



The Propagator



CLUB CALL VK2AMW
VOLUME 03/06 ISSUED MARCH, 2006
NOW PRINTED MONTHLY
WORTH MORE THAN PETROL

MEETINGS HELD SECOND TUESDAY OF EACH MONTH (EXCEPT JANUARY).
S.E.S BUILDING MONTAGUE STREET, NTH WOLLONGONG. STARTING AT 7:30PM.
THE PROPAGATOR IS THE OFFICIAL NEWSLETTER OF
ILLAWARRA AMATEUR RADIO SOCIETY INC.
PO BOX 1838 WOLLONGONG 2500.
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EDITOR- MAEVA BENNETT VK2HUG

EDITORIAL

This months issue will be quite small, and for that I must say sorry. Unfortunately, I currently have family commitments that must take precedence. I am sure you can understand my predicament – I have endeavoured to make it as interesting as I can, with the time restraints under which both John and I are working under currently.

As most of you know we are having difficulty with our Club rooms at the SES. The Montague Street building was broken into over the Christmas period, and the locks have been changed. The Committee is following up the situation, and will let you know the outcome as soon as possible.

I hope you enjoy reading this issue.

Maeva Bennett
VK2HUG
Editor.

THE ILLAWARRA AMATEUR RADIO SOCIETY INC EXECUTIVE AND COMMITTEE FOR 2006

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Canteen. Peter Reid VK2HPR.

Web Master. Michael Eckardt VK4GNV

Club Broadcasts for 2006 – Each Tuesday, except Meeting night, at 7.30 pm with Geoff, Jack and Peter

Next Club Meeting for 2006 – Tuesday 14th March at 7.30 pm

Guest Speaker – Darren Siu VK2TUP from BLUEsat

Collection of ticket books Mothers Day for Fathers Raffle – see later in this edition for details.

Name badge collection for badges ordered at the December and February Meeting.

Amateur radio satellite frequencies

Amateur Radio Satellites					
Satellite		Flight		Frequencies	
Short Name	Long Name	Launched to Space	Type of Orbit	Uplink MHz	Downlink MHz
AO-7	AMSAT OSCAR 7 Phase 2 No. 2 [history]	1974 Nov 15	low earth orbit circular (sun-sync)	145.850-145.950 432.125-432.175	29.400-29.500 145.975-145.925 29.502 beacon 145.975 beacon 435.100 beacon 2304+ beacon
AO-10	AMSAT OSCAR 10 Phase 3 No. 2 [history]	1983 Jun 16	highly elliptical	435.030-435.180	145.825-145.975
AO-16	AMSAT OSCAR 16 PACSAT [pacsats explained]	1990 Jan 22	low earth orbit circular (sun-sync)	145.90, .92, .94, .96 packet 1200 bit/s FM FSK	437.0513 packet 1200 bit/s PSK
AO-27	AMRAD OSCAR 27 EYESAT	1993 Sep 26	low earth orbit circular (sun-sync)	145.850 FM voice repeater	436.795 FM voice repeater
AO-40	AMSAT OSCAR 40 Phase 3D	2000 Nov 16	highly elliptical	435.550-435.800 1269.250-1269.500 ssb & cw	2401.225-2401.475 2401.323 telemetry (145.898 telemetry)
AO-51	AMSAT OSCAR 51 Echo	2004 Jun 29	low earth orbit circular (sun-sync)	435.300 FM voice 435.150 FM voice QRP 2401.200 FM voice 435.150 digital 2401.200 FM voice 2401.200 digital 435.300 FM voice 435.150 digital 435.300 digital	145.920 FM voice 145.880 FM voice QRP 145.920 FM voice 145.860 digital 1268.700 FM voice 1268.700 digital 1268.700 FM voice 1268.700 digital 28.140 digital
DO-17	DOVE OSCAR 17	1990 Jan 22	low earth orbit circular (sun-sync)	DOVE is off the air	145.825 fm 2401.220
FO-20	Fuji OSCAR 20 JAS-1b	1990 Feb 07	low earth orbit	145.900-146.000	435.800-435.900 435.795 (cw beacon)
FO-29	Fuji OSCAR 29 JAS-2	1996 Aug 17	low earth orbit	145.900-146.000 145.85, .87, .89, .91 packet 9600 bit/s FM FSK	435.800-435.900 435.795 (cw beacon) 435.910 packet 9600 bit/s FM FSK
GO-32	Gurwin OSCAR 32 TECHSAT-1b	1998 Jul 10	low earth orbit circular (sun-sync)	–	435.225 telemetry
IO-26	ITAMSAT OSCAR 26	1993 Sep 26	low earth orbit circular (sun-sync)	145.875 fm 145.900 fm 145.925 fm 145.950 fm	435.822 ssb APRS digipeater on
KO-23	KITSAT OSCAR 23	1992 Aug 10	low earth orbit circular	145.900 fm	435.170 fm
KO-25	KITSAT OSCAR 25	1993 Sep 26	low earth orbit circular (sun-sync)	145.98 packet 9600 bit/s FM FSK	436.50 packet 9600 bit/s FM FSK
LO-19	LUsat OSCAR 19	1990 Jan 22	low earth orbit circular (sun-sync)	145.84 fm 145.86 fm 145.88 fm 145.90 fm	437.126 cw telemetry 437.125 cw 437.150 ssb
MO-46	Malaysian OSCAR 46	2000 Sep 26	low earth orbit	145.850 digital	437.325 digital

