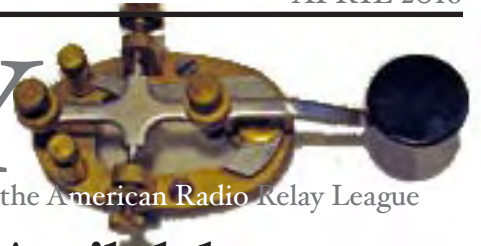


# THE KEY

The Riverland Amateur Radio Club is a Special Service Club affiliated with the American Radio Relay League



## Riverland Amateur Radio Club

P.O. Box 621  
Onalaska, Wis. 54650

## Repeater

146.970 PL 131.8

## RARC Net

8 p.m. Sundays on the  
146.970 repeater.

## Club meetings

7 p.m., Tuesday, meet  
ing room 1, lower level,  
Gundersen/Lutheran La  
Crosse. **Elmer session** 6  
p.m.

## RARC Web page

<http://rarc.qth.com/>

## Storm Spotter Classes

- 6:30 p.m., Tuesday,  
April 5, Marycrest  
Auditorium, Mayo Clinic  
Health System, 700 West  
Ave S.
- 7 p.m., Thursday,  
April 7, Houston City  
Municipal Auditorium
- 6:30 p.m. Thursday,  
April 21, Winona

## Inside

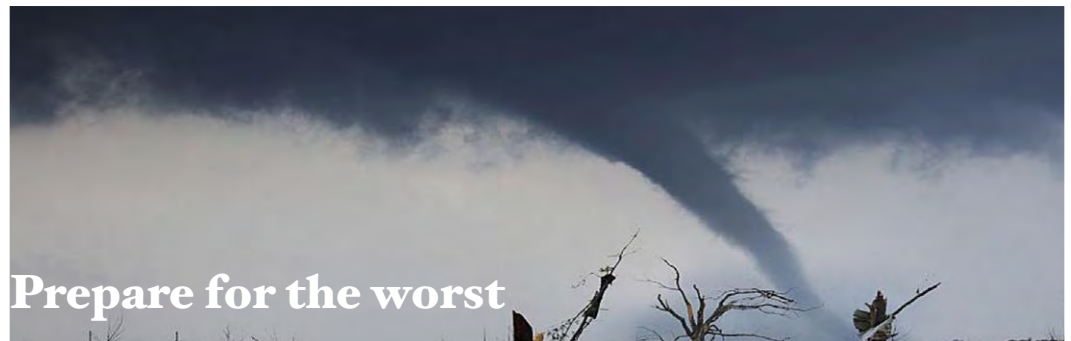
Calendar	2
President: 'be prepared'	2
The club in '85	3
Why be a Ham?	4
Wilson's still around	5
Field Day coming	5
Club news	6

## Storm spotting session is April club program

Spring and summer storm spotting training will be the April 5 program for the Riverland Amateur Radio Club. The session will be 6:30 p.m. Tuesday, April 5, in the MaryCrest Auditorium, Mayo Health System, La Crosse.

The National Weather Service scheduled this time and could not change it. RARC executive Board members decided to make it the club's official meeting as well.

A storm spotting class is also planned for 7 p.m., Thursday, April 7, in Hokah. Refer to the official National Weather Service site for other locations, [www.weather.gov/arx/sky](http://www.weather.gov/arx/sky)



## Prepare for the worst

Some Amateur Radio operators prepare for the "worst." We seem to think that's for places where hurricanes hit, where tornados ravage the countryside, where hikers are lost in the desert or where nuclear power plants melt.

The FCC says "recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications."

An article in Atlantic Magazine [www.theatlantic.com/technology/archive/2016/03/ham-radio-disaster-preparedness/473598/](http://www.theatlantic.com/technology/archive/2016/03/ham-radio-disaster-preparedness/473598/) describes an emergency drill at a Virginia nuclear power plant and how a group of Amateur Radio operators responded when

911 and cell service evaporated. The Hams established communication with Emergency Dispatch Centers, help shelters coordinate and more.

What would happen in La Crosse County if the "IT" arrives? There is no group of Amateurs prepared to help and authorities have not included Amateurs in any of their plans. Why?

Local Hams have a long list of excuses for why ARES/RACES won't work. One of many excuses is that nothing will happen except a once in a-lifetime flood.

Maybe a flood is La Crosse's only probable disaster.

