



The Wireless

June 2016



Next Meeting:

Tuesday, June 21, at 7:00pm
Garden City Presbyterian Church
1841 Middlebelt Rd.
(2 blocks south of Ford)
Garden City, MI 48135

This will be our last meeting before Field Day,
and our last meeting before summer break,
so be sure you don't miss it!

Amateur Radio Field Day 2016

Rich Zarczynski, AC8FJ

(Editor's Note: This is a repeat of portions of Rich's article from last month, as we really want to encourage you to come to Field Day. -df)

Sponsored by the American Radio Relay League (ARRL), Field Day is the most popular and fun on-the-air event held across the U.S. and Canada with over 45,000 participants. Radio amateurs will gather with their clubs, groups, or simply with friends to operate from thousands of locations.

The Garden City Amateur Radio Club (GCARC) will demonstrate our value and effectiveness to work reliably in any condition and from almost any location in setting up a remote emergency communications network. This non-stop 24 hour radio will occur on Saturday and Sunday, June 25th and 26th at the BSA Troop 1241 Cabin located at 1524 Middlebelt Road in Garden

City. Stop by with your family and see your fellow ham operators in action.

All currently licensed amateur radio operators are welcome to join in operating from multiple stations. We will be making as many contacts as possible with other operators over different bands on the airwaves. Other ongoing activities during this time include:

- (1) The club Volunteer Examiners (VE) team will conduct testing onsite for the Technician, General and Extra Class license privileges to those who wish to earn or amateurs who intend to upgrade their license classification on Saturday, from 3:00 – 5:00 p.m.
- (2) Garden City Boy Scout Troops #740 and #1241 will be camping onsite providing meals and support to our amateurs.



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Small Projects – Part I

The series of articles is a collection of “short stories” about small projects I’ve worked on over the last year or so. None of the projects are worthy of an entire article by themselves, but I thought that together they might fill up one Wireless-worth of writing. I hope you enjoy them, and perhaps they will inspire someone to tackle some of their own small projects around they shack/house.

Kenwood Microphone plug replacement

“Hey Mat, your audio is cutting in and out.” “Mat, your sounding pretty scratchy”. I had been hearing these comments for a while on the 2M net. After some amount of hours trying to find problems with my antenna, feedline, etc, I finally found the issue was a loose mic connection. The stock Kenwood mic plugged into the rig with an RJ45 plug/jack (the same kind used for wired ethernet connections). This connection was loose, and when I wiggled it I could easily recreate the problems.



I had several options: I could glue it in (a very permanent solution), I could buy a new mic (an expensive solution), or I could fix the existing mic. As you have already guessed, I elected to try to fix the problem. I figured there was a 50/50 chance that it was either the jack, or the plug. The plug would be easier to fix, as I would have to take the rig apart to fix the jack. I found a shielded CAT6 connector, which I liked because it was slightly bigger than the original CAT5 on. It fit very snugly in when I dry-tested it: this way I figured even if it was the jack that was the problem, the plug might compensate.



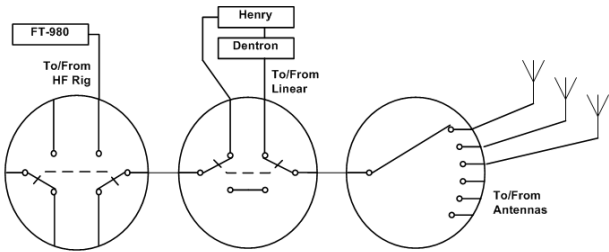
I cut the plug off the end, and then used my network crimping tool to attach the new plug. I plugged it into the radio, and the problem was solved!!! Since I already the CAT6 plug laying around, this repair was free.

