



FEEDBACK

September 2012

Your Story:

Do you have a story, humorous or otherwise about amateur radio? If so, please contact the newsletter editor (wr8g@omega-link.com) and get it published in FEEDBACK.

You don't have to be a professional writer, or even a writer at all. If you're comfortable with writing, great! If not, relate the story in the fashion that you are comfortable with and let the editor do the rest.

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SMARS outing September 8, 2012

The Ohio State Park contest was held September 8, 2012. SMARS decided to take one of the club trailers and see how many stations we could contact. We set up at the Fort Custer Chapel, mainly for the easy access and the long chain link fence we could use as a ground plane for the club's Butternut antenna. Don, W8RVT, also brought an antenna to set up as an inverted-V. We used the club's Icom IC-716 and the Kenwood TS-440S on mainly 40 meters.

We contacted a total of 20 parks during the 8 hours of the contest. All in all, a good excuse to play with radios.

There should be some good excuse in October to get a station up and running, we'll try to get the word out a little earlier.

Here are the participants for Saturday's event (in no particular order): **Jay, KD8OXR; John, W8JRD; Don, W8RVT; Tom, WR8G; Jaques, N8YFL; Daniel, D8NOG; Stephanie, W8AEZ; Michael, KD8SDX; Dale, KD8RWE; Gary, N8QC.**

Thanks to all who participated and a special thanks to Jay, KD8OXR for the pictures.

73,

John, W8JRD

Getting Started

How did you get interested/started in the amateur radio hobby? Some hams were influenced by family members who are or were involved. Some may have become introduced through military service, either through training or association with a MARS station. And then there is my story which starts with a bribe!

My introduction was through my uncle, Fred, a ham (currently W2NVW) who has been involved for almost 50 years. He began his interest while in the Air Force and was licensed during that time. From the very beginning he tried to interest me in the hobby but, since I wasn't even out of elementary school at the time, I had other things to occupy my time.

Moving forward to the 70s and 80s, I was involved with making a career in the



Board of Directors

President

Gary Williams, N8QC
n8qc@arrl.net

Vice President

Dave Ashbolt, K8OLY
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Secretary

John Davidson, W8JRD
w8jrd@arrl.net

Treasurer

Don Larkin, W8RVT
w8rvt@arrl.net

Past President

Bob Kingsbury, AC8GL
kings-boo@yahoo.com

Club Meeting

3rd Thursday of every month
Maple United Methodist Church
342 Capital Avenue NE
Battle Creek, MI 49017

Next Meeting

September 20th, 2012 @ 7 PM

BLB Luncheon

2nd Thursday of every month
Mancino's
1791 W. Columbia Avenue
Battle Creek, MI 49015

Next meeting

October 11th @ 11:30 AM

SMARS Breakfast

1st Saturday of every month
Homespun, 210 E. Columbia Av
Battle Creek, MI

Next Meeting

October 6th @ 8:30 AM

electronics/computer industry, something that, again, took much of my time. The pressure continued unabated but I had adopted a philosophy that my occupation was never going to become my avocation. That thinking carried me into the 90s.

During that decade, the family began a tradition of reunions, usually every three years, when everyone gathered in northern New York. At each and every one of these reunions, I was presented with the latest issues of QST and any other radio magazines in his possession, always urging me to get interested. By this time my standard argument was that I had to concentrate on work issues and, besides, I didn't think I could afford the equipment; putting costs in the magazines didn't work to the dealer's best interest. Again, I was adamant.

By 2007, my job in the electronics business had ended (retired) and one of my most basic arguments was gone. I still had the cost issue working.

Then, at the reunion in 2010, Fred again offered the magazines and his push, working on the issue that the code requirement had been dropped, (whether for good or bad, a sticky wicket to many in the hobby). His argument was strengthened by handing over his used iCom 2100 2m mobile rig (the aforementioned bribe). He told me it was mine, as long as I would get a ticket. The rest is history. That single FREE radio has cost me quite a bit, as anyone else in the hobby can probably understand. I started with a homemade antenna but soon graduated to a commercial vertical, then a tower, rotor, etc.