	TiungSat-1 also amateur-related		circular (sun-sync)	145.925	
NO-44	Navy OSCAR 44 PCsat	2001 Sep 30	low earth orbit circular (sun-sync)	145.827 digital APRS	145.827 digital
PO-28	POSAT OSCAR 28	1993 Sep 26	low earth orbit circular (sun-sync)	145.975 packet	435.075 packet
PO-34	PanSat OSCAR 34	1998 Oct 29	low earth orbit circular	436.500 packet	436.500 packet
RS-12	RadioSputnik 12 RadioSport 12	1991 Feb 05	low earth orbit circular (polar)	21.210 - 21.250 cw/ssb 145.910 - 145.950 cw/ssb 21.129 robot 145.831 robot	29.410 - 29.450 cw/ssb 145.910 - 145.950 cw/ssb 29.408 beacon 29.454 beacon 145.912 beacon 145.958 beacon
RS-13	RadioSputnik 13 RadioSport 13	1991 Feb 05	low earth orbit circular (polar)	21.260-21.300 cw/ssb 145.960-146.000 cw/ssb 21.139 robot 145.840 robot	29.460-29.500 cw/ssb 145.860-145.900 cw/ssb 29.458 beacon 29.504 beacon 145.862 beacon 145.908 beacon
RS-15	RadioSputnik 15 RadioSport 15	1994 Dec 26	low earth orbit	145.858-145.898 ce/ssb	29.354-29.394 cw/ssb 29.352 beacon 29.399 beacon
RS-16	RadioSputnik 16 RadioSport 16	1997 Mar 04	low earth orbit circular	145.915 - 145.948 cw/ssb	29.415 to 29.448 cw/ssb 29.408 beacon 29.451 beacon 435.504 beacon 435.548 beacon
RS-17	Mini-Sputnik	1997 Nov 04	low earth orbit hand launched from Mir space station	–	145.820 beacon
SO-33	SedSat-1 OSCAR 33	1998 Oct 24	low earth orbit	145.915 - 145.975 ssb/cw/fm/am/packet 1,266.684 - 1,266.690 fsk	29.350 - 29.420 ssb/cw/fm/am/packet 437.910 fsk
SO-35	SunSat OSCAR 35	1999 Feb 23	low earth orbit circular (sun-sync)	436.290 FM voice repeater	145.825 FM voice repeater
SO-41	SaudiSat-1a OSCAR 41	2000 Sep 26	low earth orbit	145.850 FM voice	436.775 FM voice 437.075 fm/packet
SO-42	SaudiSat-1b OSCAR 42	2000 Sep 26	low earth orbit	–	436.775 fm/packet
SO-50	SaudiSat-1c OSCAR 50	2002 Dec 20	low earth orbit	145.850 FM voice	436.795
TO-31	Teamsat OSCAR 31 TMSAT-1	1998 Jul 10	low earth orbit circular (sun-sync)	145.925 packet 9600 bit/s FM FSK	436.925 packet 9600 bit/s FM FSK
UO-11	UoSAT OSCAR 11 UoSAT-2	1984 Mar 01	low earth orbit circular (sun-sync)	–	145.825 beacon 435.025 beacon 2401.500 beacon
UO-14	UoSat OSCAR 14	1990 Jan 22	low earth orbit	145.975 FM voice repeater	435.070 FM voice repeater
UO-22	UoSat OSCAR 22	1991 Jul 17	low earth orbit circular (sun-sync)	145.900, .975 packet 9600 bit/s FM FSK	435.120 packet 9600 bit/s FM FSK
UO-36	UoSat OSCAR 36 UoSAT-12	1999 Apr 21	low earth orbit circular	145.960 packet 9600 bit/s FM FSK	437.025, .400 packet 9600 bit/s FM FSK
VO-52	VUSat OSCAR 52	2005 May 5	low earth orbit	435.250	145.900

	HamSat		circular		145.936 beacon 145.860 beacon
WO-18	WEBERSAT OSCAR 18	1990 Jan 22	low earth orbit circular (sun-sync)	–	437.075 beacon 437.100 beacon
UPLINK: TRANSMISSION FROM GROUND TO SATELLITE DOWNLINK: TRANSMISSION FROM SATELLITE TO GROUND BEACON: TELEMETRY DATA TRANSMISSION TO GROUND QRP: LOW POWER EXPERIMENTAL APRS: AUTOMATIC POSITION REPORTING SYSTEM					

