



Linear Lines

Trident Amateur Radio Club (TARC) Newsletter
April 2014

TARC Nets:

Every Tuesday, 147.27 MHz PL 123.0

- 7:30 PM CW practice
- 8:00 PM Net

Upcoming Events:

- Apr 16 License Exam session
Contact: Robert AE4RJ
- Apr 19 TARC Tailgate
Apr 21 Club Meeting
- May 5 Board Meeting (all welcome)
May 18 Fox Hunt!
Contact: Tom W4DAX
- May 19 Club Meeting
May 22 Dinner Group



You couldn't ask for nicer weather or better company – Last weekend was TARCnic 2014, with great food and fellowship, and friendly games. As Dave AE4ZR put it so succinctly (or was it Bob NG4R?), "If you go home hungry, it's your own fault!"

From The President

Another great month! We participated in the **MS walk**, and the weather was great with a large crowd. The organizers expressed their appreciation for our communication support each year. We then had another successful **Operating Day** at the Weapons Station and demonstrated Ham Radio to several students while exercising our two HF stations. Last Saturday we had another great **Picnic** with lots of food and another corn-hole toss championship. I lost the names of the winners but I know they are excited. We also had another fantastic **Dinner Night** at Texas Roadhouse, with a huge crowd. We are looking forward to next month's dinner group at Cracker Barrel. Last but not least, the TARC Tuesday two meter CW and voice nets are getting more and more activity each week. So we've had lots of things going on this month.

You can check out the calendar on the web page for all the exciting activities coming up in the next month. We have more planned, including our **Club Tailgate** on 19 April, the SC Section **Hamfest and Convention** in Spartanburg SC on 3 May, Also our next **Foxhunt** will be on 18 May with Tommy AA4TB as the fox. Hope to see you at some of these great activities.

(continued)

Equipment Loan Program

Did you know the club has several pieces of HF and VHF equipment that we can loan to a new ham to help put them on the air? This is a great way to get on the air while you're planning for (and saving for) your own station. Contact Ron K4TCP if you are interested in using some of this equipment.

You Heard WWV Where??

Want to catch WWV—the Fort Collins-based time station—on a frequency they haven't used since 1977? The National Institute for Standards and Technology (NIST) has sent out a press release stating that, as of April 4, 2014, WWV resumed broadcasting on 25 MHz for a limited time.

QRZ

Everyone should visit QRZ.com and input your call sign. See what is listed – if there is not an entry, you should think about putting a small blurb about yourself and your ham related activities.

(continued from pg 1)

I have to mention the incredible band openings we are experiencing on 10 and 20 meters. In just three days, I worked stations from *every continent*. Two meters has also been active with stations from as far away as Florida checking in on the local repeaters. Ham Radio is a contact sport. Make some today.

73 Tom Lufkin, W4DAX

From the VP shack

Field Day 2014 is approaching fast!

Field Day is June 28-29, 2014, the last full weekend of June. The signup sheets will be published shortly for setup help and an operator schedule. Please check your calendars and volunteer to help with setup/tear and/or operate for one of the 1-hour time slots. We need to blow away last year's score. Let's try for #1 in the state for 2A! Stay tuned!

73 Steve KE4THX

VE Exams

19 March 2014 saw a banner test session by the Low Country VE Team. The Team hosted nine candidates who endeavored to obtain a new license or upgrade their current ticket.

Of the nine, four new technicians, three new generals and an extra left with CSCE's in hand. Our new extra arrived at the test session *unlicensed*, and is now proudly awaiting his new 2X2 call sign.

Our sincerest congratulations to all our new and upgraded HAMs!

VE exams are given each month at the Masonic Lodge on St James Ave. The next exams are on the 16th of April. For more information see tridenthams.org

Samuel B Morse

Samuel B Morse was born on the 24th of May in Charlestowne Ma.

Woody Ebersold AC2AQ

Woody was involved recently in an automobile accident and is currently in critical condition in MUSC ICU. Please keep Woody and his family in your prayers.

Treasurer's Report

The TARC spring picnic was held last weekend and everyone had a great time. Food was excellent and no one left hungry. I found out that lots of people can beat me at cornhole and I need to find a new game. Tom's new cooker fell apart on the way out to the location. He did manage to get it put back together enough to work. (sorta) Still needs a few bolts and nuts to be 100%. Someone mentioned we had a few nuts standing around, but we found that none of those nuts fit.

Plans are underway to kick off the builder's group at Tom's garage soon. We have all sorts of interesting projects to build. I can't wait to get started. The weather has finally broke and we are starting to have some nice spring-like weather. That means that it is antenna season. I got one to put up and if anyone needs any help with theirs, let someone know so we can get the proper help for you.