La Crosse County Emergency Management and local first responders think there's more:

✓ Massive coronal mass ejection CME disrupts conventional communication systems

- ✓ Tornado
- ✓ Blizzard
- ✓ Ice storm
- ✓ Flood
- ✓ Large explosion, fire, chemicals
- ✓ Railway accident explosion, fire, chemicals)
- ✓ River accident explosion, fire, chemicals)

- ✓ 911 failure
- ✓ Power disruption
- ✓ Terrorist attack or civil disorder
- ✓ Search and rescue
- ✓ Landslide
- ✓ Earthquake Madrid Fault

Isn't it time to fulfill our obligation to Part 97 and train to help when **IT** happens?

## President's Frequency Modulation

By Kevin Holcomb, KC9ZGD

Greetings and happy Spring to every one! We have our first event under our belt, the St. Patrick's day parade. As we get our events started for the year, I ask that if you have not participated in any events for a while to please sign up for we could use the help and would be nice to work alongside our fellow hams.

An important note to mention is that ARES/RACES is up and running for storm spotting this year along with assisting the RARC. ARES/RACES helps us by covering liability issues such as someone getting hurt while volunteering.

Tom Skemp, Emergency Coordinator for La Crosse County ARES/RACES and I are working on being in compliance with the state. At the next few events such as the Storm Spotter training session Tuesday, April 5, in La Crosse, the MS walk April 23, our May 3 club meeting, and the Granddad Half Marathon May 7, we will have ARES/RACES applications available and I will be taking pictures for ID's. If you intend on participating in storm spotting and would like to be a part of ARES/RACES, I suggest that you contact me at one of the events or contact me for other arrangements so you can get signed up. The deadline for signing up and having an ID photo is the end of day May 7.

Get on the repeater! Our '97 machine is a great resource for emergencies and, now and then, you hear travelers on it asking for directions or just being sociable. Very importantly, it's a great gathering spot for us to just plain be social! I encourage others to participate in monitoring the 97 repeater. We have had a handful of people monitoring so when you call out, there is a good chance that someone will answer. If we had more people monitoring, then we can answer people as they travel through our area.

Now that the weather is getting nicer, I suggest that you look at what you are capable of doing with ham radio: do you have batteries, do you have a to go kit and is it ready for use and do you know what is all in it so you can be effective? We become more and more active in our hobby and now is the time to check everything so there are little to no issues when the time comes to use our equipment. Be prepared and get on the air!



Members of the Riverland Amateur Radio Club provided communications support for the annual La Crosse St. Patrick's Day Parade March 12. RARC members manning radios included: Dan Abts, AB9TS; Duane Cadmus, KD9AXP; Dan Helgeson; Kevin Holcomb, KC9ZGD; Dave Peters, KB9EWG; Bob Seaquist, W9LSE; Carl Thurston, KC9HDS; Bill Wood, KE9XQ; Larry Worthington, KC9HDP. Holcomb chaired the club's effort.

The club's next license testing will be 9 a.m. Sat. May 14, at the Church of Christ, 3506 28th St. South, La Crosse.

Register at least five days in advance with Roger Reader, KA9BKK, 608 783 0723 or [readers@centurytel.net](mailto:readers@centurytel.net).

## Calendar

### Sat. Apr. 2

➔ AES Superfest, 9 a.m. - 2 p.m., 9710 W. Good Hope Road, Milwaukee. PRS & Public Service Communications; Ham Radio & High Altitude Balloons; FSQ Fast Simple QSO

### Tue. Apr. 5

➔ **Riverland Amateur Radio Club meeting, 6:30 p.m., Mary-Crest Auditorium, Mayo Hospital, 700 West Ave. South. Storm spotter training.**

### Sat. Apr. 23

➔ Communications for La Crosse MS walk, 9 a.m., La Crosse Center.

### Sat. Apr. 30

➔ Madison Area Repeater Association HamFest, 8 a.m. - 1 p.m., Mandt Community Center, 400 Mandt Parkway, Stoughton.

## Riverland Amateur Radio Club

P.O. Box 621

Onalaska, Wis. 54650



President ..... Kevin Holcomb, KC9ZGD

Vice president..... Dan Abts, AB9TS

Treasurer..... Greg Miller, KA9FOZ

Secretary..... Bob Seaquist, W9LSE

Newsletter editor.. Bob Seaquist, W9LSE

Address correspondence regarding the club to Greg Miller, [ka9foz@gmail.com](mailto:ka9foz@gmail.com). This newsletter is sent by e mail to current and past RARC members and others. If you wish to change your address or subscription, e mail [W9LSE@arrl.net](mailto:W9LSE@arrl.net)

## RIVERLAND AMATEUR RADIO CLUB

On March 6, 1985, at 7:30 P.M., the regular monthly meeting of the Riverland Amateur Radio Club was called to order by President Craig Goldbeck. Minutes of the February meeting were approved as read from the Badger State Smoke Signals. The treasurer's report was approved.

