

The Rochester VHF Group

The VHF



Journal

Volume 61, Issue 8

Apr. 2010

The next regular meeting of the Rochester VHF Group will be Friday, Apr 9th, 2010, 7:30 PM

Spencerport Wesleyan Church  
2653 Nichols St., Spencerport

Map and directions in back

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**Topics:**

**An Introduction to VHF/UHF Antennas**

## The Chairman Speaks! Dave Hallidy K2DH

**Groupers:** As I mentioned last month, the upgrade to our RVHFG website is progressing nicely! If you haven't taken the time to look at it, Please Do! I think you'll be very pleasantly surprised. You can find it at:

<http://clients.ibarmedia.com/rvhfg/beta/forum/1>. There are just all kinds of stuff that Nick has added since last month, and he (we the BoD) are looking for your input and comments. We've set a goal of having the site live by the time the Rochester Hamfest occurs, so that we may "strut our stuff" at the 'fest!

Speaking of the Hamfest, don't forget- this year, for the second year in a row, the Rochester Hamfest will be held at the Barnard Firemen's Carnival Field, and the date is June 5<sup>th</sup>. As it was last year, this year's Hamfest promises to be really fine - I'm told there will even be some improvements over last year's effort! Please plan on coming out to support the RARA and the Hamfest, the RVHFG and all the other local Rochester amateur radio clubs.

Last month's RVHFG meeting was again well-attended, and I thank all of you who came out to hear my talk on ...

Continued....

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# **The Chairman Speaks! continued...**

... Software Defined Radios. I've distributed my presentation to the membership via the club reflector- if you want to see it but didn't get it, let me know and I'll be happy to forward you a copy.

Our Vice-Chairman John WB2BYP, will speak about this month's presentation in his column, elsewhere in this issue of the Journal.

It's that time again! Time for RVHFG Elections! Your BoD met on Sunday March 21 to hash out the issue of finding people to fill the vacancies this year, and I'm pleased to announce that we have a slate of officers for next year! For Chairman, Dave Hallidy K2DH has agreed to run again. For Vice-Chairman, John Stevens WB2BYP has also agreed to serve a second term. For Secretary, Tom Jennings KV2X (also our Journal Editor) has agreed to run, and for the position of Even Year Director, Bob Nezelek W2CNS has agreed to run. Now, mind you, we welcome nominations from the floor on election night (our May meeting), so if you or someone you know wants to help serve this fine organization, please feel free to be nominated or nominate another. "New blood" is always good for the club operations!

I'll mention again that the combined RVHFG/RDXA banquet will be held on April 24<sup>th</sup>, 2010 at Nick's Sea Breeze Inn on Culver Road, across from the Sea Breeze Amusement Park. The banquet will be a lunch affair, from 1-4pm on that Saturday. There are no tickets being sold, it's a "pay as you go" affair- each attendee will be responsible for their own bill. The lunch buffet at Nick's will run a maximum of \$12.99 for Chicken French along with all the other buffet items Nick serves (many). Drinks are extra, as are taxes and gratuity. The cash bar will be open for those who want alcoholic beverages, but for those who do not, sodas and juices are also available. Expect the total (less beverages) to run around \$18. The clubs will be presenting a few awards, but most of all this is intended to be a good time with lots of fellowship and camaraderie. Please plan to attend. And if you do plan to attend, we need a final count by April 17<sup>th</sup>, in order to give Nick time to prepare the place for us.

The next meeting of the RVHFG will be held at 7:30pm on Friday April 9<sup>th</sup>, 2010 at the Spencerport Wesleyan Church on Rte 31 in Spencerport (see the back page of this newsletter for directions if you haven't been there before).

PLEASE plan on attending the meeting this month- the club is its members, and it's only as good as YOU make it- come, tell us what you like/don't like, and your BoD will listen and work to make the club greater than it already is. I know you'll enjoy what we have for you this month!

