOODE

I am very sorry to have to let you know that Allan Smith-Goode passed away early last April. Allan joined the HRSA in 1990 and almost immediately joined the Newsletter team. He joined the Committee in 1992 where he remained until 2000, serving as vice-president from 1996. Early in 1997 he assumed the position of acting President due to the resignation of the elected President at that time, he did not want to take over the title of President and returned to the Vice President position at the 1997 AGM. Even though he retired from the Committee in 2000 he remained active in the production of Radio Waves and the preparation of Marketplace. In 2002 he was appointed data base manager. In 2008 he rejoined the Committee as combined Membership Secretary and data base manager, a role he performed with distinction until he was forced to resign due to ill health. He took on the task of managing the Marketplace section of Radio Waves in 1997 and continued in this role until May last year.

From Ken VK2KJ
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In any age but the present this question, if seriously asked, would have been answered by a chorus of jeers, says a writer in "Munsey's Magazine." So far beyond the pale of possibilities has the visiting of other worlds always appeared that writers of fiction have felt free to treat the idea sportively, describing thrilling journeys in space in impossible vehicles, while their readers have no more been misled than by a tale of Aladdin's lamp. Nethertheless the thought of exploring distant planets, pausing en route to view the further side on the moon, so tantalisingly turned from us, is one that fires the human most profoundly.

It is a dream to awake of children and the keen interest of sober maturity. Moreover, it is not, like perpetual motion, or squaring the circle, a logical impossibility. The worst that can be said is that it now looks as difficult to us as the crossing of the Atlantic must have once appeared to the naked savage upon its shore, with no craft but a fallen tree, and no paddle than his empty hands.

The impossibility of the savage became the triumph of Columbus, and the daydream of the 19th century may become the achievement of the 20th. And there is no doubt in the mind of the present writer that before many generations pass scientists will begin to treat the question of sky travel as a problem worthy of careful and sympathetic investigation. The query may now arise, "What is the moon good for even if man succeeds in reaching it?" We know it to be a barren, rocky world, without air or moisture, unspeakably cold at night, and below the freezing point at noon. However man could abide there for a time in thick-walled houses and could walk out of doors in air-tight diver's suits. Scientists would find in the lunar wastes fresh fields for exploration.

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Courtesy of Geoff VK2YGA

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IS UTC TIME USED AT THE NORTH POLE?
(Or The South Pole For That Matter)

The funny thing is, if you are exactly at the North or South Pole, there isn't any time at all. They are the two places on earth of "perpetual youth" where you can never age and clocks have no meaning.

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so many other problems. The Store has once again provided much needed financial support to the Club while providing quality items to Club members at great prices. Thank you Aly VK2AFZ. In this context it would be remiss of me not to mention the financial support provided to the Club by the Bureau, ably led by Alex VK2ZM. The Canteen has been admirably managed primarily by Diane VK2FDNE, Michael VK2CCW, Barry and Penny, with help from Chris. Many thanks for some great food options folks, especially the afternoon tea following monthly General Meetings.

The last year has seen the Club getting back to its motto: ‘Progress through Activity’. This has come about in no small measure to the enthusiasm of our Projects Officer Norm VK2KNC. His capacity to generate enthusiasm for projects has been invaluable. In the past 12 months we have seen members building the Valve Regenerative Receiver and the 40 m QRP transceiver. It’s been great to see the Activities Room so busy. Thank you Norm.

Club activities have also included our traditional involvement in the Lighthouse and Lightships Weekend in August where we ‘activate’ the lighthouse at Norah Head. We have been involved in this weekend for some years now and while it isn’t a contest, it is a fun event for Club members to be involved with.

Amendment to Constitution

Members will be aware that at the Special General Meeting held on 2 March 2013, the options of Postal Voting and Proxy Voting were removed from the Constitution.

Financial Issues

It would be remiss of me not to address this matter. While our Treasurer will provide a Statement reporting on the financial situation, it is clear that we must address the matter with some urgency. This year we will be operating at a deficit of some $4,000 and will have to draw on our reserves to keep the cheque book in the black. Quite simply our income has not kept pace with the increases in the ‘standing charges’ which we must pay. We have initiated a number of steps to address this shortfall however we will also be asking members for their thoughts on how to increase income while causing the least financial impact on the members.

