

Newsletter of the West Rand Amateur Radio Club.

MARCH/MAART 1998.



Nuusbrief van die WesRand Amateur Radio Klub.



Forthcoming National Events:

APRIL '98.

5th Hamnet Simulated emergency contest 40M.

9th SARL 80M QSO Party.

25th Marconi day.

MAY '98.

1/2/3: SARL AGM/Convention.

4/10: ITU Africa Telecom'98.

10 : SARL 10M QSO Party.

16 : World Telecommunication Day.

21 : Radio Amateur's Exam.

30/31: CQ WPX CW Contest.

The editor is still busy developing the promised website. It takes a long time.

WATCH THIS SPACE.

EDITOR.

BULLETINS:-

Sundays @ 11h30 SAST

145.625 FM
7.066 LSB
10.135 USB

FROM UNDER THE CHAIRMAN'S TABLE.

Membership of a Club or a League, or in fact anything, is not just about paying your subs, or getting the newsletter. **Its about really belonging.** Sure you paid your subs, but did you give some friendship, some encouragement, some advice! Just as important did you get some of the these in return for your fee?

Really belonging to an organization makes it yours. Please forgive us any past wrong doings and make the West Rand Club yours.

Wal.

Visit the SARL Website at:

WWW.SARL.Org.Za

BIRTHDAY LIST: APRIL 1998.

2 - Sarel ZS6APO
5 - Bill ZS6ZC & Dorothy's Anniversary
10 - Adolf (Grandson of Hennic ZS6BSF)
11 - Rex ZU1REX
13 - Elsabe (XYL of Will ZR6WX)
13 - Amber (XYL of George ZS6KL)
17 - John ZS6JON
18 - Danic ZS6DAN
20 - Paul ZR6AEG (Son of Peter ZS6ZM)
23 - Kim (Daughter of Bob ZS6RZ)
24 - Stan ZS6BLC
24 - Veronica (Daughter of Gus ZS6AXQ)
24 - Michael ZS6-1534
26 - Gus ZS6AXQ
28 - Oom Jan ZS6BAA
30 - Peter ZS6ZM



THE FASCINATING SUBJECT OF AMATEUR ASTRONOMY.

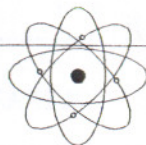
Twinkle, twinkle little star,
How I wonder what you are.

It's easy and fun and CHEAP to find out! Unlike becoming an amateur radio operator, you become an amateur astronomer, instantly at no cost, the moment you cast your eyes towards the sky and identify your first star. I'm not exaggerating. Send me a self-addressed stamped envelope and I will give you (free) twelve simple star charts that will allow you to identify the constellations.

You may continue observing the sky with the naked eye for the rest of your life and remain a genuine amateur astronomer. Usually, though, if the bug bites, you will move on to more "magnified" things. Whereas the unaided eye will give you the sky navigation skills you need to find planets, stars, star clusters and the many objects that make up the Cosmos, you will, no doubt, want to see more and More and MORE. The unaided eye can see objects to magnitude 3 or so from a city and to magnitude 6 from a perfectly dark site with no moon and clear, still air. For every star at magnitude 6 (the higher the magnitude number, the lower the brightness) or brighter you can see with the naked eye, there are 50 million dimmer stars in our galaxy, the Milky Way galaxy. The Milky Way galaxy is just one of billions of galaxies in the known universe.

The next step is to use binoculars to collect more light than the eye, which has a maximum aperture of approximately 7mm. Any binoculars will improve your ability to see dimmer objects, but the optimum instrument will be one that has an exit pupil of the same diameter as your pupil in the prevailing light conditions with the largest possible aperture. One can calculate the exit pupil diameter by dividing the aperture of the instrument by the magnification. For example a pair of 10 X 50 binoculars has an aperture of 50mm and a magnification of 10 times. Fifty divided by ten gives an exit pupil of 5mm, probably optimum for the suburbs of a city. Seven times 50 binocular would be best for dark sites in the country (7mm exit pupil).

The area of the aperture (front lens) is directly proportionate to the amount of light ultimately presented to the eye. This means that the square of the diameter is proportional to the detail one can see with a given telescope. Binoculars with 50mm (2 inch) objectives will see light and detail in the following ration to 4 inch and 8 inch telescopes:



$$2^2 : 4^2 : 8^2 \text{ or } 4 : 16 : 64$$

Basically, you will see more detail on the bright planets and more dimmer stars in globular and open clusters the larger your instrument's aperture. Small binoculars have 25mm objective lenses (aperture) and the largest telescope, the Keck, at 13 000 feet on a Hawaian peak, has a 10 metre objective mirror or 10 000 millimeters. Astronomy can be enjoyed with either of these instruments!

Why do we want to see these twinkling little stars? For the same reason that mankind has explored his surroundings in every possible way since time began. From electrons, radio waves, microbes and beetles to mountains, seas, continents, planets and stars. Astronomy, when it catches your interest, will have you in awe. The distances and masses, the energy being expended and the time scale of the visible cosmos place the earth in perspective, a small speck of a planet circling a small star halfway to the edge of an average galaxy among billions of other galaxies, larger and smaller, in a universe so large that its edge is pushed further back with every improvement in the astronomer's ability to reach deeper into space. Perhaps it puts one's own importance into perspective, eternity becomes palpable, infinity not so vague and for the religious, God's handiwork further revealed.

