



THE PRINTED CIRCUIT

JUNE 2020

By: **The Southwest Iowa
Amateur Radio Club**

a monthly newsletter all things ham radio



Hello fellow hams! Hope you all are doing well. This month is FIELD DAY!!! I'm really excited and looking forward to it, as I am sure a lot of you are too. Hopefully everything will be back to normal by then.

As of the time I am writing this, a note to let all know, there will be testing in Omaha on the 26th of May at 6:30 P.M. at the Red Cross Building just off of 84th and Center st.

This newsletter is very new so I am looking for input on layout, what to include, and so on. I would like to talk to people and maybe do interviews each month of members and how long they have been ham operators, what equipment they have, their favorite bands to talk on, and any other info that they would like to share.

REPEATER UPDATE: by Paul WB0GXD

PHASE 4 – REBUILD REMOTE RECEIVER SITE EQUIPMENT AND RE-INSTALL

1. Merge Spec Com 146.22 receiver, GLB preselector, and UHF link transmitter
 - a. Determine best solution to co-locate this equipment onto one chassis
 - a.i. Accommodate link CW IDer and PTT disable switch
 - a.ii. Try to incorporate a local speaker
2. Test 146.22 receiver through to UHF link transmit out

- a. Confirm signal received on 146.22 causes link to transmit
 - b. Adjust audio for 3KHz deviation through to link output
 - c. Adjust link CW IDer to 600 to 800 Hz deviation
3. Confirm and record link transmitter power out
 - a. Should be approximately 3 to 4 watts
 4. Re-install remote receiver / link transmitter chassis at IWCC site
 - a. Clean up rack wiring as needed
 - b. Confirm that there are antenna surge protectors on both 2 meter antenna and link antennas
 - b.i. Both the 220 MHz and tri-band antennas
 - b.i.1. Assumes that the tri-band antenna has been installed

PHASE 5 – RE-INSTALL UHF LINK RECEIVER AT SIMMS SITE

Install UHF link receiver at SIMMS site

Connect to existing tri-band antenna. Connect COR out and audio out to LDG voter channel #2

Adjust audio chain – Test tone is 1 KHz tone at 3 KHz deviation

Voter channel 2 input levels per LDG manual

Audio level – Test tone from receiver

Noise level – receiver audio unskelched

Use oscilloscope in “invert and add” mode to balance voter channel input.



Here is the progress on the repeater. Phase 4 is being completed at this time.

FIELD DAY

Field Day is an annual amateur radio exercise widely sponsored by the ARRL organizations encouraging emergency communications preparedness among amateur radio operators. In the United States, it is typically the largest single emergency preparedness exercise in the country, with over 30,000 operators participating each year. Field Day is always the fourth full weekend of June, beginning at 18:00 UTC Saturday and running through 20:59 UTC Sunday.

Since the first ARRL Field Day in 1933, radio amateurs throughout North America have practiced the rapid deployment of radio communications equipment in environments ranging from operations under tents in remote areas to operations inside Emergency Operations Centers (EOCs). Operations using emergency and alternative power sources are highly encouraged, since electricity and other public infrastructures are often among the first to fail during a natural disaster or severe weather.

To determine the effectiveness of the exercise and of each participant's operations, there is an integrated competitive component, and many clubs also engage in concurrent leisure activities (e.g., camping, cookouts). Operations typically last a

continuous twenty-four hours, requiring scheduled relief operators to keep stations on the air. Additional contest points are awarded for experimenting with unusual modes, making contacts via satellite, and involving youth in the activity.

Most stations are set up outdoors and use emergency power sources, such as generators, solar panels, wind turbines, and batteries. Creativity reigns when it comes to power sources! Over the years, Field Day's contest-like nature has led to plenty of good-natured competition among clubs and groups. Field Day stations range from simple to elaborate. If a real disaster were to strike, stations such as these could be set up quickly wherever needed, without having to rely on commercial power. Field Day started out as a way to publicly demonstrate ham radio's ability to operate "in the field" and "off the grid." Portable gear in tow, hams take to the hills, forests, campsites, parking lots and even emergency operations centers or vans to take part. (by Paul WB0GXD, Rick KD0WDP, ARRL, and Wikipedia)

CLUB OFFICERS

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CLUB MEMBERSHIP

Membership in the club is open to all interested parties. Dues are \$15 per calendar year for adults and \$7.50 for students. From 1980s to 2012 we mailed out the Printed Circuit newsletter, but now everything's on this site. (Haven't figured out a GOOD way to charge 'members' for access.) The .82 repeater has always been free to all. If you are interested in joining please contact any of our members or Membership Chairman, WA0ZQG.

NEW PRODUCTS

by Rick, KD0WDP

I have a couple of new things that I want to share with everyone. These are in development and testing right now and should be available within the next 60 days for purchase.

My good friends at Yellowjacket Antennas are building custom Jpole antennas, and have 2 new versions available.

The first is a standard Jpole which will be tuned specifically to 146.00 on 2 meters and has an SWR of 1.2:1 or less. These are awesome antennas and I am currently using one of these myself.

The second is really exciting. Its a totally waterproof, portable, lightweight Jpole antenna that can be mounted absolutely anywhere. You can even throw a rope in a tree, attach it to the eyelet, and hoist it up. These are also tuned and SWR is around the same as the other. They are called the **Yellowjacket Portable Antennas.**

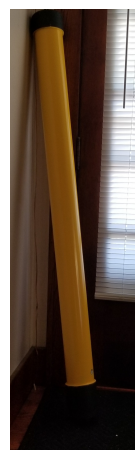
Pricing has yet to be determined but should be announced in the next newsletter. They can do turnaround in 2 days for a complete build for your needs. Let me know what you think

Also coming will be custom radio cases/holsters that have the operators callsign on them.

J-POLE



YELLOWJACKET



ITEMS FOR SALE OR WANTED

1. YAESU FT-847 all band, all mode
This radio has four (4) connectors
on the back. HF, 6M, 2M, and 440
2. YAESU FT-800 matching p/s
- ⋮
3. ICOM IC-7000 all band, all mode
color display, incl box, mike, and manual
- ⋮
4. ICOM IC-756 Pro II
- ⋮
5. XIEGU X-108 G HF SDR QRP 20W
- ⋮
6. MFJ 259 analyzer

In search of (ISO): *a Morse code key or paddle.*
A really old one. One that you can hear the steam
engine on the key I'm looking for.

Finally, HRO, otherwise known as Ham Radio Outlet, is looking for a new city to build a store in. It would be awesome to have one here in the Omaha Metro Area. You can vote for Omaha by going here www.hamradio.com/newstore and filling out the page.

I have a few surprises in the upcoming newsletters including some interviews that I believe everyone will find interesting.

Til then

73s

Rick