Planning for 2013/14

With the support of a number of members, we are planning on creating a group of WIA-approved Assessors so that the Club will be able to assess new folk interested in ham radio and hopefully welcome them into the world of amateur radio. There are a number of assessments to be undertaken as part of the accreditation process, however we believe this will help us address a serious shortfall of assessors in the area. Dennis VK2XDW, Geoff VK2GL, Barry VK2BZ, and yours truly are currently undertaking the required training.

In conclusion, notwithstanding the financial situation, overall we are in a sound position. With the increasing involvement of members in projects and activities and the resolve to look at educational issues impacting on potential members of our hobby, I believe the Club can look forward to an even better year.

Steve Beveridge VK2LW

being less than a centimetre long. It could be used to operate laptops and mobile phones for months doing away with the need for recharging. Experts believe it could be phasing out batteries in such items within just six years. The engine, minute enough to be balanced on a fingertip, has been produced by engineers at the University of Birmingham, UK.

The breakthrough is an enormous step forward.

Devices which need re-charging or new batteries are currently a problem but in a few years will be a thing of the past. Other applications for the engine include medical and military uses, such as running heart pacemakers or mini reconnaissance robots. At present, charging an ordinary battery to deliver one unit of energy involves putting 2,000 units into it. The little engine, because energy is produced locally, is far more effective.

One of the main problems faced by engineers who have tried to produce micro motors in the past has been the levels of heat produced. The engines got so hot they burned themselves out and could not be re-used. The Birmingham team overcame this by using heat-resistant materials such as ceramic and silicon carbide. What better place to have the second industrial revolution in nano-technology than where the first took place, in the heart of the West Midlands, UK.

Courtesy of Les VK2LT

ANTI-RAPE UNDERWARE

Following the violent gang-rape of a New Delhi woman last year that made international headlines, engineering students in India have created anti-rape underwear that they say will prevent sexual assault.

Called Society Harnessing Equipment, or SHE, the device will deliver up to 82 electric shocks of 3800 kV to an attacker, according to The Times of India.

To prevent the wearer from being shocked, SHE's inner side is "insulated with a polymer", according to creators Niladri Basu, Manisha Mohan and Rimpi Tripathy, students at SRM University, Chennai. The device is also equipped with GPS that can deliver alerts to police and the victim's parents. "Because lawmakers take ages to come up with just laws and even after that, women are unsafe," said Mohan and Tripathy. "Hence, we have initiated the idea of self-defence, which protects the women from domestic, social and workplace harassment." They added that they plan to incorporate Bluetooth into SHE, so "stress messages" can be sent instantly.

Courtesy of The Melbourne Age
FOR SALE

Palm Size Digital Multimeter

**RANGES**

DC volts 200mV to 500V, AC volts 250V 500V

DC Current 200uA, 20mA, 200mA, 10A

Resistance 200, 2K , 20K, 20M 200M Ohm

Input Impedance 10M Ohm

Continuity buzzer, Diode tester

Square wave output

Complete with leads, battery and Protective Holster

BIG 1/2" LCD DIGITS

CLUB MEMBERS SPECIAL $16 (Limited number available)

Contact Geoff VK2GL at Westlakes or email leage@optusnet.com.au

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**STAY SAFE FROM ZOMBIES**

The threat of a zombie pandemic, commonly known as a zombie apocalypse, is ever present in today's world of widespread genetic engineering and frequent international travel. Fortunately, Amateur Radio can help minimize the risk of such a catastrophe.

Amateur Radio is a non-commercial radio service that allows licensed operators to use various types of radio communications equipment to communicate with one another, both locally and around the globe, for both public service and recreational purposes. Amateur Radio operators, often referred to as "hams", are federally licensed by Industry Canada and are allowed to use specially allocated radio frequencies to carry out their operations. Hams come from all walks of life and are located all over the world.

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Firstly, thank you for being interested and supportive of your Club and for being here today at the AGM. It is an important meeting in the operation of the Club and sets future direction of the Club. Secondly, thank you for your support and encouragement during my first year as President. During 2012-13 I have had the privilege of working with a great group of members who formed the Committee, as well as some who while not actually being on the Committee, provided great support, enthusiasm and drive.