73

Dave Hallidy K2DH

## **Secretary Report**

**Judy Stonehill, N2KXS**

**Rochester VHF Group Meeting Minutes for March 12, 2010**

The general meeting, held at the Spencerport Wesleyan Church, was convened at 1935 local, by the Chairman, Dave, K2DH, who asked the attendees to tell the group what ham-related activities they had been involved in over the past month.

Dave started off the discussion by telling the group about his work on repairing the damage to the feedline on his 1296 EME station. The other attendees also talked about their various ham projects and activities. Bill, K2TER, hopes to have his rover up and running with 10 bands in time to display it at the Rochester Hamfest. John, WB2BYP, told the group about upcoming RVHFG programs and asked that members give him suggestions for future meeting topics.

Attendees were W3OAB, K2MTH, WB2QCJ, WO2P, WB2BYP, K2TER, K2MPE, AF2K, WB2GFZ, W2CNS, K2OS, AB2YI, W2UAD, KV2X, K2DH, N2KXS, and guest Ed Braiman.

### **OLD BUSINESS**

Fred, WO2P, moved that the minutes of the February 2010 meeting be accepted as printed in the Journal. Bill, K2TER, seconded the motion and the motion was passed by the attendees.

John, WB2BYP, moved that the February Treasurer's report be accepted as printed in the Journal. Fred, WO2P, seconded the motion which was then passed by the attendees.

Dave, K2DH, reported that the beacons are still off the air. He is having difficulty making contact with Larry, N2MLH.

### **NEW BUSINESS**

The Drumlins Hamfest (Newark) is coming up on April 17<sup>th</sup>. Fred, WO2P, reminded the group that the Buffalo Hamfest will be this Sunday at the Ishmalia Center.

The joint RDXA / RVHFG banquet will be held on Saturday, April 24<sup>th</sup> at Nick's Sea Breeze Inn from 1:00 PM to 4:PM. The restaurant will not be open to the general public. Only our two groups will be there. The total cost per person will be approximately \$18 including tax and gratuity and will be a lunch buffet format with a cash bar. Those who will be attending should inform someone on the RDXA BoD or the RVHFG BoD so that the head count will be known in advance. Payment, though, should be made to Nick on the day of the banquet. Dave took a count of those at the meeting who will be attending.

Bill, K2TER, told the group that Nick Ibarluzea, the web site developer for the RVHFG, is fully recovered from his accident, has been putting the RVHFG web site together, and is ready to take input from the members. Bill outlined the areas of the website that Nick has completed including the home page, a "join now" page, the RVHFG history, announcements, the RVHFG Journal page, library, and article upload. He is working on "Who's listening", photos, "Contact us", the site map, and an administration interface. The BoD would like to have the website ready in time for "rollout" at the Rochester hamfest.

Tom Jennings asked for Journal input. Dave emphasized that Tom is doing an outstanding job in the creation of the Journal and urged members to send him articles or other input to be published. Examples might be ham-related projects that members are working on, photos, or schematics.

K2MPE moved to adjourn. K2TER seconded the motion. The meeting was adjourned at 2016.

### **Program**

Dave, K2DH, gave a very interesting, informative presentation on Software Defined Radios and their advantages.

**Rochester VHF Group  
Treasurer's Report – March 2010**

**CHECKING ACCOUNT**

<b><u>Previous Balance</u></b> (as of 2/28/10):	<b>\$ 1,985.26</b>
Income:	
Membership dues	\$ 20.00
Donations for refreshments	23.90
Expenses:	\$ 0.00
 <b><u>Current Balance</u></b>	 <b>\$ 2,029.16</b>

*Respectfully submitted,  
Judy Stonehill, N2KXS, Treasurer*

**The Vice Report February 2010**

**April 2010**

Coming up on Friday April 9th, we have been planning for a visit by Dale and Mickie Clement, AF1T and W1MKY for an entertaining talk called “**An Introduction to VHF/UHF Antennas**”. Dale and Mickie have been doing this presentation for several of the events on the east coast such as Microwave Update, The East Coast VHF-UHF Conference and the Nearfest Hamfest. They have had a surprising call from museums and planetariums in their area due to the reaction from seasoned VHF'rs as well as new hams and would be hams.

