Zululand Amateur Radio Club News

The newsletter for the discerning Ham

February 2017

ZARC Committee

Chairman: Warren Snyders ZS5WOZ

Vice Chairman: Gerald Scrooby ZS5GS

Treasurer: Willie Axford ZS5WI

Secretary: Dawn Snyders ZS5ME

Ham Net: Mike Kramer ZS5MB

Editor: Jo Snyders ZS5PO

Member: Vacant

Webmaster: Chantel Pelser

Club Repeaters

Ntumeni 145.675 MHz

Empangeni 145.700

Club Packet Digipeater/Mail-drop & APRS Digipeater

Ntumeni 144.625 (ZS5ZLB Mail, ZS5ZLB-2 Digipeat, ZS5ZLB-7 KA-Node) PBBS: ZS5AND

Club Nets

There is also a club discussion net on Tuesday evenings at 18:30 on the 145.675 repeater
ZS5PO & ZS6AE Have A Sched On Thursdays Between 17:30 and 18:45
On 7.175 Or 3.645 Depending on propagation
ALL are more than welcome to join us for a "rag chew"

SARL News

08h30 - Sundays - 145.650, 7.066 MHz

NEXT ZARC MEETING

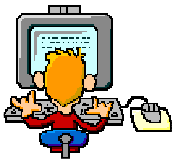
DATE: 16th July 2017 (Sunday) This will also be the AGM (This is still tentative)
TIME: Meeting at ± 12:00, followed by the lunch at ± 12:30

QTH: Eagle's Nest Eshowe (Directions will be circulated later)

E-Mail: dawnjo@telkomsa.net (Secretary)

Club Web site: http://zs5zlb.org.za/

Editor, Q.R.L.



Greetings & Salutations fellow members, I trust that this news letter finds you all in good health. The date of the next club meeting **will tentatively** be on the **16th of July 2017**. The venue will be **Eagles Nest** Eshowe. The meeting will take place at **± 12:00**, and the lunch at around **12:30**. Please make a note in your day books and diaries. The time for the meeting will be at **12:00**, giving everybody a chance to get there after Sunday morning commitments.

Have you bought insurance to continue enjoying your hobby yet? SARL membership IS that insurance!!!
Is your hobby worth R1.26 per day to you? YES?! Then join the SARL, it's the RIGHT thing to do!!!

The radical opinions, and rantings of the Editor, are not necessarily the opinions of, or supported by, the ZARC Committee, or it's members.

Wots Potting In The ZARC

Birthday Greetings Go To:

March: Rob, OM of Anne ZS5FAB on the14th. Jo ZS5PO on15th.
April: Warren, ZS5WOZ on the 13th. Jan, ZS5G on the 15th. Brian, ZS6AE on the 26th.

Many happy returns to all of you, and may you be spared for many more happy, healthy, years.
(If your birthday wishes do not appear here, it is because you have not informed me of your birth date).

Get Well Soon

I have not heard of anybody who has been "doctor bothering" of late.

Club Happenings

Next Club Meeting

This will be the AGM. Tentatively taking place on **Sunday 16th of July** at The Eagle's Nest B/B & Restaurant in Eshowe. It has been decided to try a new venue for a change. I will be sending out a copy of their menu as soon as I can get one. Directions to the venue will be forwarded closer to the date.

February Meeting At Tattenham

The last meeting took place at Tattenham on 12 Feb. and was attended by Warren, Willie, Dawn Gerald & Jo. There were also our Webmaster, Chantel, and several other family members.

On the left, from the left, is Bridget, Gerald ZS5GS, Warren ZS5WOZ & Willie ZS5WI.
On the right is a picture of the Meeting table, which turned into the dining table after the meeting. Despite it being a very hot day, we had a cool breeze blowing from across the dam. A pleasant outing was enjoyed by all.

Club Birthday

On the 15th of February, the club's 22nd birthday, Gerald, ZS5GS, ran a ZS5ZLB club station from his QTH, from 08:00 to 19:00 on 7070. Despite really "Grotty" conditions, he managed to log 26 contacts.
Very well done Gerald.

Competitions

The first SARL field event of the year took place over the weekend of **11 – 12 February**.
ZARC did NOT take part.

