HAMS Haywire News
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www.marc.org.za
PO Box 1076, Hilton, 3245

MIDLANDS AMATEUR RADIO CLUB

AFFILIATED TO THE SARL & IN ASSOCIATION WITH THE NATAL CARBINEERS

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The Chairman's Report

At the last club meeting which was well attended, we had a very interesting presentation by Shaun ZR5S on D-STAR, a digital voice and data radio system developed by the Japanese Amateur Radio League. This system is widely used in a number of countries. What was of interest to me, was the differing views on what ham radio is or should be and where its is headed.

So lets first look at what is the definition of Amateur Radio, and after looking at a number of sources it is defined by most as "the use of two way radio to communication to make contact with other amateurs around the world". The word here "amateur" means not for gain, to distinguish us from the professionals who communicate for profit. I have conducted a small investigation into the past history of amateur radio, and it soon becomes apparent that Hams have often in the past been the experimenters and the developers of a number of radio systems/ modes call them what you will. SSB is a good example, and was a major break through. Although the system was patented in the USA on December 1, 1915 by John Carson, it was not until after the world war II that amateurs began to undertake serious experimentation. The US Strategic Air Command established SSB as the radio standard for its aircraft in 1957. It has become a de facto standard for long-distance voice radio transmissions since then. The next major leap forward was FM modulation which again took a long time in its development, it was first described in a paper published in 1935. The BBC began FM broad casting in 1955 and it took a number of years to become a world wide standard.

There are now we have a number of digital radio systems available and D-STAR would appear to be the most widely accepted system by hams around the world. Such systems are used in GSM cell phone system around the world, in the USA analog systems were the norm until recent times. We need to look forward and not be held back by only looking back at the past.

So what is next, work is being done on spread spectrum technology by the SARL and test kits are being made available in the near future. This technology does offer some interesting possibilities and is used in GPS, WiFi systems, and many cordless phone operating on the 900MHz, 2.4 GHz and 5.8 GHz bands and similar applications such as automatic meter reading systems. I am sure in the next decade there will be many more innovations. The radio spectrum is becoming ever more crowded and systems that will require less band width will be required. A good example is the current amateur 2m repeater band with, where we in the midlands have run out of frequencies for the current repeaters with 25 kHz spacing and even with 12.5kHz spacing there are problems.

As much as we would like to stay as we are, we are faced with an ever changing world and we will have to "adapt or die" as the saying goes, as for me, I am all for adapting, otherwise ham radio will become irrelevant especially to the younger generation who have used cell phones since they we able to talk, CW is hardly of interest to these minds. At the last committee meeting after careful consideration it was decided that the club fees for the coming year will be raised by R10 so will be R150 for those who receive the HHN by email and R200 for those who prefer snail mail and R55 for students. I look forward to seeing you at our next meeting on the 17 July.

Mike Z5BGV

Diary of Events

17 July MARC General Meeting
18 July Intechnet at 19h30 on VHF/UHV/Microwave matters
23/24 July Preparation and launch of the HABEX balloon project
21 August MARC General Meeting
31 August Closing date for submission of proposals for the 211 SARL Contest Manual
28 September MARC Annual General Meeting
30 September Closing date for phase 1 of the innovation project

The M.A.R.C. Infrastructure

Voice Repeaters (FM) *Visit www.marc.org.za/pages/freq.htm for updates of this list*

VHF	Tx	Rx	Equipment
Hilton	145.6625MHz CTSS 88.5	145.0625 MHz	SCR200 20W, Diamond X-200 rx and tx
Estcourt	145.700 MHz	145.100 MHz	Emcom SA256 25W, Diamond X-200 rx
Franklin	145.725 MHz	145.125 MHz	GE MVP 10W
Worlds View	145.750 MHz CTSS 88.5	145.150 MHz	Emcom SA256 25W, Diamond X-200 rx and tx
Greytown	145.775 MHz	145.175 MHz	Home Brew @ 20w, Diamond X-200 rx and tx
Underberg	145.7875MHz CTSS 88.5	145.1875MHz	Q8000 30W
Windy Hill	145.700MHz	145.100MHz	Hamnet repeater.
UHF			
Mt Gilboa	439.225 MHz	431.625 MHz	Vertex Standard VXR-9000, Diamond X-200 rx and tx
Zwartberg	438.775 MHz CTSS 110.9	431 .175 MHz	GE MVP 15W