I was able to brag to Fred that I was up and running on 2m and was having fun while learning new things all the time. I confessed that I had gotten an interest in moving on to HF work and had invested in a Yaesu FT-897D (it *has* to travel with me in the motorhome, you see) and was looking for something to use as an antenna. At the last visit to New York, he presented me with his old, used Mosely Classic 36 beam antenna! I am thinking that I need to make more frequent visits to his QTH with the largest vehicle I have!

Despite the increasing costs (I WAS right about that in my early arguments!) I deeply appreciate his donations to the cause. I'm almost certain I wouldn't be on this journey without his generous help.

How did you get your start?

73s de **KD8OXR, Jay**

Electronics Corner

This month, I'm introducing a new feature to Feedback. In this column I will discuss various concepts related to the electronics side of amateur radio. This month I will be discussing the differences between P and N channel MOSFETs when used as power switches.

Without a doubt, the N-channel MOSFET is the most commonly used device for switching power to circuits. This is due to both low cost and slightly lower ON resistance of N-channel devices. A typical schematic of an N-channel switch is shown in figure 2. While this works great, it isn't without problems. First and foremost is that you lose your ground connection when the device is turned off! Secondly, even though a modern N-channel device has an on resistance on the order of milliohms,

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Hamfests

09/14/2012: W9DXCC Convention
Elk Grove Village, IL
Northern Illinois DX Association
<http://www.w9dxcc.com>

09/15/2012: Radio Expo
Belvidere, IL
Chicago FM Club
<http://www.chicagofmclub.org>

09/16/2012: Adrian Hamfest
Adrian, MI
Adrian Amateur Radio Club
<http://www.w8tqe.com/hamfest.htm>

09/16/2012: GCARA Hamfest
Cincinnati, OH
Greater Cincinnati Amateur Radio Association
<http://www.gcara.org>

09/22/2012: Illinois State Convention (Peoria Superfest 2012)
Peoria, IL
Peoria Area Amateur Radio Club
<http://www.peoriasuperfest.com>

09/23/2012: Cleveland Hamfest and Computer Show
Berea, OH
Hamfest Association of Cleveland
<http://www.hac.org>

09/29/2012: Ozaukee Radio Club's Fall Electronics, Computer & Hobby Swapfest
Cedarburg, WI
Ozaukee Radio Club
<http://ozaukeeradioclub.org>

10/06/2012: Hoosier Hills Hamfest
Bedford, IN
Hoosier Hills Ham Club
<http://www.w9qyq.org>

10/07/2012: USECA's 27th Annual Hamfest
Madison Heights, MI
Utica Shelby Emergency Communication Association
<http://www.usecaarc.com>

10/13/2012: Muskegon Color Tour Hamfest
Muskegon, MI
Muskegon County Emergency Communication Services (MCECS)

10/14/2012: SEWFARS Swapfest
Hubertus, WI
Southeastern Wisconsin FM Amateur Repeater Society
<http://www.sewfars.com>

10/21/2012: Kalamazoo Hamfest
Kalamazoo, MI
Kalamazoo Amateur Radio Club (KARC) & Southwest Michigan Amateur Radio Team (SMART)
<http://www.KalamazooHamfest.Com>

10/28/2012: Massillon Hamfest
Massillon, OH
Massillon Amateur Radio Club
<http://www.w8np.org>

11/03/2012: Milwaukee Repeater Club Hamfest
Milwaukee, WI
Milwaukee Repeater Club
<http://www.mrc91.org>

11/04/2012: WACOM 2012 Hamfest
Washington, PA
Washington Amateur Communications
<http://www.wacomarc.org>

11/17/2012: Indiana State Convention (Fort Wayne Hamfest & Computer Expo)
Fort Wayne, IN
Allen County Amateur Radio Technical Society
<http://www.fortwaynehamfest.com>

12/02/2012: LCARC Amateur Radio Swap/Hamfest
Harrison Township, MI
L'Anse Creuse Amateur Radio Club
<http://www.n8lc.org>

Do you know of a amateur radio related event that isn't listed in this news letter? If so, please contact the newsletter editor (WR8G, Thomas Goodson, wr8g@omega-link.com, 269-962-8007) with details and I'll try to get it into the next edition of Feedback.