If I may just focus on the out-going Committee, I would like to thank our Treasurer Greg VK2CW for his invaluable skills in managing the financial matters of the Club. Our Secretary Barrie VK2ABD worked tirelessly over the year. Barrie recently saved the Club over $500 by negotiating a new insurance deal. Our Vice President Geoff VK2GL has provided a raft of activities for us to consider, perhaps the most obvious being the 2013 Australia Day activity at Speers Point Park. Geoff was also instrumental in floating the ‘boot sale’ concept which has proved most successful in attracting non-members to the Club grounds. In particular I would like to thank these three gentlemen, along with all the Committee members, for their invaluable input into Committee discussions and decisions.

There are many people involved in the successful operation of a Club like Westlakes who deserve our vote of thanks. Many are ‘behind-the-scenes’ folk, such as the Editorial Team (including the proof readers), the News Team and the Maintenance Team. With a building such as ours, there are always matters to attend to, ranging from blocked toilets to blocked roof gutters and valleys. Once again there has been a lot of work put into the Club over the past year. A big ‘thank you’ to those members who tackled - and resolved - these and
The photos on this page are of (top to bottom):

* Lucille Mazurek, age 29, ex-housewife, husband gone into the service. Working at the Heil and Co. factory in Milwaukee on blackout lamps to be used on Air Force gasoline trailers. Taken in June 1942.

* Julie Warburton, age 28, connecting ignition systems to commutators on multi-cylinder radial engines. Taken in August 1942.

* Marion Miller, age 31, checking electrical sub-assemblies at the Lockheed Vega aircraft plant at Burbank, California. Taken in July 1942.

Notice most of the women had lip stick and nail polish on. The lighting poses of the women makes it evident that the purpose of the photos was to encourage the war effort against the axis powers. Note also the almost complete lack of basic safety equipment. No safety glasses, and only one wearing gloves.

For some reason, women were good at electrical work. They were active in parachute packing and the manning of barrage balloons in addition to performing catering, meteorology, radar, maintenance, communications duties including wireless telephonic and telegraphic operation. They worked with codes and ciphers, analysed reconnaissance photographs, and performed intelligence operations.

"During a zombie apocalypse, the only reliable form of communication would be using Amateur Radio, as cellphones and the Internet will become useless", said Don Trynor, licensed Amateur Radio operator with the call sign of VA3XFT.

"By teaching people to use Amateur Radio, we can provide them with a valuable skill that they can use in times of emergency or natural disaster to stay in communication with one another," Trynor added. He further noted that while the likelihood of a zombie apocalypse actually occurring is very low, people who are prepared for one would also be prepared for any disaster that might actually occur.

From Central Toronto Amateur Radio Club Canada

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**WOMEN AND ELECTRICS IN WORLD WAR II**

All of these photographs were taken in 1942 on 4x5 Kodachrome transparency film. The photographer was Alfred Palmer. The quality and colour of the images is amazing considering they were taken over 70 years ago. Flying a WWII plane in those days was not the place for a woman but most of the aircraft were assembled, by women particularly the electrics and wiring.

The photographs on this page (top to bottom) show:

* Testing electric wiring at Douglas Aircraft Company. Long Beach, California. Taken in October 1942.
* Assembling switchboxes on the firewalls of B-25 bombers at North American Aviation's Inglewood, California, factory. Taken in February 1942.
* Drilling holes for electrical conduit on the horizontal stabilizer of a "Vengeance" dive bomber at the Consolidated-Vultee plant in Nashville. Taken in February 1942.

The reason for the high quality of the photographs is the combination of a large 4x5 format camera and the excellence of Kodachrome transparency film at that time. This film was the only modern colour type in the US and there was only one machine to process it, located in Rochester where these photo slides were produced.

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**BATTERY BREAKTHROUGH**

A new type of battery has been developed which its creators say could revolutionise the way we power consumer electronics and vehicles. The University of Illinois says its use of 3D-electrodes allows it to build "microbatteries" that are many times smaller than commercially available options, or the same size and many times more powerful. It adds they can be recharged 1,000 times faster than competing technologies. Innovation should help address the issue that while smartphones and other gadgets have benefited from miniaturised electronics, battery advances have failed to keep pace.