APRS
The national APRS frequency is 144.800 MHZ (Tx & Rx). The I-Gate is at Hilton (ZR5S). Fixed stations should beacon at approximately 30min intervals with a path of WIDE5-5. Mobile stations should beacon at approximately 1min intervals with a path of "WIDE1-1, WIDE5-5". We have aprs digi's throughout KZN. A PBBS (mailbox) is on ZS0PMB-1 for emergency use. A KA-NODE is on ZS0PMB-7

Packet Radio
No packet radio frequency. However, limited packet radio facilities are available on 144.800MHz

ECHO-LINK "voip"
Our node number is 244279 Call Sign ZS5PMB. This Echo-link facility is available on the Midlands linked Repeater network.

E-QSO "voip"
We are in the "101ENGLISH" virtual room, on the "repeater.dns2go.com" server. This is linked to RF at Hilton on 433.000 MHz simplex.

BEACONS
Greytown 50.321 MHz (Tx) ZS5SIX FSK (off air)

WEB SITES
MARC'S very own website www.marc.org.za
SARL's website www.sarl.org.za
HAMNET website www.hamnetkzn.org.za

Regular Events

The KwaZulu Natal Net (Early Birds):
Starts at 06h00 on 7.055 MHz. in winter and 3.650Mhz in summer and continues until 07h40. Colin ZS5CF hosts the net from 06h00 & Gary Potgieter (ZS5NK)-takes over later on.

MARC Sunday Morning Net:
Times: 07h45. Club bulletin is presented at 08h0.
Frequencies: VHF: 145.750MHz, 145.6625MHz, 145.775MHz, 145.725MHz, 145.7875MHz, 145.700MHz
UHF: 439.225MHz

Hamnet Bulletins: Sundays at 07h00 on 145.625MHz and 3.670MHz
Wednesdays at 19h30 on 145.625MHz and 3.670MHz

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D-STAR - will the average Joe Ham cope with new technology in SA?

There has been a lot of correspondence about D-Star in our in-boxes in the last few weeks. There certainly is a lot of interest in this digital mode. Are we up to it? In my opinion, we need something new in our hobby to regenerate interest since “going asleep”. Attending RTAs certainly perks up our interest with new technologies - luckily there are always hams around who experiment and stay abreast of technology. We certainly need them to tag us along, and stop us from falling into the stagnant hole of complacency and boredom.

So what is D-STAR? With the help of various internet sources, including Wikipedia, here is a basic description:

D-STAR stands for ***Digital Smart Technologies for Amateur Radio***. It is a digital voice and data protocol specification developed as the result of research by the Japan Amateur Radio League to investigate digital technologies for amateur radio. D-Star is one of the first on-air and packet-based standards to be widely deployed and sold by a major radio manufacturer that is designed specifically for amateur service use.

Other non-digital voice modes such as amplitude modulation, frequency modulation, and single sideband have been widely used since the first half of the twentieth century. By comparison, digital D-STAR signals offer clearer signals and use less bandwidth than their non-digital counterparts. As long as the signal strength is above a minimum threshold, and no multi-path is occurring, the quality of the data received is better than an analog signal at the same strength.

D-Star compatible radios are available on VHF, UHF, and microwave amateur radio bands. In addition to the over-the-air protocol, D-Star also provides specifications for network connectivity, enabling D-Star radios to be connected to the Internet or other networks and provisions for routing data streams of voice or packet data via amateur radio call-signs.

The first manufacturer to offer D-Star compatible radios is Icom. At present, no other amateur radio equipment manufacturer has chosen to include D-Star technology in their radios. Kenwood re-brands an Icom radio and distributes it in Japan only.

How was it developed? In 1999 an investigation was put into finding a new way of bringing digital technology to amateur radio. The process was funded by the Japanese government and administered by the Japan Amateur Radio League. Several years later, during 2001, D-Star was published as the result of the research and Icom entered the construction of the new digital technology by offering the hardware necessary to create this technology.

