The Propagator

Official Newsletter of the Illawarra Amateur Radio Society

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IARS meets at 19:30 Hrs. on the second Tuesday of each month (except January) in the SES LHQ Montague St. North Wollongong.

VK2AMW Since 1948

IARS PO Box 1838 Wollongong 2500.

LINUX

As I indicated in a previous issue of the Propagator, I will attempt to bring you some background on this amazing 'platform' and its development.

Linux has taken the computing world in a big way with a large impact. Such an impact it is used extensively in areas we don't even think of, like the IRLP system. The great advantage of Linux is that it's open and its distributed pattern has changed the nature of the computer industry.

What is Linux?

Linux is a Unix-like operating system, which offers a powerful networking, multi-tasking and multi-user environment. It can run on many hardware architectures, including x86 (that is 386, 486, 586, 686), Alpha, SPARC, PowerPC, ARM, S/390 (113M Mainframe) and many more. It includes hardware drivers for a cornucopia of devices, ranging from the latest graphics cards to old Sun Microsystems hardware. This has made Linux the platform of choice for those looking to keep up with cutting-edge technology or make use of older computer systems. The icing on the cake, however, is most certainly that it is free to use and distribute.

Linux, however, is only an operating system - it interfaces the computer's hardware to its users. This is distinct from an application base. You cannot use Linux unless you use other applications on top of it. Many of these applications are also freely distributed.

A large number of these applications have been sourced from the extensive work of the GNU development community and the Free Software Foundation, among other teams of application developers worldwide who have dedicated their time to producing programs for use by the Linux and Unix community. To these people, to Linus Torvalds, to all the Linux kernel developers, we are in debt.

Back in the late 1960s and early 1970s, the General Electric Company (GEC) was working with the Massachusetts Institute of Technology on a multi-user operating system called MULTICS. The Computing Science Research Centre at Bell Laboratories soon joined the project but withdrew because of the time it was taking to develop MULTICS.

In 1969, Ken Thompson, while working on the development of MULTICS at Bell Laboratories, wrote a game, which simulated the motion of the planets in the solar system. At this time, Thompson and his colleague Dennis Ritchie as well as others at Bell Laboratories, were working on a new type of file system. Importing the game to a PDIP-7, Thompson implemented the first version of the Unix file system. The operating system flowed from there up.

In 1973, Thompson and Ritchie rewrote the Unix operating system in the newly developed C programming language. From there Unix was released to universities for educational purposes, and with their significant input it has grown, mutated and evolved into a group of operating systems preferred by the high-end and mission -critical computing industry.

Where did it all begin?

While studying engineering at the University of Helsinki in Finland, Linus Torvaids wanted to use Unix on his own computer but was unable to afford the proprietary Sun Microsystems operating system and the hardware it ran on. Inspired by Minix, a Unix teaching tool that runs on the Intel architecture, Linus began writing his own Unix-like operating system on a 386 PC.

Towards the end of 1991, Linus had completed a kernel that booted on the Intel architecture. The new operating system was coined Linux - a pun on Linus's name and Unix - and the source code was made available over the internet. Although the source code is public and open to contribution, Linus still personally presides over its development.

Where is it going?

From its humble beginnings, Linux has become a phenomenon in computer operating systems in less than a decade. This rapid rise can be accredited to Linux being freely available and accessible via the Internet. It is little wonder then that, given its stability, Linux is used on a huge number of Web servers.

Linux, however, is not confined to this role. Many people use Linux productively on their home computer and although it is almost impossible to gauge how many people are actually using it (since it is freely available), Linux has proven itself a viable and cost-effective alternative to Microsoft Windows and iow-end deployments of Sun Solaris, IBM AIX and HP UX.

Open source model

While learning about Linux you are bound to come across the term "open source". Open source is a common expression for software, which is released under the GNU General Public License, or a license, which allows for the public distribution and usage of program code.

The GNU General Public License is a product of the Free Software Foundation founded by Richard Stallman in the mid 1980s. Stallman wanted to create free software for the Unix operating system due to the restrictive nature of proprietary software. This was termed the GNU project, where GNU is a recursive acronym for GNU's Not Unix.