Amateur Radio Aboard Piloted Spacecraft

Spacecraft		Flight		Frequencies	
Short Name	Long Name	Launched to Space	Type of Orbit	Uplink MHz	Downlink MHz
ARISS	Amateur Radio on the International Space Station	2000 Sep 8	low earth orbit (piloted spacecraft)	144.490 voice 145.200 voice 145.990 packet 437.800	145.800
MAREX	aboard Mir space station	1986 Feb 18	deorbited (piloted spacecraft)	Mir Station has dropped from orbit	145.55 fm/packet 145.85 fm/packet
MIREX	Mir Amateur Radio EXperiment [Russia]				
SAFEX	Mir International Amateur Radio EXperiment [U.S.] Space AmateurFunk EXperiment [Germany]				
SAREX	Space Amateur Radio EXperiment aboard some space shuttles	from 1983	low earth orbit (piloted spacecraft)	144-145 fm/packet	144-145 fm/packet

Good Internet Links for further information – for those who have the internet and receive the Propagator via the webpage, I have left the links to these sites active.....Ed.

[Working the sats QRP](#) You don't have multiple beams antennas or 100 W??? You don't need it anyway! Some audio wav files as well.

[RS-12 description](#)

[Portable](#) satellite tracking. On the HP200LX palmtop computer!

[AMSAT-NA](#) **A MUST !!** A lot of good info on sats.. plus membership information.

[Mailing lists](#) A few of them.. Real handy when you want the latest news or ("gulp") HELP!

[K1ELA](#) A lot of good links.

[ON1CAU web site](#) A lot of stuff!

[AMSAT-UK](#)

[ARRL](#) A large site, a lot of information

[SpaceLink](#) A NASA site.

[Manfred Bester W6/DL5KR](#) Pass predictions from a choice of satellites.

[SAREX](#)

[The Amateur Satellite Observers of Southeast Virginia](#) A Good page for visual observations.

[MIR information](#) A very good site.

[WinTrak](#)

[STSPLUS](#) An **EXCELLENT** tracking program!

[Satellite Tracking resources](#) Loaded with information.

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 Tools, Computer Accessories, Test Equipment,
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 Professional and the Amateur
 Call in and see Jack at 345 Keira St., Wollongong

** See at his store
 or phone Jack
 for March
 Member Specials*

The Mother's Day Raffle For Fathers!

Mum and the girls get a big TV for their favourite programs and DVD's

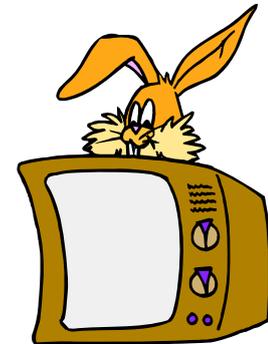
And Dad and the boys get a big TV for the football and the car races!



Ticket Sales Starting 14th February

Drawn Tuesday, May 9th Meeting

Just in time for Mothers Day!



\$2.00 each or 3 for \$5.00

Our major fund raiser this year will be "The Mother's Day Raffle For Fathers!" Total Concepts Projects, see the December issue for details of TCP, has donated a 30inch LCD Television and Sony DVD player to the IARS to raffle.

Thanks must go to Steve VK2TSB and Tracey Benko for organising the printing of the raffle tickets. The Club has ordered 100 books of 21 tickets, we hope to raise \$35.00 per book of tickets, but we can have more printed if required. Your chances of winning are 1 in 2100 – good odds!

Please see the fundraising committee, Geoff VK2HIC, Jack VK2VGD, or Peter Reid VK2HPR for a book of tickets or books, to sell to family, friends and workmates. Every ticket sold goes to our hobby to keep it running in 2006, as it is not a cheap hobby to maintain with repeater licencing, maintenance etc.

All books must be returned to the Club by the May meeting for the draw.

Port Macquarie Field Days

QUEEN'S BIRTHDAY WEEKEND 10 & 11th JUNE 2006

HOSTED BY THE OXLEY REGION A.R.C.Inc.

HELD AT SEA SCOUT HALL, BULLER STREET, PORT MACQUARIE

DISPOSALS FOX HUNTS DEMONSTRATIONS HOME BREW DISPLAYS

CONTACT CLUB SEC. PO BOX 712 PORT MACQUARIE 2444

Or Bill Sinclair On (02) 65839302

26th March 2006 Cataract Dam Picnic

A picnic has been organised for members at Cataract Dam on Sunday, 26th March 2006, from about 10.30 am.



We have invited Fishers Ghost Club to join us, and tables under shelter will be reserved for those attending.

BBQ facilities, stainless steel and very clean, are available at the site, as well as boiling water for a cuppa.

We have asked FG Club is members could use the facilities of their radio shack at the site, their aerial system alone is worth the visit.

Join in for a hamfest and a rag chew.

See you there.....

Gosford Field Day 2006

Another Gosford Field Day is over, with many reporting good bargains purchased.

The weather was warm and the attendance was good, with something to interest all there. For the first time, Crafty Ladies, was on the top floor of the main building.