Smars meeting 8/16/12

Called to order at 7:00pm by N8qc

officers present **Gary N8qc, Don W8rvt**

15 members present (plus board)

secretary's report - motion by Jay, 2nd by Walt

treasurers report - motion by Bev and Dave Smith, 2nd by Walt

committee reports:

- hamfest 2013– Don awaiting contact back from MAC Ctr
- RACES report from Dave: 1 severe weather net, Siren test - 2 out of 15 didn't work
- Balloon event at Kcc this weekend. SARS and RACES to assist. Battery maintenance in the RACES trailer
- Had a hospital net last week- reminder that anyone can check in (digital and analog)
- 5th district meeting- only 4 attendees
- RACES/ARES skywarn net not listed in Feedback request by Dave to please add it to Feedback
- Suggestion by **Don kb9iar** for RACES to print off flier for next Ham-in-a-day (around Oct 27th)
- Field day- Lou reported that mail with permit was sent to Grand Rapids sorting center, was received last week
- Next VE session- next week Thursday, question by Bob Kingsbury If SMARS has new tests for Extra class (will need to check with VE **John W8JRD**)
- Next SMARS b'fast - Sept 1st at Homespun
- Louie wb8wx mentioned tractor & engine show he and Arnie attended

Old business:

- Field trip to **N8CC Jeff Benson's** place - maybe do it in September, need to touch base with Jeff
- Memorial Day outing in Ft Custer. Discussion about doing another outing in September, work some special event stations
- Discussion about participating in the Scouts Jamboree on the Air (Oct 20-21, 2012)

Winner of 50/50 - **Don kb9iar**

New business:

- **Don w8rvt** brought up possibility of using battery power (5 watts or less) for Field Day 2013, with renewal resource generator (steam engine, wind generator, solar, etc.). Advantages- additional points/multipliers. Disadvantages- making contacts at 5watts will be more challenging. Discussed moving Field Day setup closer to a high-traffic area for more exposure.

- Kelly brought up inviting local Scout troops to participate in Field Day to work on their radio merit badge
- Daniel mentioned having a station hooked up to a dummy load for those persons who aren't amateur radio operators an opportunity to practice transmitting.
- Christmas party - will try to get reservation at Old Country Buffet for Saturday Dec 8th. If the 8th isn't available, will reserve for Sat. Dec 15th
- Kelly brought up taking the trailers out more often set up at the Mall - to show others our hobby
- Discussed increasing participation in **Walt K8AEM's** 10 meter net on Wednesdays 8pm on 28.365 MHz
- Jacques suggested checking with the City about using local parks for remote operation (Parks and Rec Office in Full Blast)

Louie's presentation on Files

- How files are made (not made of high carbon steel so the teeth can be cut into them, then they are re-fired)
- Different kinds of files (rat-tail, etc.)
- Needle files
- Importance of putting a handle on larger files (for safety)
- Proper storage of files (separate them with a sleeve)

Motion made to adjourn, 2nd by Jacques. Meeting adjourned at 8:39pm

Notes taken by **Stephanie W8AEZ**

S.M.A.R.S. W8DF Club Repeaters

Southern Michigan Amateur Radio Society

2 Meter Repeater 146.660 MHz

-600KHz offset, PL 94.8

70cm Repeater 443.950 MHz

+5MHz offset, PL 94.8

1.25 Meter Repeater 224.240 MHz

-1.6MHz offset

70cm and 1.25 meter repeaters are linked.

