

SHACKNEWS

HIGHVELD AMATEUR RADIO CLUB

PO Box 1111, Bedfordview, 2008

May 2003

e-mail zs6bfl@telkomsa.net

COMMITTEE



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Sunday morning BULLETINS - 145.7875 MHz & 7062 KHz @ $\pm 08h45$.

SILENT KEYS

ZS6MW. It is with deep regret we announce the passing away of OM Ed Gezernik, ZS6MW on the 25th of March 2003, after a long and, for him, frustrating illness.

Ed, who was 78 years old, supported the SA Radio League and the HIGHVELD Club in particular, since 1975 and was a superb craftsman, an excellent constructor and a perfectionist. He regularly went out of his way to help anyone, but especially Hams, with projects and advice, always friendly and courteous, on the air and off.

His regular weekday morning contributions, will be sadly missed on the HVB repeater by the Porky Club.

We extend our deepest sympathies and condolences to his wife Ann, family and friends

ZS6EYE OM Maarten van den Steen passed away at home on Saturday, 19th April 2003.

Maarten, was 63 years old. He was a staunch supporter of the porky club for many years.

Many of us will remember his many stories and useful hints and tips when he was working as a handyman.

We extend our deepest sympathies and condolences to his wife Denise, family and friends

COMMUNICATION IS THE NAME OF THE GAME

MEETING The meeting held on 3rd May 2003 saw a much better turn out of members. Thanks to those who attended and those who provided refreshments. Yvonne, ZR6TBL, gave feedback from the AGM. The main topic being the annual subscriptions for 2003/2004. This was rejected by the majority of member and proxies. A special budget meeting is to be held on the 17th April 2003 at Radiokop.

SSC Turn was no to wonderful on the 10 th May. ONLY 4 present. OM Johnny, ZS6EH, who has been licensed since the mid 30's gave us (3) a most interesting talk on his early days in amateur radio amongst other things. Tnx Johnny.

SPECIAL BUDGET MEETING The special budget meeting held on Saturday at the NARC was attended by 20 league members of which six were council members. The members present represented thirteen clubs. Vice President Hans Potgieter chaired the meeting which lasted from 11:30 till 14:30. Bill Norval, ZS5KD, explained the draft budget presented at the last AGM line for line and after thereafter members commented critically and in depth. The end result was that the treasurer has been tasked to draw up a budget based on comments already received, acceptable membership fees and services that must be rendered but with expenditure subject to strict control. Sandton Club will compile a comprehensive report which will be included in next week's bulletin (25 May) and also be circulated to clubs for information and comments.

The Special General Meeting where a budget must be accepted, has been convened for **21 June** and **members, clubs and branches will thus have approximately five weeks to prepare them for meaningful participation in the SGM.**

Your license is only a privilege and needs protection; else your investment has been a waste

Frequency spectrum utilization is being monitored throughout Gauteng and, coupled to the coming World Conference on the use of this band by powerful Earth Resource monitoring satellites, we hope that Amateur Organizations (SARL) have enough clout to ward off this danger
(tnx to Has ZS6KR from WATTS)

If you are not part of the action, and the amateurs loose spectrum, who are you going to blame? There seems to be about 1000 who will renew their membership. This is not representative of the whole amateur fraternity in South Africa. In other words not much clout. So. How about joining/rejoining the League.

It will be appreciated if all members attend the next club meeting on 7 June 2003

SWAPS

This column is still FREE for you to advertise anything that you would like to. Just give the editor a call.

011-893-1291 or e-mail zs6bfl@telkomsa.net

Lifted from the WEB

TUNING FM RADIOS, PART 3

TEST BENCH

Spend some time setting up your test bench. Eliminate as much haywire as possible! A clean professional set-up prevents needless frustration and prevents shorts and damaged equipment. When tuning the Motorola radios get an extra main connector plug if you at all possibly can and wire yourself up a simple control head with a speaker in it. A transmit PTT toggle switch is wonderfully handy as are terminals for your AC voltmeter. **WARNING:** The MITREK radios use a floating push pull audio output stage! There is 7 volts to ground on both sides of the speaker. Grounding either side will burn out one of the two (or both) of the expensive audio output IC's. Connect your AC voltmeter from one side of the speaker to ground. **DO NOT** connect the ground lead of the voltmeter to the speaker terminals.