Batteries work by having two components - called electrodes - where chemical reactions occur. In simple terms, the anode is the electrode which releases electrons as a result of a chemical reaction. The cathode is the electrode on the other side of the battery to which the electrons want to flow and be absorbed - but a third element, the electrolyte, blocks them from travelling directly. When the battery is plugged into a device, the electrons can flow through its circuits making the journey from one electrode to the other. The "breakthrough" involved finding a new way to integrate the anode and cathode at the microscale. These battery electrodes have small intertwined fingers that reach into each other allowing the battery have a very high surface area even though the overall battery volume is extremely small.

A cross-section of the battery reveals the 3D-design of the research project's anodes and cathodes. It gets the two halves of the battery very close together so the ions and electrons do not have far to flow. Reducing the flowing distance of the ions and electrons means...
SEE THE STARS WITH LED LAMPS

Light pollution prevents nearby residents from being able to see many of the stars in the night sky. Now there is a new type of LED-powered streetlamp that will radically reduce light pollution. Current designs "leak" large amounts of light in unwanted directions, obscuring views of the stars, wasting energy and making it harder for drivers to see. Conventional street lamps - which use high-pressure sodium or mercury vapour - scatter up to 20% of their energy horizontally or vertically because it is difficult to control their beams. It is easier to direct light from LEDs because it is direct light from LEDs because it is being emitted from a smaller area. So, while manufacturers controlled the direction of the light rays from older lamps using a reflector typically made out of polished aluminium, they can now take advantage of lenses to be more precise.

The best LED (light-emitting diode) streetlamps on the market direct about 10% of their energy horizontally or vertically. The new LED invention could further reduce that amount to just 2%. The new lamp uses three features to ensure the vast majority of its light is limited to a pre-determined rectangular shape covering the road. Better to limit the light rays to where they are of use. A special "total internal reflection" lens for each LED designed to focus its light's rays so that they travel parallel to each other in a single direction. This is rather than criss-crossing and diverging from each other causing many to spill beyond the target area. A reflecting cavity into which the lens-covered LEDs are fitted. This helps "recycle" any light rays which fail to travel the desired path. A diffuser through which the focussed light passes to help tackle unwanted glare. This will also save on electricity costs since it requires between 10 and 50% less power to illuminate a section of road than current LED streetlamps. From BBC News May 2013

RESULT OF TENDER

In last month's magazine, tenders were invited from members for two Watkins-Johnson aircraft receivers. Three tenders were received and opened at the Westlakes AGM on 4 May. The successful offer came from John Trenning VK2BAR. Thank you to the other two members who expressed an interest.

ONLY THREE LEFT

At time of printing there are three Westlakes Club caps available at $20 each. Advise the Secretary, Barrie VK2ABD. His contact details are on Page 2.

A RARE ONE FOR VK2ATZ

A QSL card has arrived for the club from the latest new DXCC entity, South Sudan. The card reads, To: VK2ATZ. This confirms our 2-way SSB QSO Date: April 28, 2013 Time: 06:14 UTC Band: 10M Sigs: 59.

Now this country is a rare one indeed. Who could have been on the microphone this end? It was none other than Paul VK2HV. Good one Paul.
Here is very important information for everyone that uses Westlakes VK2RTZ repeater 146.775 MHz. To gain access you will need to have the 91.5 CTCSS tone programmed into your radio. If you don’t have this tone you will not be able to use it. This has come about due to the increasing incidence of interference that has been locking up the repeater. For those members and non members who have older radios and require TONE BOARDS the club is examining options for circuit boards and parts to make these as kits. If you would like to order one of these tone board kits please register your name with a committee member. The cost of the kit is unknown at this stage. More news on tone boards next month.

Remember, no 91.5 tone, no repeater access to 146.775 MHz.