Report from the Repeater Committee: Greg, KA9F0Z, and Nook, K9E60, report that along with Dick, K0JYB they visited the repeater on Friday, Feb. 8 and resoldered and reconnected some of the wiring that gotten bad over the years. No other problems to be reported.

Report from the Swapfest Committee: It was noted that John, W9MMP, has volunteered to serve on the Swapfest Committee.

Old Business: Rick, KV9U, reports there are ten people signed up to take the exam on Wed, March 13, to either upgrade or take the exam for the first time.

Tonight was the last night to turn in prefix totals for our annual prefix contest. No logs were brought in so we had no winner.

Other possible displays or activities for our Swapfest were discussed, such as a computer display or an operating station. Various ways of advertising the Swapfest were discussed.

The interest in Field Day has increased, so possible sites were discussed. Being surrounded by bluffs, several sites were brought up. A group will get together some weekend and check out different locations.

New Business: Questions were raised as to whether we should order another set of club patches. Only one patch remains. A motion was made that the last patch in stock be given to our guest from SRI LANKA, Feroz Ghouse, 4S7FG. The motion passed and Feroz was presented with the patch.

Tom, WB9BJQ, announced that he has acquired several model 28 Teletype parts and anyone looking for them should contact him.

It was brought up that the emergency power back up for the 37/97 repeater be tested twice a year. It was agreed that Wed. March 20, at 7:30 P.M. the repeater will be shut down for 2 hours. It was also agreed that the Repeater Committee would check the battery connections and put a load test on it before the test night.

Application for Special Service Club for our club has been completed and will be mailed in as soon as possible.

Our guest, Feroz Ghouse, has asked if anyone could help him locate someone in Chile for him, please talk to him after the meeting. There was an earthquake in a small village there where some friends are located and because the phone lines are down, he has asked Amateur Radio for assistance.

Total members present was 21. The meeting was adjourned at 8:30 P.M.

Respectfully submitted  
Greg A. Miller  
Secretary-Treasurer  
Riverland Amateur Radio Club

## Members present

Greg A. Miller	KA9F0Z
Craig A. Goldbeck	N9ETD
John Young	W9KAZ
William A. Kleinschmidt	KA9S0I
John Carroll	W9MMP
Mike Nelson	KB9RJ
Herman Ludvik	W9HJV
Bill Pike	K9FYZ
Dallas C. Miller	K9LEC
L. F. (Nook) Bentzen	K9E60
Bob Colleran	W9JLH
Ray Wakeen	WA9HHM
Ron Reed	KA9ISV
Rick Williams	KV9U
Steve Mrachek	N9CEY
Duane Fruachte	W9HWQ
Tom O'Brien	WB9BJQ
Art Osborn	W0JDC
Bruce Bjerstedt	K9CUT
Van Elston	WA9FIO
Gary Countryman	KA9NDF
Feroz Ghouse	4S7FG (guest)
Jerome Brokowsky	WA9UCZ (guest)

## Additional notes:

The club trailer is presently setting in my back yard. It is in very bad shape. All club members are welcome to stop by and see if there is anything they might have to restore it.

All T.S.R.A. past members please remember your 1985 R.A.R.C dues are due in May.

## From the ARNS Bulletin

Wisdom keeps some people silent;  
with others it is just a soft 807.  
What would we be like if we took  
all the advice we hear on the Ham  
bands?  
Did you hear about the CBer who  
had blood poisoning? He bit his tongue.



# Why become a Ham?

By Carl Thurston, KC9HDS

Why become a Ham? Why indeed. There are as many reasons for being a Ham as there are Hams. Many of the older Hams came to Amateur Radio as the result of listening to broadcast radio programs that featured heroic characters that used radio to communicate sometime encoded messages to them requiring a secret decoder ring to decipher those messages. As a result they became bitten by the bug. Some Hams came to this hobby because of a father, uncle, or older sibling who, in the dark of night when the bands were open, introduced them to the wonders of trans global communication.