Dale and Mickie are well known VHF-UHF-SHF operators, active during most of the contests from Henniker NH. Recently they have been making the yearly DXpedition to Block Island and Martha's Vineyard to operate the 10 GHz and up contest.

Well, here's the complication that has come up. Dale's mother has recently required special care so they have had to put their weekend energy into the inevitable move from home to assisted care facility for her. Dale made a suggestion that they had used for a Washington state based ham club that heard about their presentation via one of the conferences, which was to video tape the talk and forward it on a DVD. So as a next-best to a visit from Dale and Mickie, we have the video. This will be a little experiment for us, so please come and give us your reactions as to how this works.

Dale has a very dry wit. Be prepared! Come to the meeting and enjoy learning more, and see the demonstration!

**Upcoming Meetings**

Also in the agenda for speakers in the spring months is **Jeff Ach W2FU**, coming in to update us on advances in wireless rotor controls and other new stuff of interest to the HF/VHF/UHF/SHF operator.

**Bill Rogers K2TER** is doing a marvelous job bringing his ENG van to life as the Ultimate Rover, and will give us a presentation as well as a live demonstration. How about a rover van with a 50 ft pneumatic mast, built in generator and operating desk? This is one cool (yes...air conditioned too) rover.

I'm planning on an update in the near future with the progress on the **28 ft Dish at Area 26**, as well as a presentation on the DS Kennedy Company and some of the history of these antennas in national defense during the Cold War years. Last October Miss Gloria and I visited the Cohasset MA Historical society and had an informative visit with one of the original design engineers of these antennas, primarily used as tropo scatter links. There are only 9 of these antennas left in amateur hands worldwide that I know about, and another 8-9 in research facilities around the globe. A couple of 18' Kennedy's still exist, and a few more 60' and 84' Kennedy's still functioning as research "scopes". Stay tuned on this topic, I think Dave K2DH is working on a presentation on the Project Diana dish that is still up in the Ft Monmouth area.

As always, we need to know what you would like to see and hear at the Monthly meetings.

Please forward me any of your ideas, interests, criticisms or comments to:

wb2byp at arrl dot net

You know how to put that together don't you? We live in a world of spam robots...

Catch any one of the Board members or Directors on the air, on the Net, email (*or even at the upcoming combined RVHFG and RDXA Banquet on April 24<sup>th</sup>!*) or just give a call at 585-415-4973.

Our Monday Night Net and the Thursday Night Nets continue to be well attended. Check in and say hello! Continuing the tradition at 2100 local on 144.260 USB, check-ins recently have been from Al K2MPE, Ken W2UAD, Dave K2DH, Stan VA3ST, Doc AB2F, Al KA2EKI, Len KC2PCD, Joe KC2QZR, Ron KE2LW, Brent KC2QLJ, Terry KC2JKU, John W3OAB, Mark K2MTH, Bill KB2BLS, Mike WB2SQS, Sid K8ZES, Steve KC2URC, Dave AB2YI, Ken KA2LIM and John N2DCH. Almost everyone is horizontally polarized but check in regardless and see how your gear is working. It is a great opportunity to see "who is doing what to whom and with which".

We always go to 50.200 USB at 2130 local and there the check-ins have been equally good, with among others, Carl WA2GAI, Bob W2CNS, Steve VE3TFU, Dave K2DH, Al K2MPE, Ken W2UAD, Len KC2PCD, Al K2ERG, Stan VA3ST, Ron KE2LW and Mike WB2SQS. A great turnout!

If there is interest we generally go up to 432.100 USB. I've recently been re-converting over to a 28MHz IF based transverter and have benefited greatly from signal reports (good and honestly critical...but important) while things get ironed out. Many thanks to Ken W2UAD and others for their input. That's how it works. If you need help, ask.