The radio giveaway has been very successful and we are going to expand it slightly. If you win, you can either have a radio, or a certificate for a TARC shirt and hat. The prices are similar so we will make it your choice. If you have an idea on something else to give away, let us know at the board meeting.

The board meeting is the place to present any new idea and all are welcome to come. Board meets first Monday night of the month, at Red Cross. We have also decided to definitely give something away by the second time. This means that we will draw till we get a winner the second time if no one wins it the first night. Same criteria, you have to have paid up dues, be present, and paid your two dollars. 73 from Bob NG4R

POP QUIZ !!

What happens to power lost in a feedline?

- It increases the SWR.
- It comes back to your transmitter and could cause damage.
- It is converted to heat.
- It can cause distortion of your signal.

POP QUIZ Part Deux

April Birthdays: Just one, this month:
Alan Fitzsimmons W4ANT. *Happy Birthday!*

What does an SWR reading of 4:1 mean?

- a) An antenna loss of 4 dB
- b) A good impedance match
- c) An antenna gain of 4
- d) An impedance mismatch

QSL Bridge from USA to EU: Cheap and Easy

Acting as a wormhole, gateway, or whatever you want to call it, the **EuroBureauQSL** has opened a special *entry point* in USA, where American hams can send their QSLs to **EURAO** members abroad (no matter where they are) for just the price of a national stamp. That's it.

It is like another *Outgoing QSL Service*, but, instead of paying the puddle jumping the senders, with their ARRL membership, the recipients do so through **EURAO**.

Thanks to **W2EN, Doug**, QSL Manager, this new entry point is up and running. Please, try it.

First filter your QSOs with the utility "[Check log](#)" and then send the QSL cards to:

EuroBureauQSL USA

Douglas Rue, W2EN
21 Jeffrey Court
Somerville, NJ 08876

Want to see something in Linear Lines?

If there's something you want to see in Linear Lines, please send it to Robert KV4LV <kv4lv@arrl.net> by the second Monday of the month.

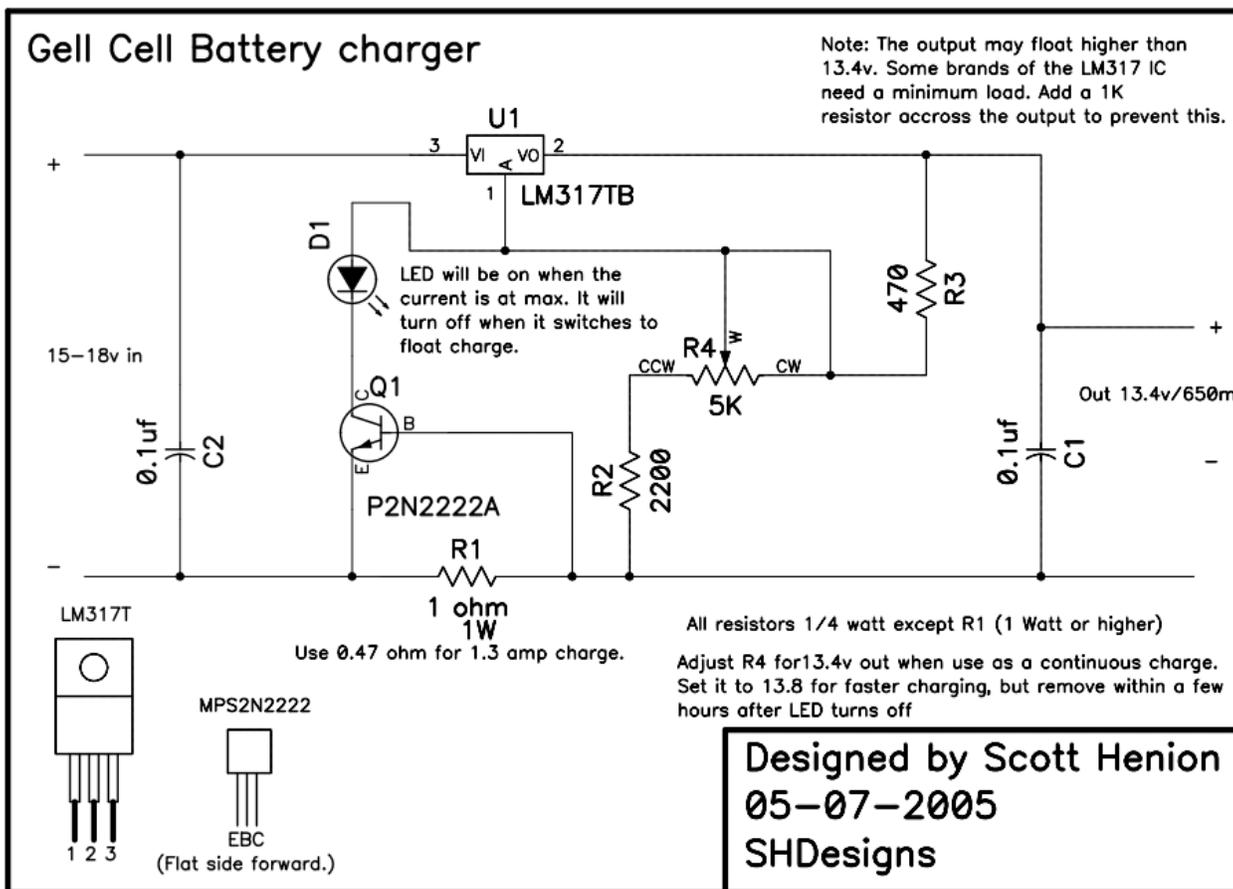
Build this.....