Many others were radio operators in one of the branches of the military and when they returned to civilian life, continued to operate on the Amateur bands. There was an especially large group of Hams that came to this hobby this way that served during World War II, and it has been these Hams that have formed the backbone of the hobby for many years. Their experience, knowledge, and encouragement have done much to keep this hobby going.

Many other Hams came to Amateur Radio via academia, either directly or indirectly as professionals of various walks of life, such as members of the medical field, legal or law enforcement, as we as the many diverse areas of education and engineering professions. Added to that list more recently are those of the ever growing area of high

technology. There is also a large group of Hams that do not come from any precise related profession, occupation, or educational group. These Hams may make up the largest group of Hams and are probably the most difficult a pin down as to why they have become Hams. As can be seen there are many different directions that individuals take on their way to becoming Hams. This sort of explains where they came from, but not why.

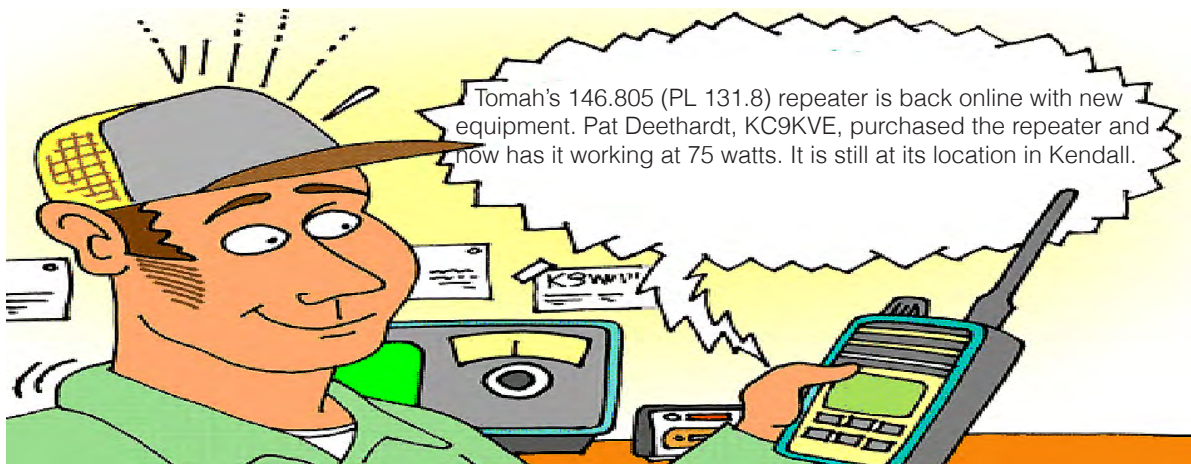
The "whys" of being a Ham are as diverse as the backgrounds of those who become Hams. It is fun to speculate about these things, and maybe the word "fun" captures the main reason for the involvement of many Hams. It is *fun* to be a Ham. The on the air camaraderie is addictive, as are the many opportunities to meet and converse with other Hams at the various events sponsored by Ham clubs whether it is classes for Amateur Radio licensing, general electronics, or learning how to build an antenna, power supply, or transmitter. The key is often the furtherance and perfecting of the art of Amateur Radio. Many of the older Hams get a special delight in helping younger Hams to succeed in improving their knowledge, their equipment, or their shack. All of these things are fine examples of things that Hams do, but it still doesn't answer the "why."

Why? Why do we need to become Hams? In this age of fast internet communications, when one can send



Facebook, Twitter, MySpace or e mail messages around the world to anyone caring to read them, it is hard to imagine why there is a need for Amateur Radio or for Hams. Surely anyone can communicate with anyone anytime via the internet, so what do we need Amateur Radio for? Is it just an arcane appendage of a bygone era? Is it just another means for another group like the Odd Fellows, the Masons or the Knights of Columbus to exist? Is there a real reason for their continuance?

To paraphrase Sherlock Holmes: After all of the other possible reasons have been striped away then what ever is left, no matter how improbable, must be the truth. If there is no other reason, the services rendered by the Amateur Radio community in times of trouble shine out as the real reason for their existence. If you don't believe this, just ask those who were helped out during a flood or a tornado. Storm Spotting is one such service that is easy to learn, fun to do, and of great help to everyone. If you haven't done so yet, go to the next Storm Spotter class. It is why we are.



## Jim Wilson, N7JW, still in radio

There's a name common to early hand held radios and present day CB antennas, not to mention many electronic devices: Wilson. And radio legend Jim Wilson, N7JW, is still inventing and still starting companies.