Although it is at the same time as our 2M net, there is activity looking west into the Chicago land area on 432 on evenings. Steve N4PZ runs the net as follows:

*Hello Gang*

*The Monday night activity night is stuck, we have around 15 check-ins. Last night we had 16. Our best night was 22 many months ago. We are getting into the summer months and propagation will be improving. We are actively looking for stations in Ohio, KY, Nebraska and Minn. Please spread the word and send me the email address of any new contacts. Thanks from all of us for your efforts. We also try to get on nightly at 8 PM CDST when possible. There is someone there almost every night.*

*73 Steve Gross N4PZ / W9OJI*

One of the interesting things that transpired last month was that the Arecibo Observatory <http://www.naic.edu/> KP2AO activated on 432 EME for a couple of days, giving many stations a thrill of working a really big antenna (1000 ft) using much smaller antennas, more like the size utilized on tropo or satellite operations. I gave a listen for them using an extremely small antenna designed as a feed antenna for a larger dish, using two half wave antennas in phase over a ground plane (an EIA dual dipole feed). I heard them briefly, even with that low a gain antenna. Bob W2CNS was on also with a couple of yagis in the middle of his 2M EME array, and has some decent recordings. I'll see if we can bring these to the upcoming meeting for demonstration. They will again be active during April. Note that an elevated antenna such as a satellite antenna is all that is necessary to work them. SWL'ing can even be done with smaller systems. Here is an email string from the KP4AO team:

*Message: 10*

*Date: Tue, 23 Mar 2010 10:45:32 -0400*

*From: "ANGEL WP4G" <wp4g@arrl.net>*

*To: <moon-net@list-serv.davidv.net>*

*Subject: [Moon-net] KP4AO*

*Message-ID: <013D96E6E0F146A093A9A29A2D74DB92@SPACE>*

*Content-Type: text/plain; charset="iso-8859-1"*

*Hello to all, Thanks for all the good words and advice you are showing. I will pass them to Angel WP3R and Pedro NP4A. Let me remark how outstanding signals are from this end. Being active on HF too, the pile up is no different than any major pile up on HF. The operating conditions for pile up handling are not the best. At least for these two tests , we operate standup and with no earphones. Yesterday TX to RX was done with a PC , last Friday was completely manual with a mechanical switch and was not easy to do. The space is very limited because we where operating right at the waveguide transition to coax in a close space. For the official activity there will be much better conditions. Yesterday we had to stop for a few minutes to unwrap the platform because was getting to the limit rotation and start time was a bit delayed due to some finals requests from the AO direction. The JT65 transmission was made for test only and the RX screen was so overloaded that the rx level jumps from +1 to +25. The PC used at the moment took for ever to decode.... The split operation provide a more smooth operation, but there was a lot of AO employees that wanted to hear the moon echoes (that's why we use speaker only) that we had to check our own frequency often. Next month in the official activity I think things will be a bit more "scheduled". Congratulations to all stations that get thru the pile up and see you all in the moon next month. 73 wp4g*

Ken KA2LIM writes in again that the Grid Square Limo Team is sponsoring an FM award during the upcoming June Contest as follows:

### **FM SIMPLEX CHALLENGE**

**Sponsored by**

**The KA2LIM Contest Group**

**A contest within the ARRL June VHF QSO Party**

**open to anyone and everyone**

**1. Object:** To work as many amateur stations in as many different grid squares as possible using FM simplex on 146, 223 and 440 Mhz.

**2. Date and Contest Period:** (June 12-14 2010) **3-4 PM** and **7-8 PM** (local time both days)

### **3. Entry Category:**

#### **3.1. Single Operator.**

### **4. Exchange: Call sign and Grid-square locator**

### **5. Scoring:**

#### **5.1. QSO points:**

**5.1.1.** Count one point for each complete 146 FM MHZ QSO.

**5.1.2.** Count two points for each 223 or 440 FM MHZ QSO.

Suggested operating frequencies: 2 Meters 146.55,

1 ¼ Meters 223.500, 70CM 446.000

**5.2. Multiplier:** The total number of different grid squares worked per bands. Each grid square counts as one multiplier on each band it is worked.

**5.3. Final score:** Multiply the total number of QSO points from all the bands operated by the total number of multipliers for final score.