Simple Gel Cell Charger

By Ron Davis – K4TCP

4/13/2014

Here is a circuit I ran across that I built to charge my Gel Cell batteries. These are the 12V, 7AH batteries that many of us use to run portable electronics or even our rigs in times of emergencies.



The above circuit will charge any 12v Gel Cell. Maximum current is about 650 milliamps. This charger will not overcharge a gel cell. In fact, it can be left on indefinitely.

Power can be from any 15-18v supply. I use an old 12v/1A wall transformer (outputs about 17v with no load.) Adjust R4 for 13.4 to 13.5 volts out with no load. **Higher voltage will cause a meltdown of the battery, so be careful.**

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 battery will never overcharge. Some batteries specify 13.6 to 14.7 volts, but testing has shown that many batteries will leak

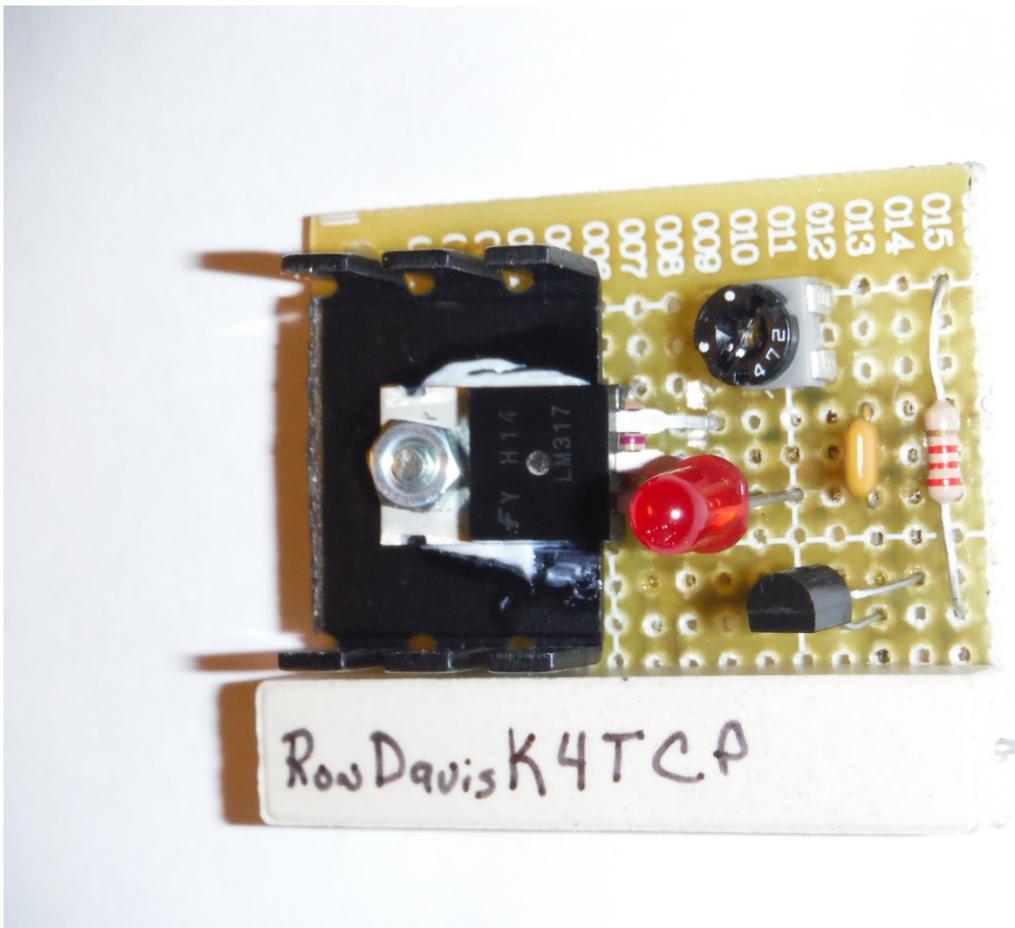
(aka MELTDOWN) if float charging at this voltage *. U1 can only carry up to 1.5 amps and is limited by its heat dissipation. Q1 and R1 limit the current to about 0.65 amps. This limits the current to protect U1 and the battery from over current.