Essentially, the GNU General Public License states that anyone is free to use, distribute and modify software that is released under the license so long as the source code for the software is also made available. Hence, the term "free" refers to the open nature of the software as much as the cost. The Linux kernel itself is released under the GNU General Public License along with many other programs that run on Linux. There are, however, many other programs written for Linux that are not released as open source and remain proprietary such as Oracle and Corel's WordPerfect Office 2000.

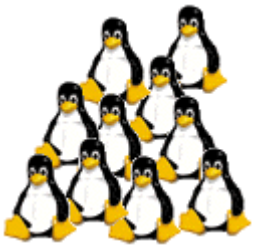
The last year or so.

Many of the world's major hardware and software vendors are prepared to put their weight behind Linux and not just sit on the fence to see what Linux is capable of.

For hardware vendors, Linux is seen as attractive because it is stable, free to deploy, and the source code is available making it highly configurable to specific needs. Examples of this adoption are no more apparent than in smaller computers such as handhelds and Internet

appliances. Intel and ThinkNic have both released network computers, which are aimed at people who only want to read their e-mail and surf the Internet. To gain an idea of how versatile the operating system is, IBM has now successfully ported Linux from a wristwatch to an S/390 mainframe. In terms of software, Linux now lays claim to many programs that make it a viable prospect for both the desktop and server arenas.

In closing it is worth the trip http://linuxworld.com.au and have a browse, yes if you embrace the Linux system you will serf the web with the Linux browser.



Materials sourced from the net and PC Mag.

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ILLAWARRA AMATEUR RADIO SOCIETY.

GENERAL MEETING TUESDAY 12th FEBRUARY, 2002.

Meeting opened at: 7.42pm.

Members present: 15.

Apologies: TBF, TNK, WM, BES, ZRF, UBE

Correspondence In: Dan VK2TAV re membership. Rob VK2TNK re website, Wayne VK2TBF re web site, John VK2XGS re website, LES VK2KLD re web site. Thank You from Jeff Howell families.

News Letters in: B.A.R.G. News, Smoke Signals, Dragnet, Central Coast Field Day,

Correspondence out: Propagator, W.1.A. re- meeting, Letter to Albion Park Rail Scouts.

Correspondence Moved: TTH. Seconded: XIC.

Minutes Confirmed: Moved: KEL Seconded: EZI).

Matters Arising: NIL.

Treasurer's Report: Moved; CAV. Seconded: TTH.

General Business: Membership Darryl M. Toepfer. An executive decision that due to insufficient numbers for the Wyong Field day that the Bus be cancelled.

1

Reports: John BHO gave a report on QSI, Cards and places across the world he had made contact with.

Norm ZXC gave a report on Transmission Towers both Radio and TV and provided us with Cables that were damaged by lightning.

Meeting closed at: 9.15pm.

Coming Events

SSTV – All welcome to the Monday evenings Net time between 19:30 - 20:00 Hr.Local, 10:30 - 11:00 Hrs Zoolu on 146.975 MHz.

April Meeting: 6 Apr 02
This meeting will be held at Cataract Dam.
Arrival from 10:30AM
Meeting set to start at 11:30AM
BBQ BYO etc

"M" Theory

Questions for those working towards an amateur exam. Or just test yourself. *Answers on page 8*

1. Measurement with a reflectometer shows that the forward power in a transmission line is 225 Watts while reflected power is 25 Watts. What is the voltage standing – wave ratio (VSWR).

a) 9 : 1.
b) 1 : 1.
c) 10 : 1.
d) 2 : 1.

2. Ionization in the ionosphere is caused primarily by the:

a) Magnetic effect of the Earth.
b) Magnetic effect of the Sun.
c) Ultraviolet and other radiation from the Sun.
d) Rotation of the Moon.

3. Which of the following L-type filters is the best bandstop filter?

a) Series-resonant LC circuit in series with the load and parallel-resonant LC circuit in shunt.
b) Parallel-resonant LC circuit in series with the load and series-resonant LC circuit in shunt.
c) Series-resonant LC circuits in series and in parallel with the load.
d) Parallel-resonant LC circuits in series and in parallel with the load.

4.Absorption of radio frequency energy travelling as a ground wave will increase:

a) Over salt water.
b) With vertical polarisation.
c) With decreased frequency.
d) With increased frequency.