Feedline Switches

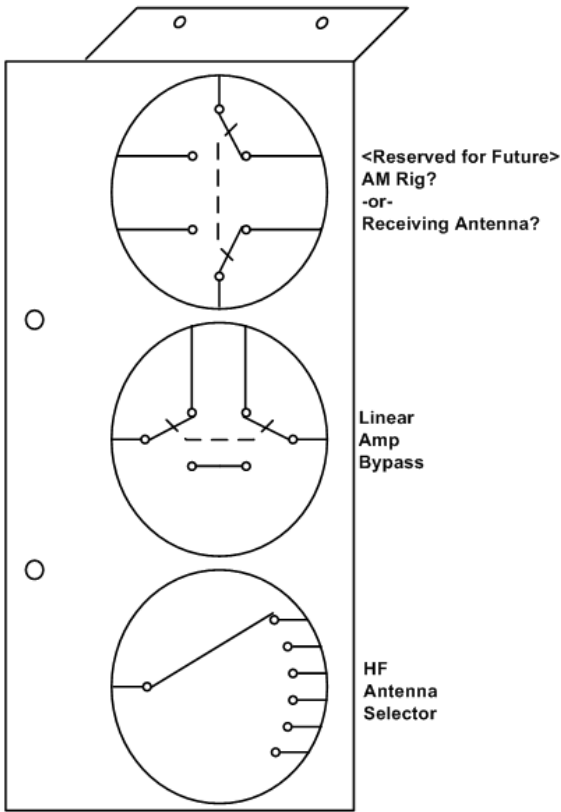
I’ve always admired shacks that had a nice set of feedline switches. The operators were easily able to switch rigs, antennas, add a linear, etc ... all with just a couple of turns of a switch. Now that my antenna and rig collection was expanding, and I had a working linear, I was getting sick of unplugging and re-wiring every time I wanted to do something different.

With that thought in mind, I had bought some used B&W (Barker & Williamson) feedline switches a number of years ago at a swap. I was fortunate that the switches needed some simple exterior cleaning, and that they were functional (B&W switches are sealed in a can, and not so easily repairable). Note that while you can do a quick check for high resistance using an ohmmeter, to really find out if a power switches works you have to run it with a load (to pump some power through it).

I now laid out how I would set them up: I wanted to support many antennae, two rigs (one operational at any time), and be able to switch the linear in an out. The wiring diagram below shows how I was able to lay it out:



Rich (W8DOW) helped me cut some steel plate, which I drilled and painted. I had collected the correct switches, and had enough jumpers to make the happen. I made a few custom feedline lengths to make things neater. The project was done with a couple of hours of work: see the pictures below for concept drawing and the final product.



I believe I spent around \$30 for the switches. The screws and paint and other parts all came from the junk box.



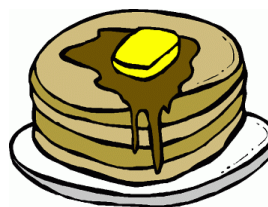
Upcoming Swap Meets:

Plans, dates and locations do change occasionally (and I have been known to make a mistake now and then). Please check the listed web site before making travel plans.

Date	Location	more info.
06/10/2016	Newberry	http://www.w8nby.com
06/18/2016	Midland	http://w8kea.org
07/16/2016	Lowell	http://www.k8lhs.club
07/30/2016	Lansing	http://www.centralmiarc.com
08/06/2016	Escanaba	http://www.dcars.org
09/18/2016	Adrian	www.w8tqe.com
10/08/2016	Alpena	http://ThunderBayARC.org
10/15/2016	Muskegon	http://mcecs.net/Hamfest.htm
10/16/2016	Kalamazoo	http://www.kalamazooamfest.com
10/30/2016	Madison Hts.	http://usecaarc.com
09/17/2017	Adrian	www.w8tqe.com
09/18/2018	Adrian	www.w8tqe.com



GCARC Sunday Night Net,
Sundays at 9:00pm
146.860 MHz,
-600KHz offset
100Hz PL Tone
Please join us!



Join us for Breakfast
Saturday at 9:00am
Leon's Coney Island
30149 Ford Rd.
Garden City, MI 48135

ARRL "Strongly Supports" Petition to Drop 15 dB Restriction for Amateur Amplifiers

In comments filed on May 26, the ARRL said it "strongly supports" a petition to the FCC seeking to eliminate an Amateur Service rule, spelled out in Part 97.317(a)(2), that amateur amplifiers not be able to boost the RF input signal by more than 15 dB. The Petition for Rule Making (RM-11767), was submitted in April on behalf of an amateur amplifier distributor, Expert Linears America LLC of Magnolia, Texas.

ARRL's comments can be found on the web at, <http://www.arrl.org/news/arrl-strongly-supports-petition-to-drop-15-db-restriction-for-amateur-amplifiers>

RM-11767 can be found on the web at, <http://apps.fcc.gov/ecfs/comment/view?id=60001536394>.