The Alianza DxB Innovative multi-band two-way radio/smartphone device is an innovative docking case, which allows you to dock any iPhone, Android, or Blackberry smartphone and transform it to a self-programmable multi-band two-way radio with RoIP repeater capabilities. See http://kck.st/YXr17Y

The Alianza DxB's features include:

1. Innovative amateur radio gear - The DxB is the world's first docking case which allows you to dock your smartphone turning it into a two-way radio. Unlike Nextel, our device can communicate with other two-way radio and smartphones without an app.
2. Made for amateur radio operators, the DxB allows you to communicate to any two-way radio when out of range of cellular coverage. Plus its built-in battery helps recharge your phone and its rugged case helps protect it. Amateur radio community. The DxB was launched on 15 April 2013.

White space technology for 5G?

A pilot of innovative ‘white space’ technology in the UK, among the first of its kind in Europe. The technology uses gaps in radio spectrum, called ‘white spaces’, which exist in between frequency bands. In this instance, these bands have been reserved for digital terrestrial TV broadcasting and wireless microphones. Use of these white spaces will allow devices to transmit and receive wireless signals for applications such as broadband access for rural communities, Wi-Fi-like services or new ‘machine-to-machine’ networks. Following a successful completion of the pilot, Ofcom anticipates that the technology could be fully rolled out during 2014, enabling the use of white space devices across the country. White space technology will be one way of meeting the growing demand for data in the UK. Ofcom is separately planning to free up more spectrum2 in the future for the next generation of high-speed data services, already dubbed ‘5G’. This follows the successful completion of the 4G mobile spectrum auction last February. Compared with other forms of wireless technologies, such as regular Bluetooth and Wi-Fi, the radio waves used by white space devices will be able to travel longer distances and more easily through walls. This is because they would use the lower frequencies that have traditionally been reserved for TV.

Noble is the name

It is called Noble Radio NR-6N4 Two Band VHF Transceiver from a new amateur radio equipment manufacturer - Noble Radio. All of their products are designed and manufactured in the USA. Their first transceiver will be a DualBand Multimode VHF transceiver for 6 and 4mtrs. Band Coverage: 4M: 69.9 MHz to 70.5 MHz 6M: 50.0 MHz to 52.0 MHz Modes: SSB (USB & LSB) and CW. Frequency Coverage: 4M: 69.9 MHz to 70.5 MHz 6M: 50.0 MHz to 52.0 MHz. Output Power: 20 Watts CW or PEP SSB. Supply Voltage: 11.5 to 14 Volts Regulated DC (Negative Ground) at approximately 3.6 Amps at full output power.

The NR-6N4 has the capability of being controlled by a standard PC type keyboard that plugs into a rear connector. Once a keyboard is interfaced to the radio, it can be used to directly enter a frequency, skip directly to various functions by a single press of a function key without having to navigate the menus from the front panel buttons as well as being used to send CW via the keyboard. There is also a built in keyer function that operates with a standard keyer paddle for CW operation with or without a keyboard connection.

The all important question, how much? The price is expected to be around $800 US.

Ain't technology grand

Last month, I went to Canberra for the weekend and I was sitting on a footpath having breakfast as seems to be wont of most Canberrans. It was Sunday morning and I could not but help wonder, what happened at Westlakes the day before. My iPhone, of course. Google Westlakes Amateur Radio Club, the site pops up. Click on Blogs and lo and behold, is that Sunday morning's news, just as if I was at home and hearing it on 2 metres. It made me realise what a great job the scriptwriter, Richard VK2FRKO and the news promulgator, Dave VK2RD do every week.
A TALE OF A JIGGER

Ray Young VK2ARY/VK2ZL asked me several months ago if I had a Simplex Auto 'jigger' (PMG talk for a 'bug'). I did have one on loan a few years back, but I had to give it back. Would I like one, he asked? Would I what! So at last Wyong Field Day, Ray presented me with the Simplex Auto in the photos. It is complete, working and in original condition. What'smore the serial numbered name-plate is attached. It is number 628, making it one of the earliest ones produced. The Simplex Auto was invented in 1920 and made by Leo Cohen in Melbourne. He was a telegraphist. Cohen made the Simplex Auto until he went into the Army in 1939.