In September 2003 Icom named Matt Yellen, KB7TSE (now K7DN), to lead its US D-Star development program. Starting in April 2004 Icom began releasing new "D-Star optional" hardware. The first to be released commercially was a 2-metre mobile unit designated IC-2200H. Icom followed up with 2 metre and 440Mhz handheld transceivers the next year. However, the yet to be released UT-118 add-on card was required for these radios to operate in D-Star mode. Eventually Icom began selling the card once installed into the radios it provided D-Star connectivity for each of the transceivers.

JARL released significant changes to the existing D-Star standard in late 2004. Icom, aware that the changes were coming, had placed the release of their hardware on hold for a period of as much as a year while they awaited the changes. As soon as the changes were out, Icom announced they would be able to finish up and release equipment.

The Icom ID-1 1.2 GHz mobile radio was released in late 2004. This was to have been the first D-Star radio, providing full Digital Data (DD) functionality. The first D-Star over satellite QSO occurred between Michael, N3UC, FM-18 in Haymarket, Virginia and Robin, AA4RC, EM-73 in Atlanta, Georgia while working AMSAT's AO-27 microsatellite in 2007. The two operators used a variety of Icom gear to make the contact and experienced slight difficulty with doppler shift during the QSO.

As of late 2009 there are around 10,800 D-Star users talking through D-Star repeaters which have connectivity to the Internet via the G2 Gateway. There are around 550 G2 enabled repeaters now active. Note, these

numbers do not include the scores of users with D-Star capabilities but not within range of a repeater, or working through D-Star repeaters that do not have Internet connectivity.

The first D-Star capable microsatellite is scheduled for launch during October 2010. OUFTI-1 is a CubeSat and is built by Belgian students at the University of Liège and I.S.I.L (Haute École de la Province de Liège). The name is an acronym for Orbital Utility For Telecommunication Innovation. The goal of the project is to develop experience in the different aspects of satellite design and operation. The satellite weighs just 1 kilogram and will utilize a UHF uplink and a VHF downlink.

Some technical details: The system is capable of linking repeaters together locally and through the Internet utilizing call-signs for routing of traffic. Servers are linked via TCP/IP utilizing proprietary "gateway" software, available from Icom. This allows amateur radio operators to talk to any other amateur participating in a particular gateway "trust" environment. The current master gateway in the United States is operated by the K5TIT group in Texas, who were the first to install a D-Star repeater system in the U.S.

D-STAR transfers both voice and data via digital encoding over the 2 m (VHF), 70 cm (UHF), and 23 cm (1.2 GHz) amateur radio bands. There is also an interlinking radio system for creating links between systems in a local area on 10 GHz, which is valuable to allow emergency communications oriented networks to continue to link in the event of internet access failure or overload.

Within the D-Star Digital Voice protocol standards (DV), voice audio is encoded as a 3600 bit/s data stream using proprietary AMBE encoding, with 1200 bit/s FEC, leaving 1200 bit/s for an additional data "path" between radios utilizing DV mode. On air bit rates for DV mode are 4800 bit/s over the 2 m, 70 cm and 23 cm bands.

In addition to DV mode, a high speed Digital Data (DD) mode can be sent at 128 kbit/s only on the 23 cm band. A higher-rate proprietary data protocol, currently believed to be much like ATM, is used in the 10 GHz "link" radios for site-to-site links.

Radios providing DV data service within the low-speed voice protocol variant typically use an RS-232 or USB connection for low speed data (1200 bit/s), while the Icom ID-1 23 cm band radio offers a standard Ethernet connection for high speed (128 kbit/s) connections, to allow easy interfacing with computer equipment.

How are they linked? The radios run on a gateway control software. Each participating amateur station wanting to use repeaters/gateways attached to a particular trust server domain must "register" with a gateway as their "home" system, which also populates their information into the trust server a specialized central gateway system—which allows for lookups across a particular trust server domain. Only one "registration" per trust domain is required. Each amateur is set aside eight 10.x.x.x internal IP addresses for use with their callsign or radios, and various naming conventions are available to utilize these addresses if needed for specialized callsign routing. Most amateurs will need only a handful of these "registered" IP addresses, because the system maps these to callsigns, and the callsign can be entered into multiple radios.