### **6. Reporting:**

**6.1** Electronic submissions may be emailed to ka2lim@stny.rr.com and hand-written logs mailed to

FM Simplex, 516 Pine Valley Rd. Pine Valley, NY 14872

**(Hand-written log pages downloadable from the ARRL website)**

**6.2.** Entries that have been electronically generated must submit their log file in the Cabrillo file format.

**\* Suggested logging programs:** VHF28 by N3FJP [www.n3fjp.com](http://www.n3fjp.com) or GenLog by W3KM (free) [www.qsl.net/w3km](http://www.qsl.net/w3km)

Paper printouts of electronic files are not acceptable substitutes.

**6.3. Entries must be emailed or postmarked no later than:**

**July 15, 2010.**

Information also available at [www.ka2lim.com](http://www.ka2lim.com)

Here's a short list of other things coming up:

June 12 - 14 ARRL June VHF QSO Party

<http://www.arrl.org/contests/calendar.html?year=2010>

July 17 - 18 CQWW VHF

<http://www.cq-amateur-radio.com>

August 7 - 8 ARRL UHF Contest

<http://www.arrl.org/contests/calendar.html?year=2010>

September 11 - 13 ARRL September VHF QSO Party

<http://www.arrl.org/contests/calendar.html?year=2010>

Here's the link to K9JK's 2010 Spring sprint announcement:

<http://groups.google.com/group/springsprints/web/2010-announcement-rules>

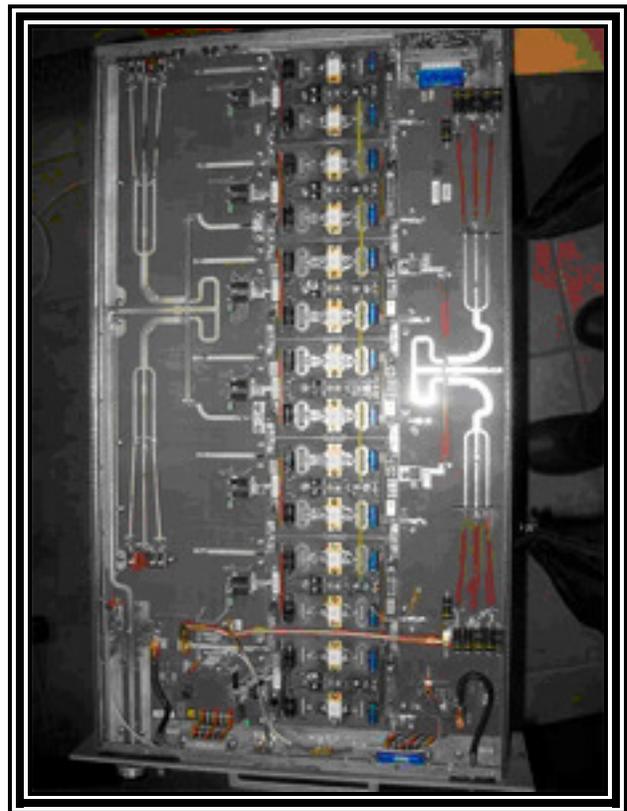
Springs Sprints - Start in April. Single band and run for 4 hours per night for 5 weeks  
Fall Sprints - Start in September. Single band and run for 4 hours per night for 5 weeks

Lastly, if you really crave big goo (1.5Kw) on 432 and insist on solid state, the following is available (my edits in parens):

Hello John,

(The) Telefunken (unit shown below is available and) costs 850 euro (includes 3 phase power supply) (Another vendor similar unit) R&S costs 700 euro, this one must be modified. You have to add 40 ATC capacitors then (it will) run full on 432 MHz (with) 10W in (for) 1500W out. You need power supply 30V 105A, bias 3V 7.5A and blowers for cooling. Look also at <http://users.skynet.be/fa387166/radioamateur.html>, if you have more questions please ask. I am looking what shipping to USA cost. I know it next week.

