

****The Capacitive Battery Charger****

By: Mitch

forwarded by Jeff Voelkers, KB0GKN

What would you say if I told you it is possible to build an effective simple battery charger that has no moving parts, has no generator, works day or night, and has no solar cells? What if I told you this could be done with a few scrounged parts for which \$10 would be an exorbitant price?

Just about every Ham operator knows better than to disconnect an antenna and then pick it up later by the connector and touch a ground. Enormous charges can build up on an insulated wire and the longer the wire the more charge that will build. Most all of us have learned to pick up the coax and tap or hold the antenna against the case of the radio to bleed off this charge.

SO POOR

How few of us have ever been so poor as to have to think about how they can use this free energy?

Wiley Almond, told me how to do this a few years ago. When he was a kid in the depression, buying batteries to listen to his homebrew 2 tube regen radio was out of the question. So they used the long wire antenna they had scrounged from an old telegraph line to charge the batteries so they could listen to the radio.

What Wiley did at the rip old age of 12 or 13 was hook a sparkplug to the end of the wire and then run the ground end (where the threads are) into a 12 volt coil off an old model A, but any old coil will do. The bottom connector of the coil that used to go to the points is hooked to the positive side of the battery.

The negative side of the battery is hooked to a good earth ground and a 1 to 3 KV capacitor (a few picofarad type like those found in the horizontal section of a television chassis) is hooked from ground back to the wire where the top of the sparkplug is connected. That's it! Nothing should be touching ground except the ground post of the battery.

Wiley was using about 200 feet of insulated wire and it will completely charge a 12 volt deep cycle every 2 or 3 days! A thousand feet of wire will do it a lot quicker but the voltages approach lethal levels.

PUT STATIC TO WORK

What is behind this feat is that a very long wire acts like a capacitor and builds a charge on the wire. When a few thousand volts are reached, it will discharge by "sparking" across the sparkplug. The sparkplug delivers the charge to the coil that downconverts it to a few hundred volts and pulses the battery, kind of "squirting" a charge into it.

The weather controls how much static electricity is in the air. Wind and super cold air seem to really make you think you can weld with this thing! I hooked a small neon bulb to a full wave loop on winter nigh when it was snowing with a high wind and the bulb burned continuously all night long!

The higher you get the wire off the ground the better. The wire has to be completely insulated. It doesn't seem to make any difference whether you lay it out in a straight line or weave it back and forth. Length is the thing here, not size. Old phone wire, old coax from the cable company, anything that is insulated and long will do the job.

I use my Ham radio antennas, as they are up and long already. This thing will weld the fillings in your teeth together if you are not careful with it!

Maybe next time I will tell you about the time I went by to see old Wiley, and asked his wife his whereabouts. She shook her head and replied that he was in his shop, listening to the radio by candlelight. She was not lying either! He was sitting in his shop with about 30 thermocouples he had made wired in series and formed into a circle with the centers in a tight circle on a homemade stand. Under the stand, in the center, was a kerosene lamp with the flame heating the thermocouples. 2 clip leads were hooked to a small transistor radio and he was enjoying the local country music station.

He just winked at me and asked if I had ever enjoyed listening to the radio by candlelight.

CU 73 AE4YW Mitch

Send your emails to the original author.

Address: wwwarlord@hotmail.com

Probably wouldn't want to have any electronics around this setup during the "charging" process, especially computers ! Hope you enjoy the article.

73 de Jeff

And maybe April Fool's came a little late this year???? - editor

HAMS HELP IN TRAGEDY'S WAKE (cont'd)

30 operators worked three six-hour shifts from 6 AM until midnight, providing what Cerney described as mostly routine, logistical communication.

"I know all disasters are devastating to those involved," he said. Hurricanes and tornadoes may kill people and destroy homes and property, but the killing of kids by kids is something that I just cannot comprehend, no matter how far away or close to home."

Colorado Section Manager Tim Armagost, WB0TUB, expressed similar sentiments. "We Amateur Radio communicators like to believe we are prepared, but no one could be prepared for the tragic events at Columbine High School on April 20," Armagost said. "The Colorado Section Amateur Radio operators join the community in expressing our shock, sorrow, and sympathy for those affected by this tragedy."

SALT LAKE CITY

In Salt Lake City on April 15, a gunman walked into the Family History Library and started shooting, killing two and wounding five before police shot and killed the gunman. Two building employees and hams—Utah Amateur Radio Club member Spencer Wood, KB7KGE, and Davis County resident Dave Oswald, KD7DHO—put ham radio to use to help evacuate the building.

Wood, the assistant emergency coordinator for the library says he and Oswald—a floor emergency captain—spread the call to clear the building and used an amateur simplex channel to exchange information on the evacuation. After Wood had to leave the building, Wood relayed to police what he was hearing from Oswald inside the building. Wood credits ham radio with helping ensure an orderly evacuation.

WEATHER WATCH UPDATE

At our April meeting we discussed the role of the SEITS Link System in weather spotting. Bill Hays, W0OMV, told us of a new problem at the National Weather Service office in Davenport. It appears that a new computer system is throwing a strong carrier on 146.76 which prevents reception of the System. However, there should be stations available to relay the reports from the Link to NWS.

During the rash of tornados a couple of nights before the meeting, the Link was used to great effectiveness for both spotting reports and relaying of information from NWS to the local areas. A couple of items did stand out. One was the severe hole in the coverage due to the Fairfield repeaters extended absence from the Link. Another was the lack of stations in the Keokuk/Ft. Madison area reporting. Hopefully we can get our system up and running in these areas before the next severe storm event.

We did ask Bill to convey the gratitude of those of us to the west for their help in the latest round of storms. Although technically out of their area, they passed on reports and spotting information for Wapello and Davis Counties in Iowa which were very instrumental in our ability to pinpoint the storms before they entered their actual operational area.

KE0BX

JOURNAL NOTES

The deadline for the June issue is Monday, May 31. We will begin assembling and printing on Tuesday, June 1 with a target mailing date of Friday, June 4.

The June meeting is Saturday, June 12 in Waterloo, Iowa. We have been saying that we were going to make it to Waterloo.... well now's the time!! As a former resident of both Cedar Falls and Waterloo, I am really looking forward to visiting the area again and meeting the local hams. I hope you are too!!

As always, for the most up-to-date SEITS information, check into our website at www.seits.org. We are always adding new stuff, so if you haven't been there lately, you may be missing something!

Til next time. KE0BX