Also available via echolink.

W8DF-5 144.39Mhz Digipeater/Igate

Find it on www.arps.fi

Other Area Repeaters:

Skywarn/ARES/RACES

2 Meter: 147.12, -600KHz offset, PL 186.2

70cm: 442.350, +5MHz offset, PL 94.8



SMARS Board Meeting September 5, 2012
 Called to Order: 4:57 PM
 Officers Present: **Gary, N8QC; Doc, K8OLY; John, W8JRD; Don, W8RVT**
 Others Present: Chris Williams
 Topics:

- Need to contact **Louie, WB8WXS** about reserving space for the Christmas Party
- Don wants to change the new ham policy so that new hams get the rest of that calendar year as free membership to SMARS provided that they fill out a membership sheet.
- John needs an official Ham in a Day flyer to advertise with the ARRL
- The Ohio State Park event is Saturday September 8 from 12-8. Club will set up a trailer at a to be determined location. SMARS missed out on the official Lighthouse QSO contest, but will have to try in the future.
- John and Doc will put together a list of books for the library for the **WA8MFL** memorial. The budget will be approximately \$500.
- George will have to be contacted about the CW class.
- More discussion about low power for Field Day.
- Doc and John will make a trip up to **Jeff, N8CC** to arrange a time for a field trip

Adjourned: 5:55 PM

Respectfully Submitted,
John Davidson, W8JRD
 SMARS Secretary

Income and Expense Statement

8/1/12 Through 8/31/12

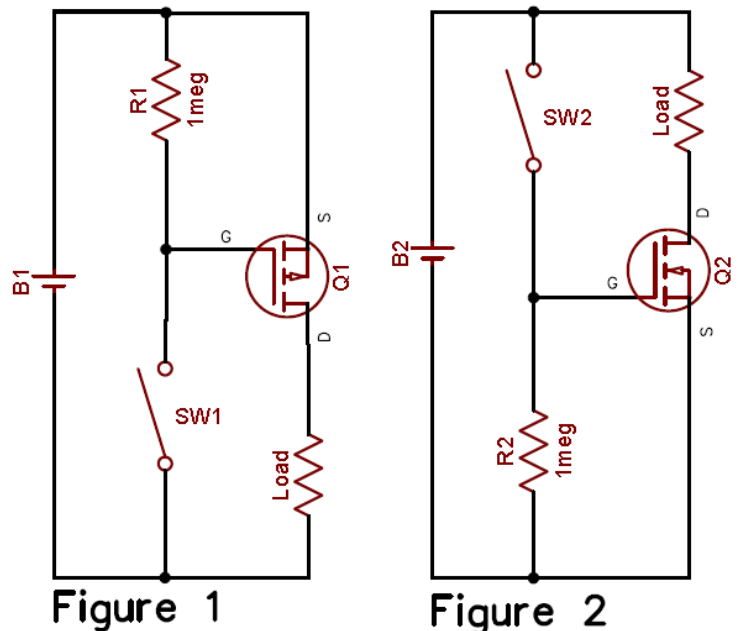
Category Description	8/1/12 -8/31/12
INCOME	
Dues:	
2012	10.00
2013	<u>20.00</u>
TOTAL Dues	30.00
Interest Inc	<u>0.63</u>
TOTAL INCOME	30.63
EXPENSES	
Administration:	
Corp File	<u>20.00</u>
TOTAL Administration	20.00
Hamfest2012:	
Tickets	<u>0.00</u>
Total Hamfest2012	0.00
Meetings	
Refreshments	<u>6.45</u>
TOTAL Meetings	6.45
Utilities	
Telephone	<u>69.16</u>
TOTAL Utilities	<u>69.16</u>
TOTAL EXPENSES	95.61
TOTAL INCOME - TOTAL EXPENSES	-64.98

(Electronics, Continued from page 2)

there will still be a voltage drop across the device that raises the load above ground potential.