The gateway machine controls two network interface controllers, the "external" one being on a real 10.x.x.x network behind a router. A router that can perform network address translation on a single public IP address (can be static or dynamic in Gateway 2.0 systems) to a full 10.x.x.x/8 network is required. From there, the Gateway has another NIC connected directly to the D-Star repeater controller via 10BaseT and the typical configuration is a 172.16.x.x (/24) pair of addresses between the gateway and the controller.

There are various add-on programs, like DPLUS, which add other features, like the ability to link systems directly, voice mail, ability to play/record audio to and from the repeaters *and for users to communicate from the internet to the radio users on the repeaters*.

Software development is ongoing, and the scope of D-STAR is vast. There are many existing open source compatible programs available on the internet.

Is this the end of home-brew? Not at all, in fact it is a revival of home-brew! A search on the internet reveals that there are a multitude of projects to turn analogue radios into D-STAR capable radios and repeaters. There are many designs out there, and with a soldering iron, some sweat and components, you can turn your old rigs into digital radios “from scratch” (note, the radios in question have to be able to process data at 9600 baud -

some have turned older rigs into D-STAR radios with additional 9600bps packet interfaces). There are numerous shops and sites which will sell completed pc boards, which you can hard wire into your rigs.

The easiest route is of course to buy radios off-the-shelf, as they will have nice display interfaces, and are plug-and-play. The radio prices are in line with existing packet capable radios, with vhf D-Star capable radios starting at R2.2k and dual band vhf/uhf radios are typically between R6k and R7k.

It is encouraging to see so many positive discussions on digital modes, and in particular D-Star, on the SARL forum, showing that many are moving forward with digital voice.

Some advantages of D-Star:

- It uses less bandwidth - more repeaters can be packed into available space - 3 digital channels per one analogue channel
- The audio quality is superior to that of analogue in weak signal conditions
- It allows simultaneous voice and data. Eg while talking, you can send a text file to the other party. It also allows simultaneous voice, aprs data and messaging per repeater - ie only 1 licence to pay, 1 tx frequency and less antennas - now clubs don't need a repeater for each of these modes.
- Tone guarding D-Star repeaters is unnecessary
- You can access any other D-Star registered repeaters world wide, and in fact any connected end user call signs
- Rogue operators will be easily identified - you cannot buy a D-Star repeater without registering it. Even the after-market kits have to be registered. Therefore it will be hard for a rogue operator to hide his identity - every time you key the mic of your D-Star repeater, the data header gets transmitted first, which includes your call sign, which will be displayed on the screens of all the radios who can hear your transmission. (Theoretically you don't have to give your call sign, as the radio identifies you already - food for thought?)

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Why did I become a radio amateur ?

By Marjoke ZS5V

The key word is probably 'frustration' to sit here with all the equipment you need and not being able, not allowed to, say a word because you don't have a license..

At one stage, many years ago, my dream was to become a radio officer on board of a ship. The training college, brows were raised we are talking 1967, would train - in retrospect I would never have had and do not have the technical abilities - but would never allow me on board of a ship in that profession - one girl amongst all those men....So Dad said no go (rightly so) and I became a radio operator at PCH/Scheveningenradio, now defunct.

There I met Joost- first as operator to ship then personally and yes...anyway he was already then a radio amateur and introduced me to the hobby. Spent quite a few hours in an attic room in Haarlem logging when he took part in cw contests! We got married - emigrated - had children and the hobby got a bit on the backburner.

Then Joost was allowed to work Micky Mouse (the Netherlands changed their policy) official name is Maritime Mobile - and got his South African c/s as well, with the help of Hill/ZS5HL. There was no reciprocal at that time, so he had to do it all over again, even do the 12 wds cw...for a senior radio officer!!! (I was there and it was funny)

And I'm sitting here, listening to Joost having a sked with a friend in Pretoria/ ZS6CS daily while at sea - not being able to say anything, just running up a heck of a phone account - please Henk tell Joost...

Then got a call from Hill : hello Mrs Joost, I will be starting a new course next week are you interested? and I took the plunge. Our eldest son, then 12, came along. Will never forget his embarrassment when Hill tried to

explain something and started with Pi - and I putting up my hand and asking sorry but what is Pi - there was dead silence amongst the others except from Marc who just said "MAMMA" and kicked my shin under the table.