Best regards, Lins PA3CMC



# Rover Power Panel

David Muller, AB2YI

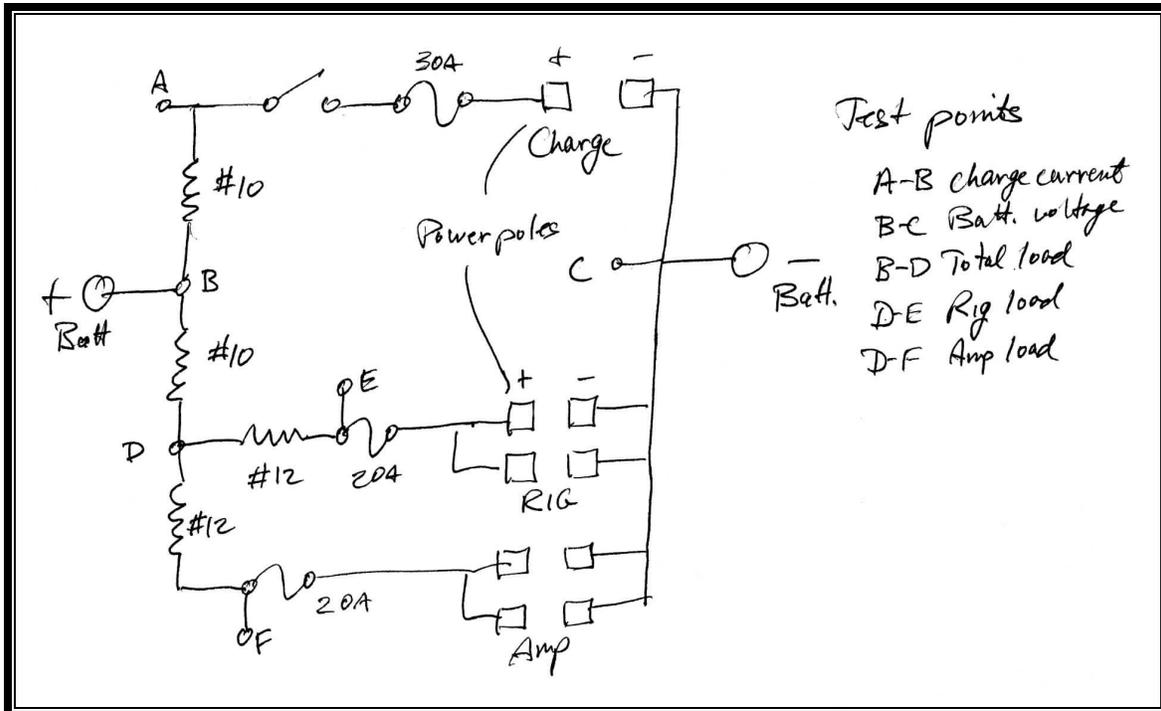
After picking up a couple brick amps for my simple FT-857D, 3-band rover, supplying power became more of an issue. The cost of the standard rig runners seemed a bit high to me, and I also wanted to be able to monitor current loads and voltage, so I decided to see what I could fit on a salvaged piece of 1/4" Plexiglas.

An article from January 1996 QST by Dean Poeth, K8TM, was very helpful in determining what shunt resistors could be made from standard wire. It turns out (from the copper wire tables) that 11.8" of #10 wire, or 7.4" of #12 equals .001 ohm, creating a voltage drop of 1 millivolt per amp, which works very nicely with a DVM to indicate a few milliamps to the maximum current of 30 amps or so that was expecting--or more! The #10 wire will handle 30 amp combined loads, and #12 is good for an individual rig or amp.

My intent was to install the panel on the 5/16" stud terminals of a 100 amp-hour deep-cycle battery I bought a year ago, and to see what the total load would be with rig and brick, and also what was being drawn from my car alternator during transmit and recovery. I wanted to provide Anderson power pole connectors for the rig, two bricks and an accessory, with fusing and individual current monitoring.