"The Petition proposes relief that is in the nature of eliminating unnecessary regulatory underbrush, and it continues an effort started by the Commission on its own motion in 2004...to do precisely that," the ARRL said in its comments. "The rule proposed to be eliminated is outdated; it constituted overregulation when it was adopted long ago, and it now substantially limits the flexibility of Amateur Radio operators to experiment with the current generation of software-defined Amateur Radio equipment."

The 15 dB provision came into the rules during an era when the FCC initiated various actions to rein in a major interference problem resulting from the use of illegal 11 meter amplifiers during the Citizens Band radio boom of the 1970s. "In its effort to address that problem, the Commission enacted a series of largely redundant and overlapping regulations that, in their overall effect, unnecessarily (and inappropriately) penalized the wholly innocent Amateur Radio operators," the League asserted. "There was created a plethora of restrictions on manufacturers of ex-

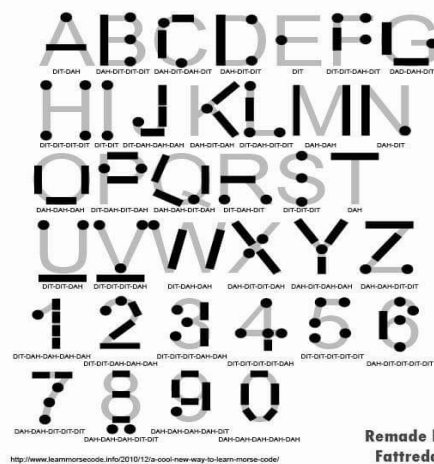
ternal RF power amplifiers."

The ARRL noted that while the FCC eliminated some of the unnecessary regulations in 2004, others remain, including the 15 dB gain restriction. The rules adopted in 1978 also called for type acceptance (certification) of manufactured RF power amplifiers operating below 144 MHz, including a 50 W minimum drive power requirement and a ban on amplifiers capable of operation between 24 and 35 MHz.

"Indeed, precisely the same rationale for elimination of the 50 W minimum drive power rule in 2006 applies to the elimination of the 15 dB gain rule for amateur amplifiers," the ARRL said in its comments. "There is no continued justification for retaining the 15 dB gain limitation."

The League agreed with the petitioner that a current generation of low-power Amateur Radio transceivers, including software-defined designs, cannot drive an amplifier to full legal power given the 15 dB limitation. "It should not be necessary to configure an Amateur Radio station to include an additional amplifier stage in order to make use of current SDR technology in the Amateur Service," the ARRL said.

[Thanks to Rich, W8DOW, for forwarding this - ed.]



<http://www.learnmorsecode.info/2010/12/a-cool-new-way-to-learn-morse-code/>

MONROE HAMFEST
and Computer Show
Only 1-1/2 weeks to go
Father's Day - June 19, 2016
7:30 am to 1 pm

Presented by:

The Monroe County Radio Comm. Assoc.

Monroe County Fairgrounds
M-50 at Raisinville Rd
(2 miles west of Monroe)

Free Parking

Indoor Facilities / Trunk Sales

Computers and Equipment

Distributors / Hot Food

Overnight Camping available

Talk-in 146.72

For more information and

Table, Trunk and Ticket orders

Go to: <http://www.mcrca.org>

Click on Hamfest in the left column

or email Fred KA8EBI at ka8ebi@yahoo.com



As most of you know, Field Day is coming June 25-26. Boy Scout Troop 1241 is graciously hosting our field day stations and activities at their cabin, located at 1524 Middlebelt (near Hennepin). I am hoping that this will be the beginning of an ongoing relationship which will be of benefit to both the Scouts and the Radio Club.

The Troop is holding their annual garage sale the weekend before Field Day, June 17-19. This annual fund-raising event covers a large portion of the Troop's operating expenses through the year, reducing the financial burden on the boys and their families.

I would like to encourage you to help support the scouts in one (or both) of two ways. First, any items that you would be willing to donate for sale by the scouts can be dropped off at the Scout Cabin during the day from June 13 -16.

Second, and more importantly, come to the sale on Friday, Saturday or Sunday. Find that treasure that you just can't live without, and help the scouts out in the process.

*Thanks, and hope to see you there,
73,*

Don, KC8VCX



K8GC

Garden City Amateur Radio Club

PO Box 482

Garden City, MI 48135

Address Correction Requested

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