Still do believe though that it's far better to just acknowledge if you don't know even if it does sound foolish to some people, than not say anything, pretend to be clever or more clever than you are, and get lost in trying to understand all those formulas, Hill explained nicely.

Both Marc and I got through well, I'm still proud of my B agg - any of you know what a Zener diode is, guess you do but for me when I wrote it was an uneducated guess. Never heard of anything like that, grateful for multiple choice (was the first time here).

So on to CW - was not going to be a ZR with all the restrictions at that time. With thanks again to Hill and also to Bill/ZS5KD for the patience and training -

My very first cw contact was with Joost/PA0LO/mm on the roads of Acapulco - it was fun....did my 200 cw qso's with the help of a few friends - my log book looked quite exotic but ..all legitimate.

Well main reason to become a radio amateur was to be able to keep in touch with Joost while he was at sea.

It worked - he knew what was going on here wherever he was, very important - the snail mail is not always that efficient, certainly not at that time.

Being able to contact and communicate is so important. That's one of my hobby horses I'm afraid. And then there is the story of Marc flying out to Kobe to join his Dad for a trip on board of the ship and getting lost .....Was I glad to have my license being able to contact Joost by radio on the ship and a Japanese radio friend, to locate the young man.

Ed: Marjoke did not mention that she did her first 200 cw qso's in 6 weeks, and that the worked stations included - PA0LO/mm - PA3CSX/mm - PA3ABK/mm - PA0ZBL 5H3RB - ZS6CS - TL8HZ - TL8VA - VK2AVA - KT0Y - K0EPK - VK2DDA - ZL1ATX - ON6UJ/mm. Quite a feat! Also, Marjoke and Joost had daily dx skeds around the globe (mainly SSB after the first 6 weeks of cw), and they can't recall missing one, except when they could not make it because of meetings etc! They certainly knew about propogation, and would organise skeds around the clock accordingly.

Marjoke, thank you very much for this interesting article! I'm looking forward to more interesting stories, and also accounts from other hams reading the HHN.

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Unusual and strange antennas

compiled from various web sources by ZS5ML

In my hunt for unusual antennas, I have come across some unusual antennas, and will list some of these here as described by other hams around the world:

N0EW: ".....In 2003 our club set up a 24-foot aluminum ladder setting over (the middle of) a 25-foot roll of chicken wire. We worked it on 40- and 80-meters as I recall.
Neighborhood fences can make very, very good ground planes. I've used several "primary elements" (such as a roll of chicken wire, and a load-lock) working off a fence (even one as small as one about 40-foot long). I also know a local amateur radio operator that uses his big neighborhood fence with his Butternut vertical, and he speaks very highly of it as a good quality RF ground.
Metal tape measures are fairly obvious choices for non-wire antennas. I keep two 100-foot metal tape measures in my ARES go pack (along with a few dog bone insulators and hose clamps). Not only can I make needed measurements, I always have a spare emergency HF antenna.
Experiment and have fun! "

K0BG: "Just about any metal object large enough for the frequency in use can be used as an antenna. I've used swing sets, tied together window screens, gutters, and even loaded up a friends Explorer. All with an Icom AH-4. "

W8KQE: "I wouldn't call the following a 'favorite' antenna by any means, but this did actually happen. Many moons ago in the 70's, when we were 15 or so and into CB, this zany "ill try anything once" dude on 11m named Bruce used his body as a radiating antenna (I wouldn't try this at home)! Aside from the apparent dangers of pumping 4 watts of RF directly into your body, the possibility of actually being heard by others on the frequency had great novelty and attention-getting value for Bruce. A few of us on the other side of town actually heard him on AM, and witnessed the signal strength vary as Bruce would sit down, and then stand up with his arms outstretched! This guy was 'the human Isotron'! LOL! "

N4LI: "My brother, in his much younger and sillier days (long before I was a ham), had a particular penchant for loading up things that really shouldn't be antennas.
Perhaps his best? His metal filing cabinet, next to his operating position. He tells me he worked Cuba on 80 meters, but found his face beginning to warm a little. A bad sign?
By the way... this really isn't good for your tuner, either. "