Packet

On the packet Mail-Drop scene. The TNC is beaconing out. The coax on this set-up still has to be renewed, and the antenna moved to the east side of the tower

APRS

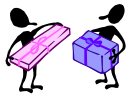
People in the Richards Bay/Empangeni area can get into the PMB I-Gate on 144.800.
For those of you Zululanders who have Internet, go and look on the **www.aprs.fi** web site, and type your call sign into the slot at the top of the column on the right, and press search, and see if your station appears on the map.

Repeaters

145.675: This repeater was replaced after the Xmas meeting & lunch in 2015, and the old Storno is working well.

145.700: This repeater is now a DEAD puppy, and needs LOTS of TLC. **STILL waiting for ESKOM to open up for us to get into this site.**

"SWAP SHOP"



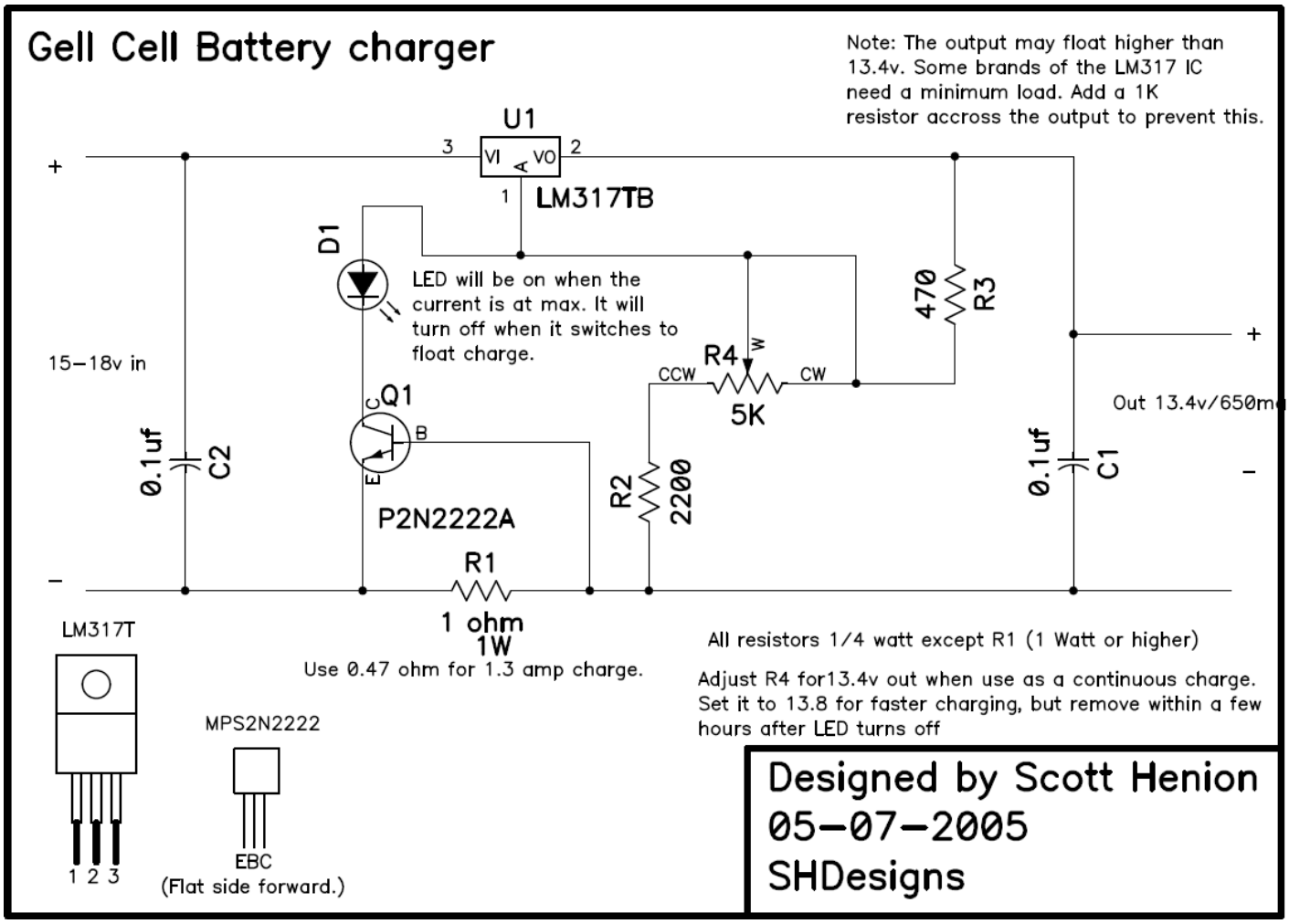
If you have any items you want to get rid of, or if you are looking for something, Please let the Editor know and he will advertise it in the swap column for you.