Now we come to the P-channel device. In figure 1 you see the schematic of a P-channel switch. You should notice that the circuit is nearly flipped from the N-channel version with the exception of the polarity of the battery. Of special note is the locations of the Source (S) and Drain (D) pins. If you accidentally reverse these, the internal protection diode will be forward biased and will conduct, even when the circuit is off.

So, what does this change get us? The load is directly connected to ground, both when the load is powered and when it isn't. This is very important for both RF and



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lightning safety. The down side is that P-channel MOSFETs cost more, are higher in resistance (by a few %), and are harder to find in the values that you need.

Now that we have looked at the advantages of each, let's take a look at how they work. First, the depicted MOSFETs are enhancement mode devices, so by default they do not pass current from source to drain. To help insure that the MOSFETs stay solidly off, a large value resistor (R1/R2) is connect from the gate to the source. In the absence of any other voltage (SW1/SW2 is open) the MOSFET will be off and no current flows through the load.

Now is where things differ between the P and N channel devices.

With an N channel device, you must take the gate to a positive voltage relative to the gate, which is what happens when SW2 is closed.

With a P channel device, you must take the gate to a NEGATIVE voltage with respect to the source. Since the source of the P-Channel MOSFET is connected to the + terminal of the battery, and the SW1 will connect the gate to the - terminal, this condition is satisfied and the load gets power when SW1 is closed.

Next month we'll take a look at some timing circuits.

A trip to W1AW

My wife and I recently had the chance to W1AW and the ARRL headquarters. While we were there, I had the chance to operate W1AW for about 45 minutes. It was kind of fun to be the source of a pile up and not the one trying to bust through. While at headquarters, we were given the tour by Skip, W1FTE. In the course of the tour, we got to see many of the operations and meet quite a few of the people behind the scenes. Among these were the publication staff for QST (Got to see the cover for October in August) and the outgoing qsl bureau. The qsl bureau is pretty much a one woman operation, with the help of some part time volunteers, so it amazing that the cards get to their destinations so quickly.

I've included some of the (many) pictures that we took while visiting. We had planned to also visit the antique radio museum, but sadly, it wasn't open on Tuesdays.



Field Operations

Here are some pictures taken by Jay, KD8OXR; of the field operations at the Fort Custer Chapel during the "Ohio State Parks On The Air" contest. Shown in these pictures (in no particular order) are **John, W8JRD; Don, W8RVT; Tom, WR8G; Jaques, N8YFL; and Daniel, D8NOG;**

In spite of some confusion about which cable went to which antenna, the equipment worked well and contacts were made by several operators.

A good time was had by all and the only drama was a fiberglass pole breaking as we were trying to put up a 40m dipole.

I understand that another such event is being planned for sometime in October. Please watch the web site (www.w8df.com) and listen to the local nets for details.

-73, WR8G



SOUTHERN MICHIGAN AMATEUR RADIO SOCIETY

FEEDBACK



SMARS

P.O. Box 934

Battle Creek, MI 49016

FIRST CLASS MAIL



SMARS NETS

Before Lunch Bunch

Monday—Friday 11:30 AM, 146.66

Sunday Evening 8:00 PM, 146.66

Monday 8:00 PM, 224.24

Monday 7:00 PM, 147.12 (Skywarn)

Wednesday 7:00 PM, 443.95

Wednesday 8:00 PM, 28.365

Saturday 8:00 PM, 443.95

Upcoming events:

Club meeting: September 20th @ 7:00 PM

SMARS Breakfast: October 6th @ 8:30 AM

BLB Luncheon: October 11th @ 11:30 AM

VE Testing: October 25th @ 7:00 PM

VE Testing (Ham-In-A-Day) October 27th @ 3:30 PM