Thanks to CCARC for organising the day.





From the Secretary's Desk

When John Lawer, our treasurer, gives a financial report to you our members, he is very lucky to be able to say we have a credit balance. This your Treasurer, guards like a bulldog with puppies – he says it's his Scottish background, I believe it is definitely in our Clubs best interest!

At the February Committee meeting, I asked him how much it costs to keep our Club running each year, especially our repeater network. These were the figures he gave me, for 2005:

Repeater Maintenance	\$34.65
Repeater Site Fees	\$742.84
Repeater Licence Renewals	<u>\$289.00</u>
	<u>\$1066.49 per year.</u>

But really how accurate is this? To maintain 5 repeater systems and sites, introduce the Gosford Link, Echolink and the IRLP running costs, these are not included. These services are provided to the members, by the members of our Club for nothing.

At the February Committee meeting it was noted that John Bennett and Rob McKnight maintain our repeaters at minimal cost to the Club. Most of the parts used, and their petrol to get to the sites is gratis to the Club, and travelling to the repeater sites can be both time consuming and costly, to go up to Maddens Plains alone, is over a 100 km round trip and I know for a fact that John will often go up in the morning, collect the faulty equipment, repair it and then go back in the afternoon and refit it. The parts used are found, bought, "borrowed" and fitted, at no cost. Graeme Cashion maintains our site at Mt Boyne and once again, there has never been a charge for any work he has done.

Tony Stone has the IRLP setup at his house. He maintains the computer system that runs the IRLP, as well as constantly upgrading it, the software and the aerials, to provide a better service and running the service for all on his home broadband internet account, once again at no cost.

But, the time is coming when this will not be the case. Our equipment is getting on in age, like the rest of us, and will, in time, need a complete replacement. As the technology changes so does the requirements for the site equipment and ACMA regulations regarding this equipment, this we have already experienced with Mt Boyne. But we were once again lucky, in that members had and generously donated the necessary equipment to make it comply with the site regulations, our repeater committee, and helpers travelled to Mt Boyne, moved and then refitted and upgraded our equipment as required by Transgrid, at no cost to the Club at all.

All our aerial replacements and site work must be done according to the OH&S guidelines, and the site requirements – we have been fortunate, Norm Deitch could shimmy up the masts for us but he now lives in Tasmania – a trifle too far to travel. We are blessed that within the Club we have members who have the recognised qualifications to be able to work on our Club equipment legally within the framework that is set by the various government, insurance and regulatory statutes for this type of work.

Our Meeting place at the SES has also been gratis, but now this could change also.

These are also not the full costs, internet webpage hosting, domain name registrations each year, insurance, post box, telephone calls, printing and postage costs, are not factored into this total, some are donated but others have to be paid for.

If the situation changes, and more has to be paid for, how long will our funds last? Our Club membership subscriptions do not cover our operating expenses as it is now.....in the future what will we do?

Why do we need raffles etc??

Think about it.....

Maeva Bennett
VK2HUG
Secretary

Amateur Radio and BLUEsat

The BLUEsat groundstation is equipped with a Yaesu FT-847 satellite transceiver, which is capable of transmitting and receiving on the popular amateur bands. The groundstation has two Terminal Node Controllers (TNCs) for packet communications, a PacComm Sprint II, capable of 9.6 to 38.4 kbaud, and a Kantronics KPC-9612 which operates at 9600 and 1200 baud. Therefore, the groundstation is able to work traditional voice amateur stations and repeaters, terrestrial packet networks, and communicate with a multitude of analog and digital amateur satellites.

The BLUEsat antenna array on top of the Electrical Engineering building has a two cross-yagi antennas, each roughly 5m long, for use on the 2m and 70cm bands respectively. The array also includes a homemade 2.4 GHz dish. The array is mounted on an azimuth-elevation rotator, for the purpose of following LEO satellites as they streak across the sky. The rotator is controlled by software running on the groundstation PC, which also adjusts the uplink and downlink frequencies of the transceiver to compensate for doppler shift.

Amateur packet communication is the primary mission of BLUEsat, and uses the ubiquitous AX.25 protocol. You will be able to work BLUEsat using a Kantronics KPC-9612 or similar 9600 baud TNC. BLUEsat uses the [J-mode](#) configuration like most modern amateur satellites. The AMSAT [Satellite Status](#) web page lists orbiting amateur satellites, their operational status and frequencies.