5. A wave-trap is an elementary form of:

a) Band stop filter.
b) Band pass filter.
c) Low pass filter.
d) High pass filter.

6.Which of the following antennas commonly used at VHF / UHF is omnidirectional?

a) 5/8 wavelength vertical.
b) Cubical quad.
c) Yagi.
d) ½ wavelength horizontal dipole.

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"M" Theory

Answers:-

1. (d)
2. (c)
3. (b)
4. (d)
5. (a)
6. (a)

Accountant Jokes

What's the definition of an accountant?
Someone who solves a problem you didn't know you had in a way you don't understand.
What's the definition of a good tax accountant?
Someone who has a loophole named after him.
When does a person decide to become an accountant?
When he realises he doesn't have the charisma to succeed as an undertaker.
What does an accountant use for birth control?
His personality.
What's an extroverted accountant?
One who looks at your shoes while he's talking to you instead of his own.
What's an auditor?
Someone who arrives after the battle and bayonets all the wounded.

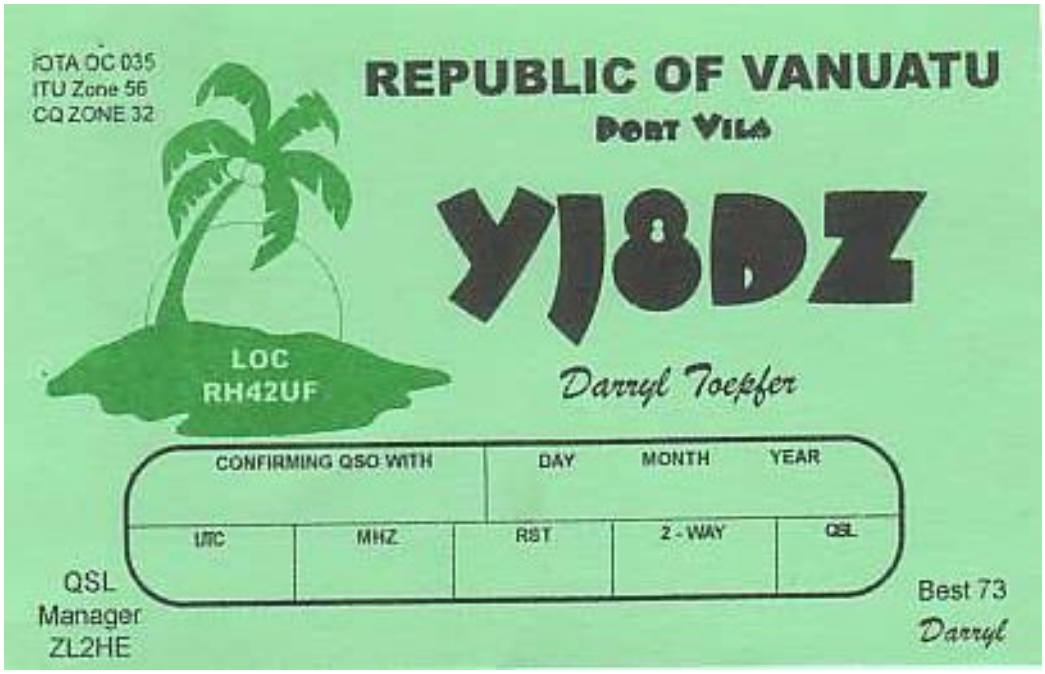
YJ land !

We have a good contact in YJ land.

A new member of the Club.

Daryl Mtoepfer YJ8DZ

He most likely won't be attending many meetings as he spends most of his time in Vanuatu (Republic Of). He lives in the capital Port Vila.
This is his QSL Card



Contest?

TARA PSK31 Rumble

20 April 0000z - 2400Z

Mode: PSK only. 80 15,10, 6 Meters. Work stations once per band.

Exchange: name; state or province / DX send dxcc prefix. Operate 1 of 6 categories.

The Club Challenge, special rules for this on web site below!

Power: *Normal*: 100w max. *Great:* 20w max. *Super*: 5w max.

Final score is QS0s (W + VE + JA + W call areas + 1 point per DX incl. your own).

Multipliers count once per band.

To be valid, scores must be received via our online score submission form found at http://www.qsl.net/wm2u/ score.htm, or e-mail Logs to wm2u@n2ty.org , by last entry date: 18 May, 2002. Logs must be available for review if requested.

