



# JOTA

Congratulations to all those who assisted with JOTA this year. It was acclaimed by the Scouts and Guides as a great weekend and, according to the editorial in the Hastings Express, they hope to make it a bigger and better weekend next year.

### *Some of the highlights:*

Ray, VK2WRM went to Seaview Mountain with a Scout group from Port Macquarie. He found the best way to work into the 2 metre repeater was to beam in the opposite direction into the mountain!

The Wauchope group got complaints of poor modulation on 2 metres and discovered the 20 metre transmitter was getting into the audio of the 2 metre transmitter. They discovered a good ground is necessary as the rig became RF live on 80 metres.

In Port Macquarie the Scouts rigged an antenna mast for the club which appeared to work well. Unfortunately there was a wedding in progress at the Country Comfort next door and our RF got into their audio system.....

Thanks go to operators, VK2WRM (Mt Seaview), VK2's TT, AYD, DAL (Wauchope), VK2's, XU, UPR, ATM, VY, GMD, WST (Port Macquarie).

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"When things go wrong, don't go with them"

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## CONTESTING

1994

A few months ago some of us had a go at the John Moyle Field Day contest from North Brother mountain. We didn't win, but we had fun with a few laughs and that is what matters.

Some us play Packet, some Satellites, some just rag chew on HF some just procrastinate on VHF. I like contests!

In Russia Amateur Radio is classified as a Sport, it may not be physical, but it sure is mental. Over the past year I have entered 8 contests, hosted by different countries, the last being the VK/ZL DX Contest world wide, the results of which will not be known until next March.

That contest happened to be telegraphy, (sometimes called "CW"). But there are contests for SSB, RTTY, EME, etc.. So you have quite an option. Some countries offer very attractive prizes, for example the Bermuda Contest usually offers the winner a free trip to Bermuda.

It doesn't require sophisticated equipment although a good antenna is necessary. I use a TS-930S and a selection of pre-tuned antenna so that quick band changes do not require time loss having to tune up. All logging is done by computer using the K1EA program. This provides keying control, automatic numbering and instant indication if the station has been worked before.

For small contests such as the RSGB 21/28 MHz contests I use paper logs as the number of stations possible to work can only fill a few pages and there is quite a

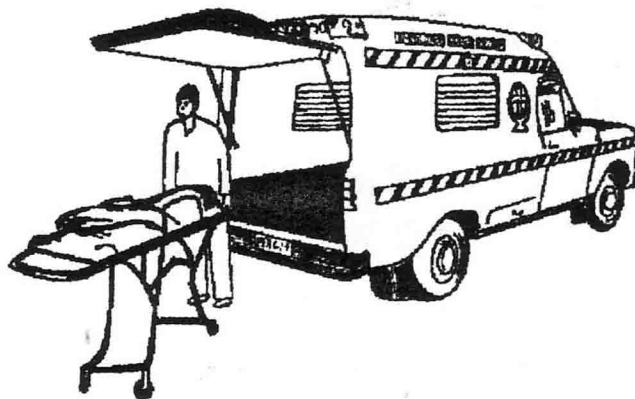
only fill a few pages and there is quite a big time interval between contacts.

Because of our unique location on the earth, these single band contests only require about 2 hours operating, whereas all-band contests can demand the full 48 hours. I must admit I seldom spend more than 20 to 25 hours actual operating time. Because of conditions of late I have been concentrated on single band working such as 21 MHz. In the CQWW SSB contest I worked 1,081 stations in 22 hours, all on 21 MHz. In the VK/ZL CW contest I worked 721 stations with 19 hours of operating.

You need to know a little about band conditions so that you can take advantage of window openings, especially for 28 MHz and 1.8MHz. I usually tune around the bands during the previous few days just to get a feel of conditions. The RSGB 21/28 MHz contest was only a 12 hour contest, but it didn't start until 20.00 our time and at that time of night, the band is going dead. All I could do is take advantage of the short 2 hour opening before the band closed. It didn't make a big score for me, but it did help the G stations that were contesting.

Why have I had this passion for contests over the past 50 years? Very simply I like the competitive thrill of possibly winning. It has also brought me together with many similar people around the world. Contests are one way we keep in touch. In some ways it is no different from you packet buffs that go looking for wormholes - it offers a challenge. Why not join me on the next SSB contest, you'll be surprised just how many countries you can work in such a short time. (VK2AYD).

## HOW SAFE



## IS YOUR SHACK ?

*(A synopsis of an editorial written by VK2AYD and published in September 87 AR).*

Have you given any thought to the potential danger our wonderful bobby brings us close to ? Some of us probably think the main household general purpose outlet fuse is sufficient safety. It is for your equipment, but not for your life.