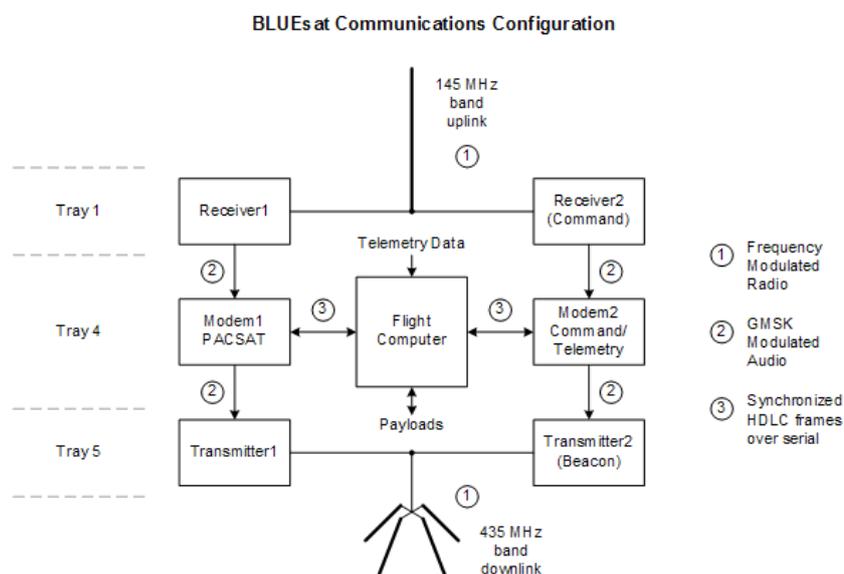
The callsign of the BLUEsat satellite itself has yet to be assigned, but the groundstation uses the callsign **VK2UNS**. This is a club station license, so amateur licencees using the groundstation will assume this callsign.

BLUEsat provides two communications channels which can be multiplexed over its pair of receivers and transmitters. The basic networking protocol is the AX.25 protocol, which is an amateur radio adaptation of the ITU-T X.25 protocol. AX.25 allows point-to-point (a single transmitting groundstation to the satellite) and point-to-multipoint (the satellite broadcasts to several listening groundstations) sessions. AX.25 is used in amateur packet radio networks, like long-range wireless networks, and supports the requirements for amateur satellite communication. It has error detection capabilities and is able to recover from some types of errors. The AX.25 protocol represents the Transport layer in the OSI networking model, and are conveyed in HDLC frames (the Link layer). HDLC frames -- streams of bits -- are sent over the radio links (the Physical layer), which use GMSK (Gaussian Minimum Shift Keying) over the 145 MHz (uplink) and 435 MHz (downlink) bands.

On top of the AX.25, the satellite provides an implementation of the PACSAT suite, which comprises the higher levels of the OSI networking model, and provides functionality similar to an internet FTP server. This is the benefit to amateur radio satellite users worldwide; BLUEsat will be able to receive files at one point over the globe, and transmit them to others elsewhere.

Satellite

On BLUEsat, the modems are fairly simple devices, and it is the [Flight Computer's](#) (FC's) responsibility to assemble/disassemble PACSAT packets, AX.25 frames and HDLC frames:





Transmitters

BLUESat carries a pair of [Hamtronics](#) TA451 UHF FM Transmitters, modified to function in LEO. Their function is to perform:

- Modulation,
- Frequency Multiplexing, and
- Amplification

The transmitters are capable of operating from 9600 bps (bits per second) to 56000bps; 9600 bps is BLUESat's operational bitrate. Each transmitter transmits on a different frequency in the 435 MHz band.



Receivers

BLUESat also carries a pair of Hamtronics R144 VHF FM Receivers, similarly modified to function in LEO. Their function is to perform:

- Amplification,
- Selection and Filtering,
- Demodulation, and
- Frequency Conversion

The receivers operate at 9600 bps only. Each is tuned to a different frequency in the 145 MHz band.

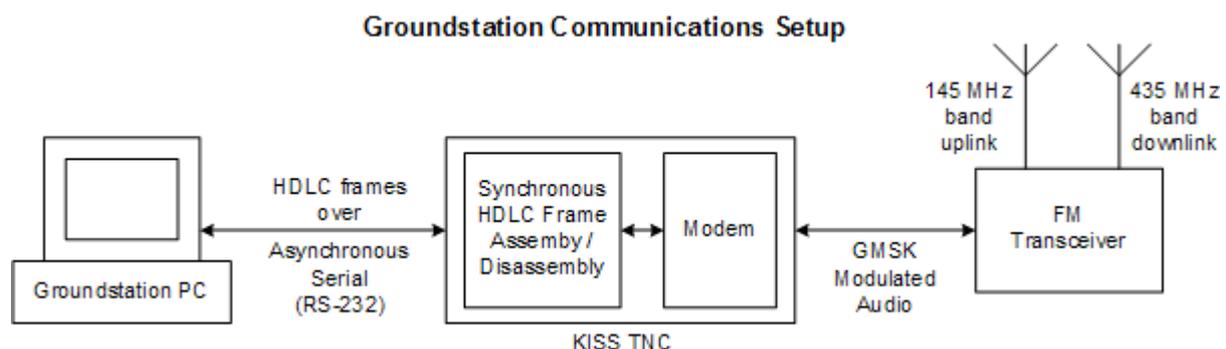
Groundstation

Back on earth, the groundstation requires equipment to communicate with the satellite. This is composed of:

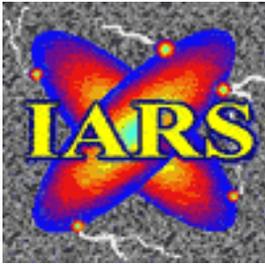
- A PC running the relevant software,
- A TNC (Terminal Node Controller -- in KISS mode it is not much more than a modem),
- A powerful Yaesu FT-847 satellite transceiver (transmitter/receiver), and
- A pair of cross-yagi directional antennas mounted on the roof of the Electrical Engineering building. These are mounted 6 metres above the roof, on an azimuth-elevation rotator which is controlled by the PC.