The next article will discuss the various studies that astronomers carry out in their 120 million dollar observatories and hundred metre and more diameter radio telescopes, not to mention the Billion dollar Hubble space telescope and the largely unsung satellites carrying out astronomical research. All this and more about how you can enjoy amateur astronomy by building your own telescope.

From Editor: Keith's telephone number is on the last page under committee details - Keith ZS6AGF.



AR K.

Well well a whole month has flown by since the last article on my most favorite hobby horse. I have not had much time to practice what I preach but the sheer love of it lets me hang in there!

For the skeptical I have an old saying: "Never scorn the old because that was the foundation of the new and no man can change that".

The more I listen to CW the more I become aware that all the talk of rigid procedures is not always true. There is an unwritten "code" of conduct and behavior and it is not rigid. Newcomers are often cold at the thought of all the protocol. Forget it and do plain English if you are at a loss. It will be accepted gracefully!

TIP FOR BEGINNERS:

Learn the sounds of words not letters. Start with small two and three letter words. Bob Lanning (W6OPO).

This month I want to give you some of the International abbreviations, which you may or may not use. The choice in CW is up to you:

abt	-	about	b4	-	before
ads	-	adress	bcnu	-	be seeing you
agn	-	again	bd	-	bad
ani	-	any	bk	-	break
ans	-	answer	bth	-	both
ant	-	antenna	buro	-	bureau

Happy keying and best 73 de Theuns.



For the hungry.

ONION BREAD.

1 (500g) Packet self raising flour.
1 Packet onion soup.
500 ml Buttermilk.

Mix and pour into greased baking Pan. Bake for 1 hour at 180° C.

MIELIE BREAD.

1 (500g) Packet self raising flour.
5 ml Salt.
500 ml Buttermilk.
410 g Sweet corn kernels.
10 ml sugar.

Mix and pour into greased pan, bake for 1 hour at 180° C.

Articles for publication and items for Swop Shoppe to Editor.
Email: Theuns@Mweb.Co.Za - Tel: 011-475-6491.

REGULAR HAPPENINGS:

- 1) Beginners classes in preparation for the exam at the Clubhouse on Wednesday @ 19h00.
- 2) Club meeting every 2nd Monday evening of the month @ 19h00 SAST at the Clubhouse.
- 3) Morse classes every Tuesday @ 19h00 on 145.625mhz - ZS6ENK.
- 4) 1st Monday of the month Chris Botham will run a technical and construction workshop at the Clubhouse from 19h00.

SUPPORT YOUR CLUB!

FROM THE WEATHERMAN ON 52-MHZ.

Continued from last month.

SEEING THE PICTURES:

When radio amateurs first began building their own APT stations, the typical display was a drum facsimile machine. Dedicated CRT systems provided another low-cost approach and good imagery, but demanded tedious close-up photography of the CRT and several photo-processing steps in order to get a hard copy. Dedicated frame-store or scan converters became available to amateurs in the early 1980s. These units made it possible, for the first time, to receive an image, view it on a computer monitor and store the image information in solid-state memory chips. The scan converter described by Matjaz Vidmar, YU3UMV, in VHF Communications became quite popular in Europe, with a few units appearing in the US.

The development of inexpensive, high-resolution graphics cards for personal computers has, however, completely changed the approach to weather-satellite image display. For a few hundred dollars, you can now purchase an interface card that plugs into your IBM-compatible personal computer and displays excellent satellite imagery. For even fewer dollars, you can build an excellent APT display using the hardware described here, and a terrific shareware program called JVFX.

JVFX:

JVFX is a multifunction image-communication package written by Eberhard Backeshoff, DK8JV. JVFX allows operation in amateur SSTV and radio facsimile modes in addition to APT. It's available free of charge; the author simply requests a contribution if you find it useful. JVFX requires an IBM-compatible PC with a VGA or SVGA graphics card. For best performance, an 80386 or better microprocessor is recommended; DOS 3.0 or later, is required. JVFX will not operate in the Windows or OS/2 environment.

JVFX is popular in Europe for displaying weather-satellite imagery, so - after reading descriptions of the software in British publications - I decided to give it a try. The available APT adapters all seemed to be more complex than they needed to be and used ICs not readily available to me. So, I built my own interface using parts more readily available here in the US. The unit described here works very well in converting APT imagery into a format that JVFX can use.

This APT interface is more complicated than the typical one-IC design used for SSTV and FAX, but it's still easy to build, especially when compared to a frame-store unit or an analog system that might otherwise be used for APT display.

Courtesy of Chris - ZR6AVA.- To be continued.

I am not ruining his CW arm
I happen to know he's a
dedicated phone man!



7.
WHEELIN' & DEALIN'
SALESMAN
COMPETITION



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Kroton Street

WELTEVREDENPARK Ext. 12.

Tel: 475-2368

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