Modern homes have ELCB's fitted to provide personal safety, especially in the bathroom. Older homes may not have them and could be hazardous. You should have an ELCB protecting you in your shack.

What is an ELCB ? It is a current sensitive (core balanced) earth leakage device that is designed to trip when very small currents are leaked to earth.

We glibly talk about dangerous voltages, but it is current that kills, usually passing from hand to hand or hand to feet and passing through the heart.

The general accepted level of current for external body contact is 1 mA. At this current a slight tingling sensation can be perceived. At approximately 9 mA we reach the "let go" threshold and by 10 mA

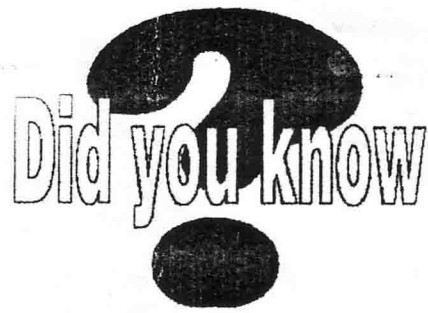
we are at the "locked in" stage and constrictions of the thoracic muscles occur. By 75 mA death can occur.

Time of course is critical. If you look at the standard electric cardiogram of one pulse beat of the heart, the period where normal pumping action occurs is during the QRS phase, followed by the partial refractory T phase, or rest period. Taking an average pulse of 80 beats per minute, we have the duration of one cycle as being 750 milliseconds. The period of partial refractory, or T phase, is about 20% of the overall period which is 150 milliseconds. 150 ms - frightening isn't it !

Most homes with ELCB's installed have the 30 mA type, Bathrooms 15 mA. Why 30 mA?. It seems that refrigerators and other appliances have slight leakages and some power supplies such as TV's, computers, etc., have capacitors by-passing to ground. If these go slightly low and it all accumulates, it could be a nuisance but not necessarily dangerous. Bathrooms usually have their own circuits and therefore the usual hazard is the hair drier (I've never heard of an electric razor causing an earth leakage, but the power pack could quite easily develop a fault).

Although the outlets in my shack are protected with an ELCB at the main board, I have all my equipment plugged into a portable 15 mA ELCB. I also use a portable ELCB with all power tools and electrical devices outside the house. Death has been known to occur using electric lawn mowers and cutting through the cord! I'm not ready to go yet.

If anyone would like a copy of the full article, please contact the Secretary.



To communicate with someone underground you use VLF which tends to go through the earth. The Molephone works on 87 kHz. (RSGB)

Have you wondered why the frequencies allocated to the Amateur service differ from region to region? The world is divided into 3 parts by the ITU (International Telecommunications Union). Each region allocates frequencies depending on the local circumstances. Region 2 has 200 kHz more than us on the 80 metre band. (RSGB)

That knots can reduce the effective strength of a rope by 40-60%, so rate your guys accordingly. (RSGB)

The NiCad battery is being superseded by the NiMH (Nickel-Metal-Hydride). It offers 30% more energy and is environmentally safe. (ARRL)

That if your mobile rig causes a malfunction with the electronics on your new car you may void the warranty (AARL)

There are thousands of radio-emitting objects in the universe. VLA's map these. The VLA (Very Large Array) in New Mexico consists of 27 82ft-diameter dish antenna's in a 'Y' formation. Each leg of the Y is 13 miles long. Each map shows over 1,000 signals - so maybe Big Brother is watching! (ARRL)



# Great Lakes Triathlon

Witness a cardiac arrest first hand. See athletes suffer total renal failure. Observe your first case of muscle melt-down. View masachism in its purest form. Yes, its on again soon, the Great Lakes Triathlon.

Michael VK2CMW extends an invitation to all interested amateurs to assist with communications at this event on April 19, 1995.

Michael says, "Operators are once again required for many jobs ... manning 'aid' stations, packet radio stations to input race results as competitors pass check points and also medical mobile teams, travelling the course with doctors and nurses and looking after the medical needs of the competitors (the most interesting job)." Personally, I find travelling the course with a nubile nurse most appealing.

Usually in excess of 30 operators attend the social on the Saturday night where food and fire-water are supplied free. As a further inducement, your petrol to and from Forster is provided.

If you would like more information you can contact Michael on the twisted pair on (065) 545797, on packet VK2CMW@VK2DYX , or see either VK2AYD or VK2DAL at the club on a Friday night. Remember, nurses are provided.



*Not a competitor, but in fact an amateur operator at the triathlon chasing a nurse!*