When tracking, the tracking software on the PC regularly adjusts the attitude of the antennas to point them at the satellite being tracked, as it moves across the sky. It also adjusts the receive frequency of the transceiver to compensate for Doppler shift from the fast-moving satellite.

The data communications setup of the groundstation is outlined in the diagram below:



To hear more about BLUESat, come to the March Meeting as our guest speaker will be Darren Siu VK2TUP



ILLAWARRA AMATEUR RADIO SOCIETY (INC)

Minutes of 14th February 2006 Club Meeting

Attendance: As per Attendance Book

Apologies: VK2XIC
VK2TTH
VK2FE

Visitors: Neil J
Cameron
John Bateman

Meeting opened by President Tony at 7.40 pm

Minutes Read from Febuary Meeting
Business Arising Nil

Repeater Report: Few problems

Power supply replaced on Knights Hill with spare, removed power supply repaired as spare
Maddens Plains PAM amp – fluctuations
UHF trans failed, repaired but not replaced on site as yet
Echolink, aerial not used, computer has failed and off air, hopefully back soon
Links to Saddleback OK, problem of background noise
IRLP node 6018 to be upgraded

General Business

There was no access to the SES building tonight. Locks had been changed because of a break-in over Christmas period and we were not give a key. Phone calls made and SES let us in.

Reminder of Wyong Field Day this Sunday and Crafty Ladies

Raffle ticket books for TV available for collection

Name badges ordered at February meeting available for collection

Collection of undistributed Certificates from December meeting

Ted Hawkins VK2TTH has 2 fish tanks for sale

Congratulations to Tracey and Jacob (11) for achieving their Foundation Licences. Jacob was present at the Meeting and congratulated personally by Pres Tony

The Club has purchased some Foundation Licence handbooks and they are for sale.

Guest speaker for March - Darren Sui from BLUEsat. Apologies given to Max Riley for delaying his talk until later in the year.

There were old copies of AR available for free

Meeting Closed at 8.10 pm

Rob McKnight gave a talk on his radio experiences whilst in the South Pacific.



GONNA BE A BEAR

In this life I'm a woman. In my next life, I'd like to come back as a bear. When you're a bear, you get to hibernate. You do nothing but sleep for six months. I could deal with that.

Before you hibernate, you're supposed to eat yourself stupid. I could deal with that too.

When you're a girl bear, you birth your children (who are the size of walnuts) while you're sleeping and wake to partially grown, cute, cuddly cubs. I could definitely deal with that.

If you're mama bear, everyone knows you mean business. You swat anyone who bothers your cubs. If your cubs get out of line, you swat them too. I could deal with that.

If you're a bear, your mate EXPECTS you to wake up growling. He EXPECTS that you will have hairy legs and excess body fat.

Yup, gonna be a bear!

For those of you who wonder why your Club Secretary and Editor loves bears!

It's a great reminder to us all how important it is to let everyone feel important

Subject: Two Choices

What would you do? You make the choice! Don't look for a punch line; there isn't one! Read it anyway. My question to all of you is: Would you have made the same choice?

At a fundraising dinner for a school that serves learning disabled children, the father of one of the students delivered a speech that would never be forgotten by all who attended. After extolling the school and its dedicated staff, he offered a question:

"When not interfered with by outside influences, everything nature does is done with perfection. Yet my son, Shay, cannot learn things as other children do. He cannot understand things as other children do. Where is the natural order of things in my son?"

The audience was stilled by the query.

The father continued. "I believe, that when a child like Shay, physically and mentally handicapped comes into the world, an opportunity to realize true human nature presents itself, and it comes, in the way other people treat that child." Then he told the following story:

Shay and his father had walked past a park where some boys Shay knew were playing baseball. Shay asked, "Do you think they'll let me play?" Shay's father knew that most of the boys would not want someone like Shay on their team, but the father also understood that if his son were allowed to play, it would give him a much-needed sense of belonging and some confidence to be accepted by others in spite of his handicaps.

Shay's father approached one of the boys on the field and asked if Shay could play, not expecting much. The boy looked around for guidance and said, "We're losing by six runs and the game is in the eighth inning. I guess he can be on our team and we'll try to put him in to bat in the ninth inning."