When you start tuning be careful that you do not end up barking up the wrong tree. You can get false peaks (weak ones) that make the radio appear to be "almost" working and lead you astray. Keep in mind that when adjusting slug tuned coils that turning the slug clockwise screws it lower in the coil form. This lowers the slug into the coil **REDUCING** the resonate frequency of the circuit. Turning the slug out (counter-clockwise) lowers the inductance increasing the resonate frequency.

For example, if your tuning a radio from the 150Mhz public service band to the two meter band, the coil slugs have to go deeper into the coil forms, not out. The same for the helical resonators. The screws turn inward to lower the resonate frequency, outward to raise it. It is vital that you tune the radio in an orderly planned way, never start tuning coils helter-skelter. Never forget this!

Ferrite slugs in the coils are easy to break. Try to have the right alignment tool if at all possible. Never force a slug to turn, you will break it. If a slug jams, take the coil form off the board, disassemble it and try to find out why. You may have to pick wax or glue out of the form to free the slug. Gentle heating with the tip of your soldering iron or even a tiny drop of oil will sometimes free jammed slugs.

FINAL STAGES

FM radios have class C amplifier stages. Class C amps have a tendency to "come alive" suddenly when the drive from preceding stages reaches a critical point. One second the wattmeter reads zero, then with the slightest turn of a slug the wattmeter pins. Other than its emotional affect, pinning the wattmeter needle is of little use to you.

Before starting to tune up a FM transmitter, I always locate the radios power output set control and turn it down. Tune all of the multiplier and driver stages first using the metering pins per the instructions. When you're ready for the P.A. stage, then turn the power set control up part way. After you get an indication of power out of the P.A., and you're sure the radio is tuned properly, then go ahead and set the power out to the desired safe level. When tuning P.A. stages, it is very useful to have an amp meter in the power supply lead. Never tune a FM amplifier for maximum output. Always tune for the best efficiency. That is, the desired power output at the least PA collector current. This requires watching both meters at the same time while you tune. Not an easy trick I admit. It takes time to tune for maximum efficiency and this is one reason it is important to do it at a low power level where you can do it safely.

As you tune the P.A. you will clearly see that at some power levels much more current is drawn by the P.A. transistors than others. In most cases I have seen the increase in power of only 5% can easily increase P.A. current by 20% or more. Obviously your far better off **NOT** to have that 5% extra RF power output due to the stress it puts on your power supply and P.A. This is clearly a case where less is more.

Although I have said this many times before, I will state it again. For Amateur Radio purposes **ALWAYS** derate the power output of the transmitter! Commercial transmitters like the MICOR and MITREK are designed for very low duty cycles. Commercial users simply aren't rag chewers! If you have a 50 watt radio, use the power set control to reduce it to 25 watts. Tune for the best efficiency and your radio will last a lot longer.

END

David Metz, WA0AUQ

(many thanks Ed.)

A BIT OF HUMOUR

THE SEXES

ZIPLOC BAGS - male, because they hold everything in, but you can always see right through them.

SHOE - male, because it is usually unpolished, with its tongue hanging out.

COPIER - female, because once turned off, it takes a while to warm up.

TIRE - male, because it goes bald and often is over inflated.

HOT AIR BALLOON - male, because to get it to go anywhere you have to light a fire under it ... and, of course, there's the hot air part.

SPONGES - female, because they are soft and squeezable and retain water.

SUBWAY - male, because it uses the same old lines to pick people up.

HOURLASS - female, because over time, the weight shifts to the bottom.

HAMMER - male, because it hasn't evolved much over the last 5,000 years, but it's handy to have around.

REMOTE CONTROL - female ... Ha! You thought I'd say male. But consider, it gives men pleasure, he'd be lost without it, and while he doesn't always know the right buttons to push, he keeps trying.

Thanks to whoever e-mailed this.