Maybe you've heard of cell-phone amplifiers from his current company, Wilson Amplifiers.

Wilson has been a ham for 61 years though his early on electronic work was with atom bombs at the government's Nevada test site. He wanted to be his own boss so in 1964 started building CB antennas in his garage. The business exploded so in 1968 he borrowed 2,000, which was a lot of money at the time, and jump started the garage business. He formed a relationship with Yaesu that would continue for years with Yaesu building components for his equipment and even building the basis of the Wilson hand held two way radios. Before long the Wilson was selling 20,000 base station antennas a month from Wilson electronics.

Though Wilson's little Yaesu built handy talkies were an amateur radio success it was the business radio business that made money. "You can't make a living selling for amateur radio," Wilson told Hams at the Dixie Amateur Radio Club in St. George, Utah. In 1979 he sold his business to Regency which later went bankrupt.

Wilson jokes that he's had many successful businesses that



went broke after he sold them.

He got into satellite television antennas and receivers early on when it was 4 Ghz. He eventually sold that enterprise to Cincinnati Microwave which subsequently went bust. Wilson explained that Cincinnati Microwave involved many Proctor & Gamble people and when they took it over they brought in the manager who would be managing a pampers plant in Japan.

A restless entrepreneur, Wilson decided to go back into the CB antenna business developing a very high Q antenna, "It's still at truck stops as matter of fact and it has not changed at all in 16 years," said Wilson.

The cell phone booster business started after his most recent retirement. Wilson said his wife had a stroke and he was concerned for her safety. In Southern Utah where he lives cell service is spotty so he designed a cell phone booster. He sold the business to Sorenson and retired. Except now he's making a device called Cargoglide which is an extender for pickup truck beds.

He reminded the Hams that he, too, is still a Ham. With a friend, Wilson owns some desert land where they have an antenna farm including an eight element 160 meter vertical array.

Wilson made his presentation Feb. 17 to the Dixie Amateur Radio Club, St. George, Utah.

## Are you dreaming of Field Day?

The imagination is one of the greatest tools in anyone's toolbox. Sitting here in dreary March with gray skies, cold temperatures and snow showers in the forecasts, it is easy to wistfully long for the cozy keeping room just off the kitchen, one filled with the wonderful aromas of comfort foods being prepared while a warm fire crackles to ward off the cold. If you are an Amateur, it is also as easy to fill your mind with thoughts of the warmth of the June summer sun, while you remember the smells of the great outdoors and hear in your mind's eye the sounds of last year's ARRL Field Day.

Field Day is always a different experience. Set ups change... Propagation changes... Participants come and go... Equipment from last year may be replaced with the next generation of gear... The tree used to support the 75 meter inverted vee last year may have come down for firewood or some other purpose.

That's one of the beauties of the Amateur Radio we are always in some way given the opportunity to embrace change.

Adapting to those constant changes is where your imagination really comes into play for Field Day. That state of flux always provides everyone participating with the opportunity to share their knowledge, as well as learn from others. After all, once the last QSO is recorded and the last sweep to clean up the site is complete, it is really about the people those we worked with during those magical hours and those we contacted during the brief weekend.

There are two rule additions for Field Day 2016 both affecting Bonus Points available for participants. Groups or clubs that are participating in Field Day together from a site that is open to the public can earn a 100 point bonus by actively utilizing one of the recognized Social Media platforms such as Face

book, Twitter or Instagram to engage the public in their Field Day activity.

The second rule addition allows groups and clubs operating as Class A in the field to earn a 100- point bonus by having a safety officer for their operation that ensures its overall safe operation. To earn this bonus, the safety officer must complete a check-list of key safety issues to ensure they have been addressed.

Dream a bit, plan a bit and be sure to be a part of our Field Day!





## Club Executive Board

**Tuesday, March 15**

*Present: President Kevin Holcomb, KC9ZGD; Vice President Dan Abts, AB9TS; Treasurer Greg Miller, KA9FOZ; Secretary Bob Seaquist, W9LSE; Carl Thurston, KC9HDS; Dan Helgeson.*

The April club meeting will be Skywarn training at 6:30 p.m. Tuesday, April 5, Franciscan Healthcare.

The club has 20 paid memberships.

The RARC again earned Special Service Club certification from the ARRL.

The RARC plans to have a letter of welcome introducing new members to club benefits.