Shay struggled over to the team's bench put on a team shirt with a broad smile and his Father had a small tear in his eye and warmth in his heart. The boys saw the father's joy at his son being accepted. In the bottom of the eighth inning, Shay's team scored a few runs but was still behind by three. In the top of the ninth inning, Shay put on a glove and played in the right field. Even though no hits came his way, he was obviously ecstatic just to be in the game and on the field, grinning from ear to ear as his father waved to him from the stands. In the bottom of the ninth inning, Shay's team scored again. Now, with two outs and the bases loaded, the potential winning run was on base and Shay was scheduled to be next at bat.

At this juncture, do they let Shay bat and give away their chance to win the game? Surprisingly, Shay was given the bat. Everyone knew that a hit was all but impossible 'cause Shay didn't even know how to hold the bat properly, much less connect with the ball.

However, as Shay stepped up to the plate, the pitcher, recognizing the other team putting winning aside for this moment in Shay's life, moved in a few steps to lob the ball in softly so Shay could at least be able to make contact. The first pitch came and Shay swung clumsily and missed. The pitcher again took a few steps forward to toss the ball softly towards Shay. As the pitch came in, Shay swung at the ball and hit a slow ground ball right back to the pitcher.

The game would now be over, but the pitcher picked up the soft grounder and could have easily thrown the ball to the first baseman. Shay would have been out and that would have been the end of the game.

Instead, the pitcher threw the ball right over the head of the first baseman, out of reach of all team mates. Everyone from the stands and both teams started yelling, "Shay, run to first! Run to first!" Never in his life had Shay ever ran that far but made it to first base. He scampered down the baseline, wide-eyed and startled.

Everyone yelled, "Run to second, run to second!" Catching his breath, Shay awkwardly ran towards second, gleaming and struggling to make it to second base. By the time Shay rounded towards second base, the right fielder had the ball, the smallest guy on their team, who had a chance to be the hero for his team for the first time. He could have thrown the ball to the second-baseman for the tag, but he understood the pitcher's intentions and he too intentionally threw the ball high and far over the third-baseman's head. Shay ran toward third base deliriously as the runners ahead of him circled the bases toward home.

All were screaming, "Shay, Shay, Shay, all the Way Shay"

Shay reached third base, the opposing shortstop ran to help him and turned him in the direction of third base, and shouted, "Run to third! Shay, run to third" As Shay rounded third, the boys from both teams and those watching were on their feet were screaming, "Shay, run home! Shay ran to home, stepped on the plate, and was cheered as the hero who hit the "grand slam" and won the game for his team.

That day, said the father softly with tears now rolling down his face, the boys from both teams helped bring a piece of true love and humanity into this world.

Shay didn't make it to another summer and died that winter, having never forgotten being the hero and making his Father so happy and coming home and seeing his Mother tearfully embrace her little hero of the day!

AND, NOW A LITTLE FOOTNOTE TO THIS STORY: We all send thousands of jokes through the e-mail without a second thought, but when it comes to sending messages about life choices, people think twice about sharing. The crude, vulgar, and often obscene pass freely through cyberspace, but public discussion about decency is too often suppressed in our schools and workplaces.

If you're thinking about forwarding this message, chances are that you're probably sorting out the people on your address list that aren't the "appropriate" ones to receive this type of message. Well, the person who sent you this believes that we all can make a difference. We all have thousands of opportunities every single day to help realize the "natural order of things." So many seemingly trivial interactions between two people present us with a choice: Do we pass along a little spark of love and humanity or do we pass up that opportunity to brighten the day of those with us the least able, and leave the world a little bit colder in the process?

A wise man once said every society is judged by how it treats it's least fortunate amongst them.

The Funnies

When our lawn mower broken and wouldn't run, my wife kept hinting to me that I should get it fixed. But, somehow I always had something else to take care of first, the truck, the car, fishing, always something more important to me.

Finally she thought of a clever way to make her point. When I arrived home one day, I found her seated in the tall grass, busily snipping away with a tiny pair of sewing scissors. I watched silently for a short time and then went into the house.

I was gone only a few minutes.

When I came out again I handed her a toothbrush. "When you finish cutting the grass," I said, "you might as well sweep the path as well."

The doctors say I will walk again, but I will always have a limp.