K0XU: "Many years ago I was trying out a HB tuner that I had just built. I ran a wire to the big I-beam that holds up the middle of the house down in the basement (that's where the shack was) the attachment to the beam was with a vise grip. I loaded the darn thing up on 40 meter phone and gave a call. A fellow 3-400 miles away came right back and we chatted a bit until he asked what kind of antenna I was running. I replied "a beam" he of course came back & asked "what kind of beam" and I relied "just a plain old I-beam down here in the basement". Funny but he didn't come back after that. Maybe his rig malfunctioned or something. "

KD5NCX: "One of the members of the Irving (Texas) Amateur Radio Club (AD5KE) uses a 108 year-old set of bed springs on HF with great success. He's not only made many US contacts with it, but even has some foreign 'bed spring contacts' to his credit. On the higher side (2 Meters), I saw an antenna made from a coat hanger and the cage from an oscillating fan. The owner claimed it was noticeably better than his HT's rubber duck. "

WA0ZZG: "Take two motor vehicles of about the same size. Place them nose to nose, or tail to tail. Feed the center with ladder line. Hope someone doesn't want to drive off. This was easier to do when cars had metal bumpers. "

KG4RUL: "I remember reading about a group of Hams that load up bridges for grins an giggles. "

K3BZ: "My favorite was the cage antenna. No, not wires forming a "cage" to improve bandwidth, this was an actual birdcage.... a huge old thing that had its own 4-legged stand. It was about 5 times the size of a regular canary cage (do people keep canaries anymore?) and it looked a little like a Chinese pagoda with those curved ends on the "roof". Loading the cage was a natural follow-on to trying out a light bulb as a dummy load. You're right... one has to take time out to play. I like the idea of a contest using strange antennas. "

K9ZF: "My favorite "strange" antenna, based on performance, would have to be my old rain gutters. They worked pretty well on 40, decent on 75, and were a good substitute for a dummy load on 160.
I've also loaded up chain link fences and clothes lines with some success. The clothes line actually worked pretty well on 6 meters. Made quite a few QSO's during an e'skip opening:-)"

KB7LYM: "I welded 4 stainless steel urinals together. Worked 10 - 14 meters. Signal was clean what can not be said for the urinals. The great part was that when after 8 hours of hard work and mature called, I did not have to go far. "

KI4GCX: "I think among the weird list of antennae I have used was a picnic table and a Step van that I worked out of when I was working for the county of Fairfax Va. on the list of tried and true antennas is the 2m fantenna made from an old 19" oscillating desk fan. Got alot of perks from the fantenna... i have a cable with an alligator clip on one end and a bnc connector on the other, that i recieved with an old elenco 3000s oscilloscope... my rule is if it's metal and i'm bored can it be an antenna ;)"

VE3KKU: "Once, when I was living in a ground floor apartment, and with no other antanna options, I loaded up a picture frame on my bedroom wall. I was able to work Argentina (ah, if only 10m would return soon). Odd, but I remembering my neighbors complaining about the "interference", which was me screaming into the mic of my HW-101 (the old form of compression) to make the exchange, but they didn't complain about the RFI.
I also seem to remember a recent article about a ham who loaded up hundreds of soda cans on the floor in his apartment. If I remember correctly, he called it a "beverage" antenna.... "