In the early days of telegraphy in Australia, most telegraphic equipment was imported. In the 1920's several individuals and companies started to manufacture both the simple hand key (up and down movement) and the semi-automatic type - jiggers. The Simplex Auto was very popular with PMG telegraphists and they are also highly regarded by amateur radio operators and can be heard on the amateur bands to this day. It was made at various times in left hand versions which are more of a rarity. Leo Cohen himself operated as a Telegraphist in the Chief Telegraph Office in Melbourne. His jigger became the default key in the PMG Department for good reason.

At this time, alternative jiggers in use did not hold their adjustments as well as a Simplex Auto which was considered as more reliable. When held in the right light, a clue to the original owner of Auto Simplex Number 628 can be seen. On the metal strap is: "Dave Martin - Mudgee."

Thank you very much Ray, this jigger has found a good home. Greg VK2CW

ANOTHER REPEATER FOR THE NEWCASTLE AREA

A new 2 metre repeater came on air last month. It is VK2RWH located on the Sugarloaf Range, west of Newcastle. The frequency is 147.150 MHz with a 600 positive offset. Please note that to access this repeater a CTSS tone frequency of 123 Hz is required. The repeater is operated by WICEN NSW.

Courtesy of Dennis VK2XDW

ANOTHER RICKETY KATE

The latest round of Rickety Kate was drawn at the club's Boot Sale in April. The winners were: $10 VK2NYL, $20 VK2JHB, $50 VK2FRKO. Thanks to all who supported the raffle and to Garry VK2DBI who ran the event. Technically, Rickety Kate is a trick-taking card game but ours is slightly different. We just raffle money. It seems to work.

THE BOOT SALE - TALK ABOUT WET!

Westlakes second Car Boot Sale went ahead at the club in April and it's hard to believe, the weather was worse than the event last year. Not many car boots were open due to the weather but there were about 10 tables selling off various goodies under the shelter of the rear awning. An estimated 50 to 60 members and visitors turned up, one was Tim VK4HFO from Lamb Island. On display were brand new screwdriver type HF mobile antenna from Roda Antennas. They are very well constructed and the quality was of a very high standard. Details of the vendor can be obtained from the club secretary and there is a mention in "For Sale" on page 19 if anyone is interested in purchasing one.

Michael VK2CCW was busy cooking on the BBQ while Diane VK2FDNE and Penny prepared the salad and bread for the steak and sausage sandwiches. On behalf of the Westlakes Committee, I would like to thank everyone who attended and made the day a great success. If we can juggle a fine day for the third Car Boot Sale, there will be 200 in attendance.

Richard VK2FRKO

START SAVING UP

The ACMA has announced that the annual cost of an amateur radio licence has risen to $73. That's an increase of 1.39 per cent. It could have been worse.

COP THAT!

This is from ABC News April 26. A Victoria court heard a woman went to her ex-husband's house because she had not been invited to his birthday party. She attacked him with a sledgehammer, a meat cleaver, a knife and a frying pan. Funnily enough, he suffered several stab wounds, cuts and bruises. If he had been an amateur radio man, I hope he owned an 817 and not a 520s. OUCH! (Hell hath no fury etc.)
The European Space Agency Herschel space observatory has exhausted, as planned, its supply of liquid helium coolant, concluding over three years of pioneering observations of the cool Universe. The mission began with over 2300 litres of liquid helium, which has been slowly evaporating since the final top-up the day before Herschel's launch on 14 May 2009.

The evaporation of the liquid helium was essential to cool the observatory's instruments to close to absolute zero, allowing Herschel to make highly sensitive scientific observations of the cold Universe. The confirmation that the helium is finally exhausted came on 1 May at the beginning of the spacecraft's daily communication session with its ground station in Western Australia, with a clear rise in temperatures measured in all of Herschel's instruments. Herschel has made over 35 000 scientific observations, amassing more than 25 000 hours of science data from about 600 observing programmes.

OLED technology is based on carbon-based materials that convert electricity into light. While LCD screens need a backlight to illuminate their crystals, OLED does not need a separate light source. With more than five years research behind developing the optimum curvature, the entire screen surface is equidistant from the viewer's eyes, eliminating the problem of screen-edge visual distortion and loss of detail. This allows the newer type of TVs to be made thinner, lighter and more energy-efficient than before, as well as offering the advantage of deeper blacks. In addition, the OLEDs can be fabricated onto a flexible plastic substrate rather than a rigid glass layer, making it easier to manufacture them into a curved screen. An OLED TV will be like having an IMAX in the lounge room.