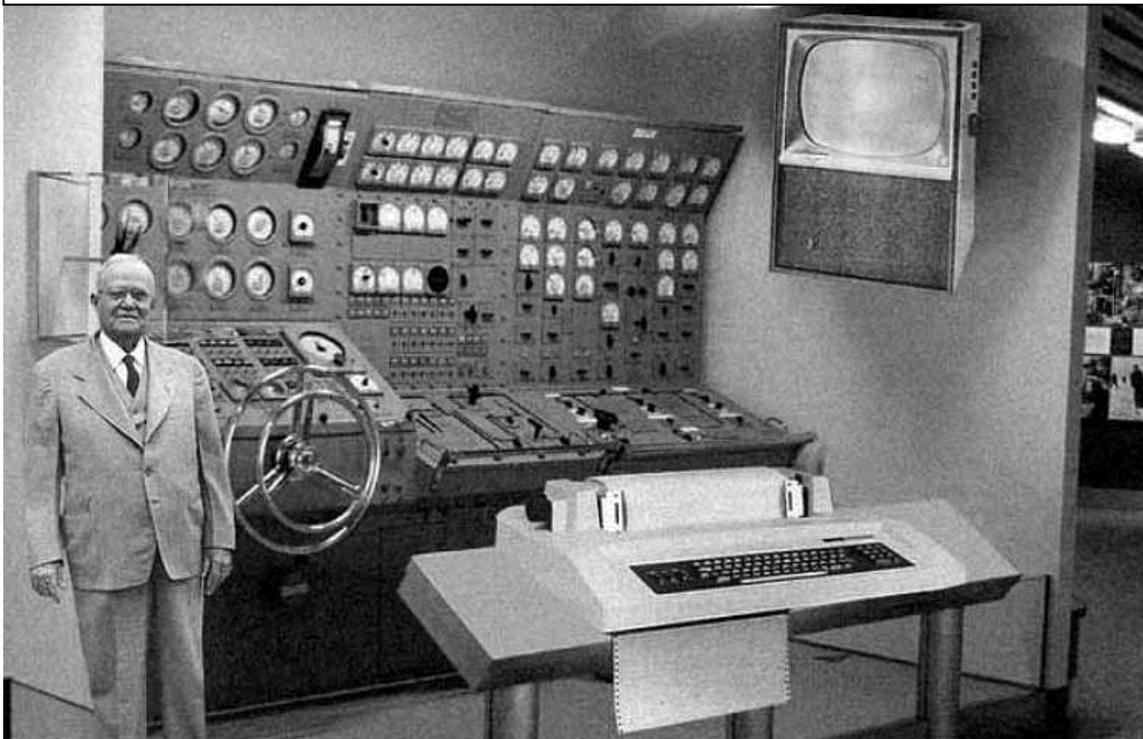
BEFORE COMPUTERS

Memory was something you lost with age
An application was for employment
A program was a TV show
A cursor used profanity
A keyboard was a piano
A web was a spider's home
A virus was the flu
A CD was a bank account
A hard drive was a long trip on the road
A mouse pad was where a mouse lived
And if you had a 3 1/2 inch floppy . . .
. . . you just hoped nobody ever found out!

Frog or horse?



Picture from 1954 Popular Mechanics Magazine.....read the caption and marvel.



Scientists from the RAND Corporation have created this model to illustrate how a "home computer" could look like in the year 2004. However the needed technology will not be economically feasible for the average home. Also the scientists readily admit that the computer will require not yet invented technology to actually work, but 30 years from now scientific progress is expected to solve these problems. With teletype interface and the Fortran language, the computer will be easy to use.

About the Airwaves.

- 1 If you have any items you would like broadcast on Tuesday nights, please contact Geoff Howell VK2HIC either by phone on 42725134 or by email at vk2hic@nsw.chariot.net.au, or Jack Decesco VK2XGD 4227 1620 or at jack@newtec.com.au. If it interests you it will interest others, it's for the enjoyment of our members and other listeners.

The first Club Broadcast for 2006 will be Tuesday, 7th February at 7.30 pm.

I know many listen to the broadcast, please participate in the call-backs – Geoff and Jack put a lot of hard work into doing this each week, let them know their effort is appreciated.

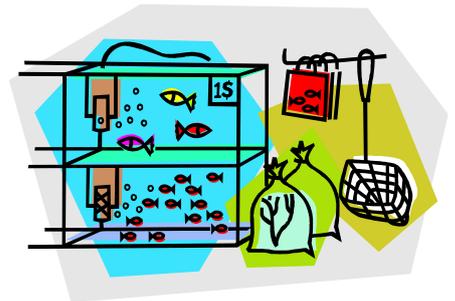
- 2 Over the past few months, many members have changed their email addresses, as emails sent by the secretary have comeback undeliverable. If you have changed your email address, could you please let the secretary know, so that our Member Registry is up to date.
- 3 Many thanks to Jack Desesco at Newtek, for his monthly specials for our members.
- 4 If you have any knowledge of competitions that involve amateur radio could you let the editor know for inclusion in the Club Calendar.
- 5 Congratulations to Tracey and Jacob Benko for passing their Foundation Licences, Jacob is only 11, so he is the youngest in our Club so far,

Buy, Swap or Sell

Ted Hawkins VK2TTH has 2 fish tanks for sale. **Price Reduction!**

- 1 1500x600x600 complete with goldfish, pebbles, rocks, filters etc complete with fish, pebbles, rocks, filters etc
- 2 600x300x250 complete with goldfish, pebbles, rocks, filters etc

Both in fair to good condition, \$100.00 ono. Contact Ted on 4257 2136



March 2006

<u>Sunday</u>	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>	<u>Saturday</u>
			1	2	3	4
5	6	7	8	9	10	11
12	13	14 Meeting	15	16	17	18
19	20	21	22 IARS Committee Meeting	23	24	25
26 Picnic At Cataract Dam	27	28	29	30	31	