Parts List:

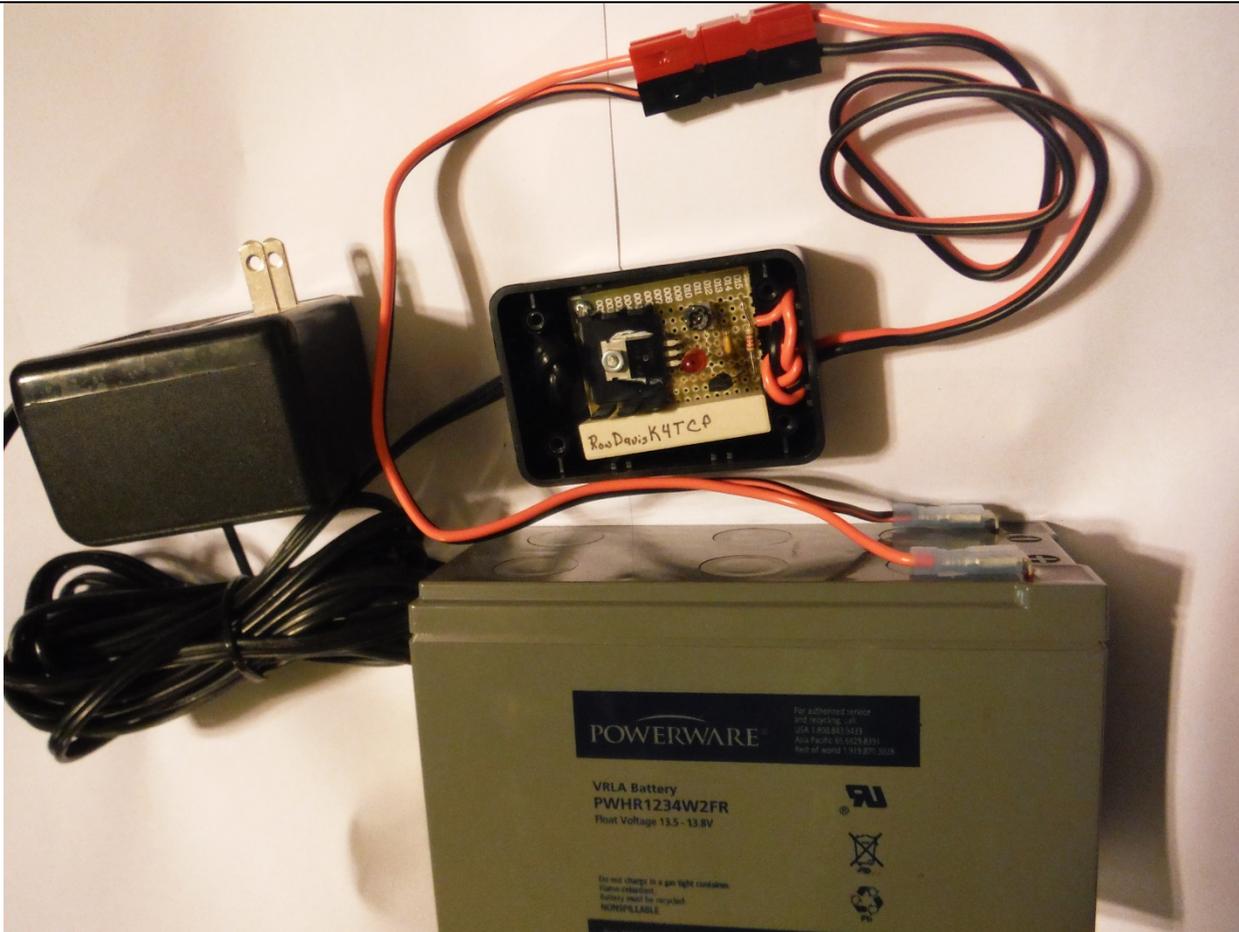
Parts (Radio Shack part numbers given.):

	Description	RS part #
U1	LM317T adj. regulator	276-1778
Q1	2N2222A NPN trans.	276-2009
R1	1 ohm/ 1/2 watt resistor or 10W	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/50v ceramic cap	272-135
	Heat Sink	276-1368
	Mounting hardware required	276-1373

Most of these parts I had in my parts bin.



Initial circuit built on perf board, R3 and C1 are located under the heat sink.



Completed charger with case, 12V wall wart and connection to battery via Anderson Power pole connectors.

Ron – K4TCP (Ron.Davis@gmx.us)