Please read web rules for details on http://www.qsl.net/ wm2u/rumble.html or http://www.n2ty.org. Info e-mail to Bill Eddy, ny2u@n2ty.org or Ernie Mills, wm2u@n2ty.org

With thanks from WIA Amateur Radio, March 2002

Rules Harry Angel Memorial Sprint

1100z- 1246z Tue 25 April, 2002

This is now an annual Contest to remember VK's oldest licensed operator, Harry Angel. Please note the time length of the Contest-106 minutes, Harry's age when he died in 1998. It is open to all appropriately qualified HF operators.

- Object is to make as many contacts as possible.
- Band 80 metres, using modes CW and SSB.
- Categories: Single Operator (CW, Phone, Mixed) and SWL.
- Frequencies: CW 3500-3700 kHz, Phone: 3535-3700 kHz. Contacts in DX window not permitted.
- Exchange RS(T) and serial number; revert to 001 if 999 reached.
- Score two points per CW QSO and one point per Phone QSO. Stations may be worked once only per mode.
- Logs must show time UTC; callsign worked (both callsigns for SWLs; mode; RS(T); serial numbers sent and received for each QSO.
- Send summary sheet showing name and date of Contest; name, address and callsign of entrant; category entered; points claimed and a signed declaration that the rules and spirit of the Contest were observed.

Send written logs to:
Harry Angel Sprint,
WIA Federal, PO Box 2175,
Caulfield Junction, 3161

by Friday, 24 May, 2002.
Logs may be sent by e-mail to: contests@wia.org.au
With thanks from WIA Amateur Radio, March 2002

The IARS Repeaters

The Illawarra Amateur Radio Society
operates several repeaters on the Illawarra South Coast.
Below is the listing of frequencies in use.

Access tons are not required.
Their status is also displayed along with the type of repeater.
The listing below also includes the Satellite Gateway and BBS run by John Simon VK2XGJ.

Call sign	Freq In/Out	Type	Location	Linked To
VK2RUM	29.520/29.620	Voice	Knights Hill	Off Air
VK2RBT	146.075/146.675	Voice	Mt Boyne	RMP & RIS
VK2RMP	146.250/146.850	Voice	Maddens Plains	RIS & RBT
VK2RIS	146.375/146.975	Voice	Saddleback Mt	RBT & RMP
VK2RUW	433.225/438.225	Voice	Knights Hill	Off Air
VK2RMP	433.725/438.725	Voice	Maddens Plains	RGN, RHR RGI & RTW
VK2AMW-3	144.700/144.700	NODE DIGI	Maddens Plains	VK2AMW-4
VK2AMW-4	144.925/144.925	NODE DIGI	Maddens Plains	VK2AMW-3
VK2AMW-5	147.575/147.575	NODE DIGI	Mt Boyne	
VK2AMW-7	147.575/147.575	NODE DIGI	Mt Murray	
VK2XGJ	53.100/53.100	BBS / SATGATE	Dapto	
VK2XGJ	144.700/144.700	BBS / SATGATE	Dapto	
VK2XGJ	147.575/147.575	BBS / SATGATE	Dapto	
VK2XGJ	440.050/440.050	BBS / SATGATE	Dapto	

President	Brian Farrar	VK2UBF	Ph 4267 2296 0415 430 676
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	Jim Beaver	VK2ZWG	
	Peter Read	VK2HPR	
Repeater Offr	Rob McKnight	VK2MT	Ph 040 8480630
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	Chris Stephens	VK2XBC	
	Phil Howchin	VK2TPH	
	Brian Farrer	VK2UBF	
	Simon Ferrie	VK2XQX	
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	Keith Curle	VK2OB	
	Graeme Dowse	VK2CAG	
	Lyle Patison	VK2ALU	
	Rob McKnight	VK2MT	

Club meetings are held 7:30 PM on the second Tuesday of each month, (except January) at the SES Building Montague Street North Wollongong

Committee meetings are held on the third Wednesday of each month.

Membership:

Full - $20 Concession - $15. Membership expires after the AGM in August.

Visit the Illawarra Amateur Radio Society inc. Homepage IARS@1earth.net.au

IARS Email IARS@1earth.com.au

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