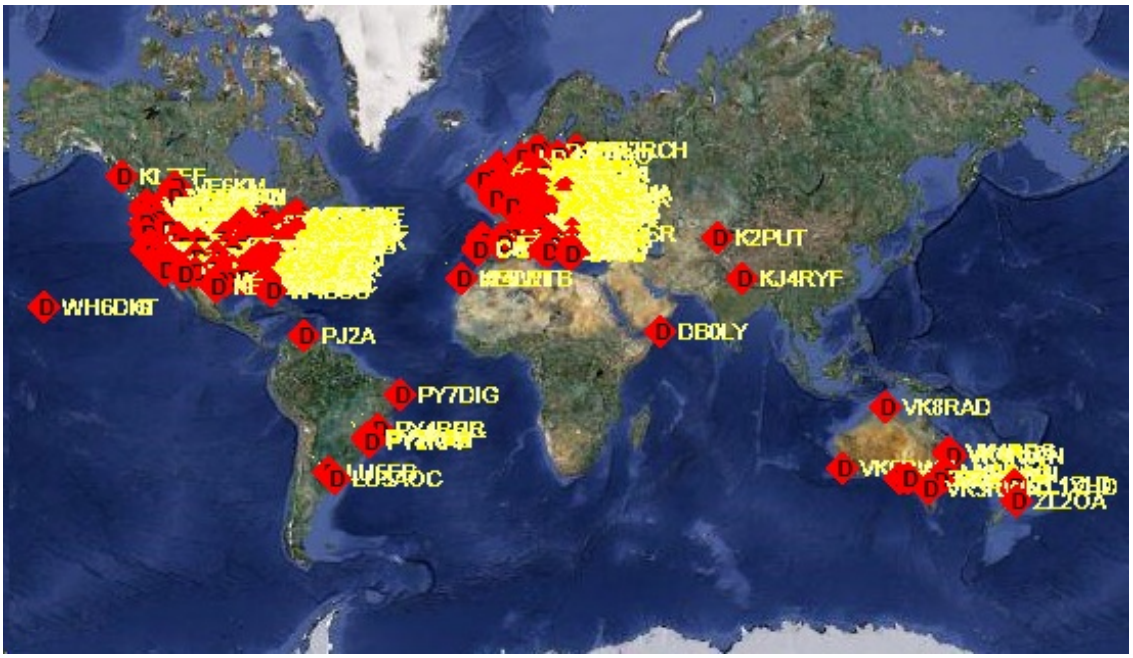
KC0THS: "Well , many years ago when I was a student at college in Pittsburg Pa. They would not let any of us hams put up antenna's I found that I could load the aluminum window frames that ran the lenght of the dorm. It worked quite well except when it rained, made quite a fireworks display with 200 watts on the windows. Oh , it also shut down TV reception anywhere in the dorm, had to operate late at night so I didn't disturb too many people especially the dorm supervisor. "

I'm sure many of you have played around with unusual antennas. Please send me you stories - I'm sure that our members will be interested in them.

Editor's Waffle

A much discussed topic this month was D-Star. At our last meeting Shaun led a discussion on D-Star, and showed a few videos. Encouragingly, from the emails and meeting, many, if not most, are in favour of something new, and many are quite excited by this "new" digital mode. As expected, some have their doubts, or are possibly against it. One question posed is why the other South African clubs have not embraced it. Well, mainly because of economic times - our clubs are not as strong financially than our European and American counterparts, most of whom have D-Star repeaters. As these repeaters are expensive, this is a huge stumbling block. Reading some of the D-Star forums, it is quite apparent that many subsidies were issued for D-Star repeaters, to get the clubs going. We have not had this, but are negotiating with ICOM - and time will tell whether we will get financial help as well. If you search the internet for D-Star repeaters, you will find hundreds scattered around the world, mainly based in the US, UK, Europe and Australasia. South America has a handful and Africa zero - see the map overleaf. And these are the registered repeaters only. Have a look at http://dstarusers.org/repeaters.php where I counted 323 D-Star repeaters in the US only. So they are out there and are being used.

Many of course also have a fear of new technology, as can be deduced by comments as "CW will be the saviour of Amateur Radio", a phrase which probably held a lot of truth more than half a century ago. But we are all entitled to our own opinions, just like the opinion held by some that Amateur Radio started to die because we shunned new technology, and lost the ability to attract new members. There is still a perception out there that we have to operate with old heavy radios and that we also have to communicate in CW - seriously - I have been asked this on more than one occasion when asked what the antennas on my vehicle are for. They were quite astounded and interested when I explained that 2 antennas were for APRS, a vehicle positioning system which did not rely on cell phone coverage, and that one of them works from anywhere in the world (the hf APRS). The perception of our hobby is somewhat similar I suppose to the game of Bowls, which carries the nickname of "Old man's marbles". It can actually be enjoyed by all age groups.



It is only of late that we have been able to attract new members again. How was this done? Well, probably by a lot of personal input by individuals, like Shaun ZR5S, who provided equipment for packet radio, APRS, linking repeaters etc etc. A comment was made at the meeting that new technology, like digital modes such as D-Star, is probably only suitable for young 30 year olds and younger. Well, my answer to that is if that is how you feel, then hold onto the old modes, but don't prevent others from forging ahead. Learning does not stop, irrespective of age. It definitely slows down with age, but some of our brightest minds in history produced their best work well past normal retirement age. At the tender young age of 50 I still consider myself to be abreast of cutting edge technology in my field - I might take longer in grasping some things than when I was at varsity, but I still grasp it, eventually. Attending SARL outings, like the RTA, really gives me hope. There are "old" people, like John Williscroft to name but one, who present cutting edge technology in a watered down

way so that “common” hams, like myself, can understand the principles, and that we can actually learn and construct projects from these presentations. These events are what keeps us interested in our hobby and provides us with information and technology to ensure growth in our hobby.