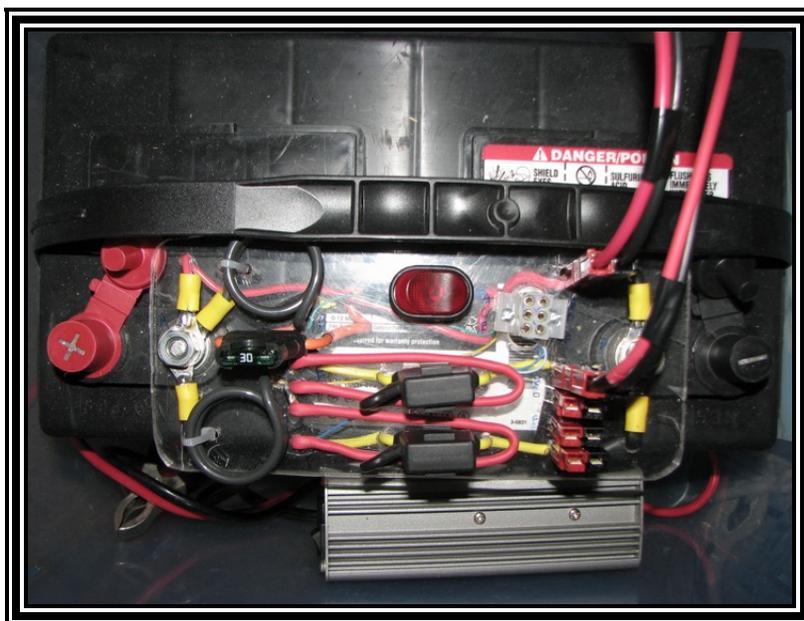
Since the bricks for 2 meters and 70 cm would not be transmitting at the same time, they could run off one shunt and fuse. And the rig could be on another shunt and fuse. (Each piece of equipment has its own fuses.) Then I would need one shunt for charge and one for total load. Test points would be run to a 6-connector female socket, and either a DVM or external display module plugged in for readout.

So the circuit looks like this:



The #10 shunts are wound as 1 inch coils, the #12 are 3" hairpins--that's what fit. Power poles are mounted on #12 solid copper through panel--which keeps them in place, but is not rigid. There is a small inverter in the container next to the battery.

For now, I've been content to connect two DVM's to check the rig and amp load at various drive and output levels. On the bench with dummy load and 13.8 volt supply, 150 watts on 2 meters is soon pulling 18-20 amps from the charging circuit. I will be checking it in the rover, but expect similar results.



**The Rover Power Panel**

While this is all routine DC circuitry, it's nice to know how the rover is working and to be able to change connections quickly, with a few dollars left over for something else.

David Muller, AB2YI

## Classified Listings

**For Sale or Swap:** Anyone have a need of 300-400w FAA AM-6154 144 & 222mhz. amp. Recently trouble-shot and modified, had a brief "on air time for test at 5w = 300w+ out on 120v primary. (Will do 120/240v). It requires T-R relay system. Can do more output-- you run where you want. Want info? Check out: [www.fairradio.com](http://www.fairradio.com). Their sale price is \$300+. Available to somebody in North East or possible meet ENY, WNY, CNY, or perhaps SNY. I have 1 each to part with. Swap, partial swap, or Sell. It is 70lbs to ship. B/O > \$300. + ship. AL [k2erg at arrl dot net](mailto:k2erg@arrl.net)

### For Sale by K2TER

#### IF Rigs:

See January 2000 QST "Hotwiring the TS-690" by Rus Healy K2UA for transverter mod docs.

These are the 3 radios mentioned

Kenwood TS-690SAT (2) – email for condition, IF filter choices, and price.