1 X **Neutec SM-1645** 16 channel 2Mtr VHF radio for sale.
Service, user and reprogramming instruction manuals available.
Reason for selling: Surplus to requirements

If anyone has an Icom **OPC-581** or **OPC-587** separation cable for the **Icom IC 706** to swap or sell. They can contact me, **Willie ZS5WI**, via **078 351 9597**, or email me at **zs5wi@telkomsa.net**.
Thank you.

Home Brewers Hoekie

Gell-Cell Charge Circuit



Revised 5-7-2005: Added LED and notes to schematic.

The above schematic can be viewed in Adobe PDF here: gcellchg.pdf (right-click on link and select "save link as" to save.)

The above circuit will charge any 12v Gell Cell. Maximum current is about 650 milliamps. This charger will not overcharge a gell cell. In fact, it can be left on indefinitely. This is an improved version of the float charge method described by Panasonic: http://www.panasonic.com/industrial/includes/pdf/Panasonic_VRLA_ChargingMethods.pdf

Power can be from any 15-18v supply. I use an old 12v/1A wall transformer (outputs about 17v with no load.)

How it works:

This circuit controls both the current and the charge voltage. U1 along with resistors R2, R3 and R4 generate a 13.4v output. This is the voltage specified by gell cell manufacturers as a "constant charge voltage." At 13.4v the batt will never overcharge. Some batteries specify 13.6 to 14.7 volts, but testing has shown that many batts will leak if float charging at this voltage *. U1 can only carry up to 1.5 amps and is limited by its heat dissipation. Q1 and R1 limit the current to about 0.65 amps. This limits the current to protect U1 and the battery from over current.

* Panasonic batteries may be able to withstand this voltage. My work with UPS designs has had terminals of several brands corrode off of batteries if the voltage was set higher than 13.4v.

Notes:

- Input voltage can be from 15-20v.
- Q1 can be any general-purpose NPN transistor.
- All resistors are 1/4 watt except for R1, which is 1/2W or greater.
- C1/2 are any 0.1uf capacitors.

A 7Ah Gel Cell will be close to fully charged in a few hours after a normal days use. Leaving the battery on the charger will NOT overcharge it. In fact it will maintain a battery forever.

Assembly:

The entire circuit can be constructed on a small perf board 1" square or so. U1 (LM317) must have a heat sink; a small piece of aluminium will do. There are many heat sinks available. The size of the heat sink depends on the input voltage. Note: the case of U1 is connected to pin 3, so the heatsink must be isolated from any other parts of the circuit. An insulator (TO-220 type) can be used to isolate the case from the heat sink if needed (i.e. bolting U1 to the case as a heat sink.) U1 should not get too hot to touch.

Adjust R4 for 13.4 to 13.5 volts out with no load.

Parts (Radio Shack part numbers given.):

	Description	RS part #
U1	LM317T adj. regulator	276-1778
Q1	2N2222A NPN trans.	276-2009
R1	1 ohm/ 1/2 watt resistor (note 1)	271-131
R2	2200 ohm 1/4 w, 5% res	271-1325
R3	470 ohm 1/4 watt, 5% res	271-1317
R4	4.7K trim Pot	271-281
C1,2	0.1uf/5ov ceramic cap	272-135
	Heat Sink	276-1368
	Mounting hardware (note 2)	276-1373

Notes:

1. RS part is 10 watt, only size they carry in 1 ohm.
2. Required if heat sink is isolated.
3. The current limit can be changed as needed. Current is set by: I=0.65/R1 R1 must be able to dissipate at lest 0.423/R1 watts.
4. The time to charge will be sped up by setting a higher voltage. 13.6 is usually fine. 13.4 was chosen to allow infinite charge time.

If you would like to contribute to your Club newsletter, or to contact me for any reason, please use the address / Phone numbers below.

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