Not only that, but there has been a dedicated effort by a certain club committee member to ensure that the club benefits financially from tenants on our repeaters. And this in turn gives us financial means to get our repeater sites back into good condition. Two towers need painting, the buildings and fences need maintenance etc. Some of these hard earned funds will no doubt be spent on this, and hopefully there will be funds left for new projects. Our club fees have been increased from R140 to R150pa. Members still insisting on mailed copies of the HHN will still only have to pay R50 extra for this even though it does not cover the printing and mailing fees. Someone asked what they get for their R150 annual subscription fee???? I suppose that the next motion will be to offer free membership to all members or to anyone who wants to join! The new South Africa is a reality, but we don’t subscribe to the gravy train theory - it does not work! To expect financial returns in exchange of the R150 membership fees is just plain greedy, in my opinion, of course. As far as I’m concerned, the club supplies services way in excess of this in terms of repeater access, digital mode access (EQSO, Echolink, Packet Radio, and possibly D-Star in the future), report backs of what is happing nationally and internationally, organising fun events, participation in sporting events, and much more. Maybe we should start thinking differently, and rather than “what do I get for R150", think along the lines of “how can I contribute to improve the club”. The efforts by members on the present committee ensure that subs are being kept as low as possible, and to ensure that after expenses we have enough funds available for other activities to promote our hobby. Did you know that a loaf of bread costs about R10? Club fees for the next year equate to R12.50 per month. As always, the club will accommodate those who are in financial difficulties, on an anonymous basis. Without the extra funding organised by the committee, the necessary subs would be at least 3 fold.

We definitely have exiting times ahead in our hobby. At the recent space symposium and at the RTA various presentations showed us how we can become active with new technology. They are trying to secure space on at least one satellite, and have asked all of us for input of what we would like to utilise the space for. This can involve you directly, and then also later on, when playing with whatever ends up in the satellites. Various members have expressed interest in digital mode experimentation, not just D-Star.

The articles in this edition are not a punt for a D-Star repeater system in particular, but rather for something new, in the digital world. If D-Star fits the bill, then it is something to consider.

Please also remember that the last AGM, it was decided to move the AGM September, and it will take place on the 18th of September at 11h00.

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If you have any useful articles for this newsletter, please email them to zs5ml@marc.org.za for publication. Any articles of interest to Amateur Radio, both technical and non technical, will be well received.

If you would like your own email address ending with @marc.org.za, please contact me.

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Ham Bulletin Readers

27 June - ZS5CID
04 July - ZS5PJ
11 July - ZS5BGV
18 July - ZS5ML
25 July - ZS5CID

Tailpiece

For something different this month: A palindrome is a word or sequence that reads the same backwards as forwards. The following poem is the reverse. It was submitted by a 20 year old in a contest titled ”u @ 50". Here is a transcript taken from U-Tube:

I am part of a lost generation
and I refuse to believe that
we can change the world
I realise this may be a shock but
“Happiness comes from within”
is a lie, and
“Money will make me happy”
So in 30 years I will tell my children
they are not the most important thing in their life.
My employer will know that
I have my priorities straight because
work
is more important than
family
I can tell you this
Once upon a time
Families stayed together
but this will not be true in my era
this is a quick fix society
Experts will tell me
30 years from now I will be celebrating the 10th anniversary of my divorce
I do not concede that
I will live in a country of my own making
In the future
Environmental destruction will be the norm
No longer can it be said that
My peers and I care about this earth
It will be evident that
My generation is apathetic and lethargic
It is foolish to presume that
There is hope

And all of this will come true unless we choose to reverse it.

Now read the above lines in reverse order

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Paddy tells Mick he's thinking of buying a Labrador.

"Dinna be daft" says Mick, "have you seen how many of their owners go blind?"

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