FOR SALE BY TENDER
Offers are invited from members for the following item from a deceased estate. Kenwood TS680S transceiver. 100w 160m to 15m, 95w 10m, 10w 6m. Together with a matching Kenwood AT250 Automatic Antenna Tuner covering all HF bands including WARC. The transceiver and tuner are to be sold together and will not sold separately. This equipment is in good condition and has been tested operating perfectly in the Westlakes Cub Shack. Please submit offers over $400 in writing and in a sealed envelope addressed to the Secretary, WARC, PO Box 5, Boolaroo 2284. The tenders will be opened at the July monthly meeting to be held on 6 July 2013.

A NEW 70cm REPEATER
VK2RFI came on air last month located on Gan Gan Lookout. It is operated by WICEN but available for general use. The frequency is 439.625 (5MHz offset) with 123Hz tone.

NEW 24 GHz EME WORLD RECORD
Rex VK7MO has completed a 16383 km QSO with OK1KIR in the Czech Republic to claim the World record on 24 GHz. Rex used just a 1.14 metre dish and 10 watts which he has designed for portable operation, while OK1KIR used a 4.5 metre dish and 22 watts. This has been a 12 month project for Rex, which has involved working with Joe K1JT to produce improved decoders that can cope with the very wide spreading of signals on 24 GHz EME. Rex and Joe will be publishing this work in the next edition of DUBUS magazine which is devoted to VHF and Microwave Amateur radio.

From VK7 News
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Warren Payne VK2UWP

Internet Webmaster:
Geoff Clark VK2EO

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Geoff Linthorne VK2GL

Radio Callsigns
Club Callsign: VK2ATZ

Club Repeaters:
VK2RTZ 146.775MHz
VK2RZL 146.875MHz

Club Digipeater:
VK2RTZ 147.575 MHz
IRLP Node 6040
Echolink 172107

Club Activities:
Club Nets:
Club broadcast, Sunday 0900 146.775MHz followed by VK1WIA News.
Club Evening Broadcast Sunday 1900 followed by VK1WIA News
Call backs follow each cast
EZYB Net 146.775MHz Saturday 0800
Stone the Crows Net Saturday 3.588MHz 0600

Internet HomePage:
www.westlakesarc.org.au

Club Distance Record:
2m Simplex VK2FGM 2040 km
QRP CW VK2YA 2680 km

Note: Opinions expressed in this magazine are those of the contributors and do not necessarily coincide with those of the Executive nor the members in general.

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Westlakes Amateur Radio Club Inc. is an affiliated club with the Wireless Institute of Australia.

Club meeting: 1st Saturday of each month 13.30

FOR SALE

TET-Emtron TE-43 Tri-bander 14,21,28 with balun as new $499
JST antenna analyser fully assembled and operational $75
Charlie VK2CLH 04 2784 0257
email charliehunt1@bigpond.com

Mobile Master Antenna. A screwdriver type from Roda Antennas. Covers 80m to 10m continuously, has a purpose built ball bearing steel gear motor. All problems with other 'screwdriver types" have been designed out.
Ron 0404091804
email ron@roda-antennas.com.au

PROJECT CORNER

WANT ED

Squid Pole 9 or 10 metres
Barrie VK2ABD 49583359
email vk2abd@gmail.com

WATCH THIS SPACE

All is quiet on the project front this month but there are a few items under consideration. One is a tiny output cw beacon that can be operated on several bands.

If you have any ideas for a club project or a project enquiry contact Westlakes Project Officer Norm VK2KNC
email vk2knc@gmail.com
I took this photo, just after a small girl, tied her knitted dolly to a fig tree in Laman Street, Newcastle. She was about six years old. It was all about a protest attempting to prevent the destruction of two rows of Hills Fig trees that had formed an over-arching canopy. I asked the girl (in the company of her mother) what she thought her dolly would do. "It will save these trees from the bad people over there" She pointed to the Newcastle