Kenwood TS-450S

Realistic HTX-100 (2) – with NJ2L transverter mod \$60 each

#### Amplifiers:

2304 MHz 60w amplifier module - \$100

3456 MHz Toshiba 20w Amplifier - \$60

5760 – Avantec 10W amplifier - \$110

Brand new in box HTX-100 - \$150 – unconverted

#### Transverters:

Built by DEM 2304-144 transverter - 1W \$375 firm

DEM 144-28 - 30W output \$250 firm

Microwave Modules 432-28 – 10W w/two LO frequencies - \$80

Rochester VHF Group 432-28 - \$50

10 GHz – Avantec 5W amplifier - \$150

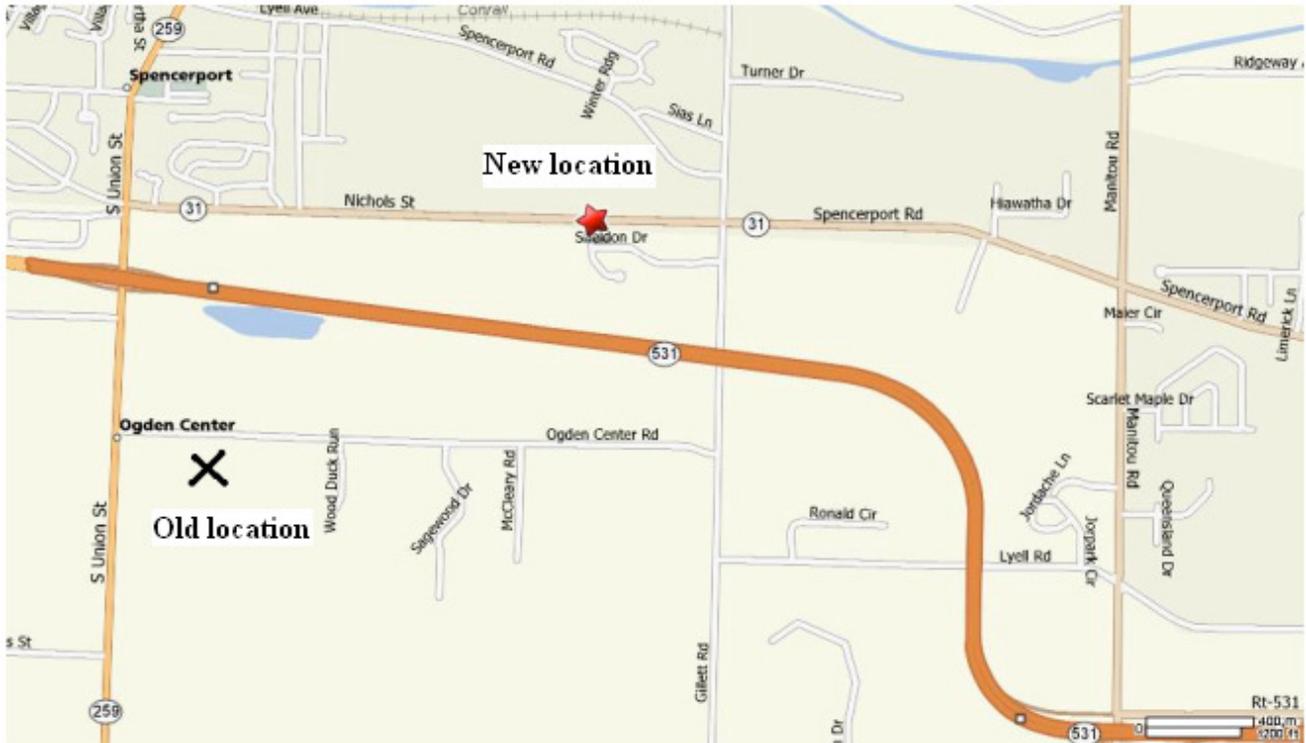
#### Accessories:

DEM Transverter interface for TS-850 - \$45

2 - 22' Military crank up towers – call for detail

If interested, please email Bill Rogers, K2TER at [k2ter@rochester.rr.com](mailto:k2ter@rochester.rr.com)

# Meeting Location and Directions



**Spencerport Wesleyan Church on 2653 Nichols St. (actually Hwy. 31).**

**Directions from Rochester:**

**531W exit RT. to 259N**

**259N turn Rt. on 31E (first Rt. at traffic light)**

**Look for Spencerport Schools Bus Garage on left**

**Take first Rt. on Sheldon at A-framed church, park in rear lot.**

**Enter gray metal door under fire escape.**