The club is telling area high school and middle school technology teachers about the RARC and the ARRL. We are asking teachers to help recruit students interested in technology. Teachers will learn about the free of expense ARRL Summer Institute for Teachers.

The club is still looking for meeting locations that have radio contact ability and where club members may bring

food. Two Onalaska schools are available for a 10 or 15 charge. The La Crosse Family Y is being checked as are the La Crosse First Congregational Church and City of La Crosse facilities.

Should the club have a fundraiser selling military grade flashlights? It's under consideration.

Bill Wood, KE9XQ, will represent the club April 1 for our Rotary Lights participation.

At its April 17 meeting the board will discuss what committees the club needs and to suggest chairs for those committees. A proposal will be brought to the Tuesday, May 3 meeting for discussion. It is to have club business conducted by a large executive board, reserving general meetings for programs and socializing.

Executive Board activity will be better communicated to members. A notice of board agenda items will be e mailed to members prior to board meetings. Members are invited to attend board

meetings on the third Tuesday, starting at 5:45 p.m. at the King Street Kitchen in La Crosse.

La Crosse County ARES/RACES is stepping up operations. It hopes to use its protocol at events like the MS Walk and Skywarn. La Crosse County has hi vis vests that may be used. The County will send a mailing to all La Crosse County Hams inviting them to participate. Hams will be given opportunities to document their training and skill sets.

Will the club have official club shirts and club communication vests? Board members will address the question at the April 19 board meeting

The club's swapfest, will be even better this year according to Miller. It will be Saturday, Aug. 13, at the Omni Center in Onalaska. Growth requires a doubling of space for our event which gives more room for tables, more accessibility and also a nice place to sit, eat and socialize. Miller said there will be great door prizes too.

## A a flash of light leads to a battery of ideas

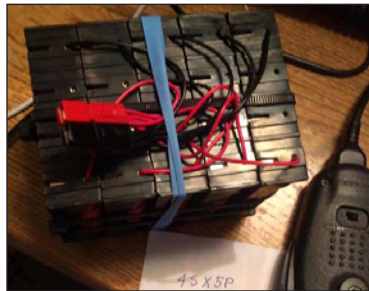
By Carl Thurston, KC9HDS

Ideas and inventions often come unexpectedly like recently when I was gazing at my bright, tactical LED flashlight. I was so impressed with it that I did some digging to see what else I could come up with. The result were these 18650 3.7v 9800 mAh cells. I ordered a bunch to experiment with and before I knew it I was building a battery pack.

Powering a radio has challenges when you're operating portable. I've been using a nice, little 4S4P A123 Battery Pack which has a nominal voltage of 13.2 volts and a total capacity of 5.0 Ah. It is capable enough to power a 100 W rig for long periods of operation. It has done very well for me at Field Day and when we've been at the Trempealeau Wildlife Refuge. I wanted to do better.

My homemade battery is working well. It has about nine times the output of a 7Ah sealed lead acid battery with less size and weight. The cost was similar to the cost of a 7Ah sealed lead acid battery without the drainage drawbacks of that system and it is much cheaper than the Buddipole pack. So far it puts out about 15v and runs my FT 897 just fine. I'm enthused enough that I have more cells, cases, and charging equipment on order.

Specifically, the battery pack consists of 20 type 18650 Li-Ion cells each delivering 3.7 v @ 9800 mAh the same type



used in the Tesla S car, which has more than 7,000 of these cells. By placing them in battery cases that each hold four cells in series you achieve an output voltage of roughly 15v DC. By putting together five cases, each with four cells, the cases being in parallel, an output current of  $9800 \text{ mAh} \times 5 = 49000 \text{ mAh}$  or 49 Ah. That's seven times more than most sealed lead acid batteries can do and with less space, far less weight and no worries about draining the cells to zero.

This is still a work in progress. I need to incorporate a thermal fuse to prevent a runaway condition but that is a fairly simple thing to do.

The original set of 20 cells cost \$36 plus another \$10 for the cases totaling just under \$50 including the zip ties and Anderson Power Pole connectors. I went back to that source for more cells and he jacked up the price so I found a different source where I ordered 50 cells for \$60. I also ordered more cases and I also ordered a charging system.

I still use the Buddipole 4S4P. It is a good battery pack, but this new one is even smaller and has more potential. The Buddipole pack has a lot less service life than this pack does, so I'll continue to work with both and compare them; but pound for pound, dollar for dollar, and for total output, this prototypes has the Buddipole pack beat.