FEEDBACK

JOHNSON COUNTY RADIO AMATEURS CLUB, Inc.
P.O. Box 93, Shawnee Mission, KS 66201
The Johnson County Radio Amateurs Club normally meets on the 2nd and 4th Fridays, 7:30 PM at the Overland Park Christian Church (north entrance), 7600 West 75th St. (75th and Conser Streets), west of the Fire Station.

JUNE 2014

PRESIDENT'S CORNER

June will be a very busy month. There are plenty of public service events during June and thanks to Lon we will be having our first HF Mobile Shootout June 13.

Field Day 2014 is June 28 and 29. We will be returning to the observation tower at the Shawnee Mission Park. Jay has been working hard to pull everything together. Setup will start Friday afternoon as we have done the last several years. We do have to be ready to assist with the sheriff's tower. We are awaiting word as to when the tower will arrive, so we may need help earlier Friday morning. The Field Day rules allow setup starting Friday. A few of members need to stay overnight Friday. In past years Friday evening has been a lot of fun with all the equipment in place for a test run. Please make special note that the second meeting for the month will be at the Field Day site.

Last year we had a large number of visitors because the observation tower is a well traveled spot at the Park. This gives us an excellent opportunity to showcase the amateur radio service. Again talk to your neighbor, coworker, friend or youth group and extend them an invitation to visit the site. There will be a "Get On The Air" (GOTA) Station set up if they would like to make some contacts.

Elections were held at the last meeting May 23. We have a new Vice President, Aaron Boots. Please congratulate him when you see him. The remainder of the club officers remained the same.

Bill, KA2FNK, President

INSIDE THIS ISSUE - UPDATED ITEMS

BIRTHDAYS

When you get a chance, say "Happy Birthday" to the club member(s) listed below. If your birthday is not listed there, it was not listed in www.qrz.com/. But, you can email us the month and day (we don't publish the year!). We will add it to the list.

JUNE

03 Royce Parman, KA0YQD

17 Richard Britain, N0ENO

TIDBITS

- Congratulations to Aaron Boots, AA0RN on becoming the JCRAC Vice President Elect.
- Mac (Jim) McCoy, W0LQV is recuperating from a broken hip. He is currently at the Villa St. Francis Skilled Nursing Facility in Olathe and doing well. Visitors welcome.
- Rich Zaban, KC0VDH is recovering from burns and is currently at the Indian Creek Healthcare Center rehab facility in Overland Park. He really appreciates and welcomes visitors. Being the BBQ King that he is, he plans to BBQ for the facility staff members.
- Don't forget the bug spray for Field Day – keep those chiggers at bay!

THIS MONTH'S MEETING SCHEDULE

Friday, June 13, 2014 6:00 pm

The program for this evening will be the HF Mobile Shootout which will start at 6:00pm. Business meeting to follow. See flyer on page 11.

Friday, June 27, 2014 7:30 pm

Meeting takes place at the Field Day Site
No Program, Field Day Setup will continue

June						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Annex Meeting

Generally a post-meeting occurs after each club meeting. Typically this starts about 8:45pm at The Pizza Shoppe, 8915 Santa Fe Dr., Overland Park, KS 66212. A pizza buffet is served including a drink – approx. $8.20 plus tax. Their regular menu is available and also garden salads in two sizes. All are welcome.

JCRAC CLUB DUES

Remember, you have an option now on JCRAC dues; save with $40 for TWO YEARS, as compared to the regular rate of $24 per year. Your grandchild under the age of 18 qualifies as a member of the family for membership purposes. Dues should be received by the end of your subscription month.

Active members receive a copy of the *FEEDBACK*. Is your club membership dormant? Contact Cal, the Treasurer to bring it up to date or this can be done online – see the club website.

WHEATSHOCKER / 10M / ARES NETS

Weekly Nets

The Wheatshocker Nets are called on:

Wednesday evenings, 8 pm on 443.725 (+) PL 151.4
Thursday evenings, 8 pm on 145.29 (-) PL 151.4

10 Meter USB

On Thursday, there is usually a "round-table get-together" on or about 9:00 P.M. using 28.475 MHz USB – after the Wheatshocker Net.

ARES Net

The Amateur Radio Emergency Services (ARES) net is also called on 145.29 at 7:00 pm local, weekly on Tuesday.

NAME BADGES – W0ERH PATCHES

Name Badges

Name badges with your name, call letters, and QTH; top quality, engraved in a wide range of colors.

Contact Jim McCoy "Mac", WØLQV at 913-648-4406 or jmsmccoy85@gmail.com.

W0ERH Patches

For sale, 4" diameter multi-colored embroidered patches, with the WØERH call sign, for sale at $3.00 ea. This will give the club a small profit on each patch.

Contact Cal Lewandowski, KCØCL at 913-961-2175 or clewando@gmail.com.

LICENSE TESTING

Testing takes place on the third Saturday of each month, at 9:00 am at the Johnson County Public Library Blue Valley Branch, 9000 West 151st St., Overland Park, KS - just west of Antioch on north side of 151st St.

There is a $14 fee. Pre-registration is NOT required. Walk-ins are welcome!

For more information contact Jim Lee, NØKCB 913-745-5121 or e-mail: JimLee@kc.rr.com. Commercial Radio Tests are also available.

QUARTER CENTURY WIRELESS ASSOCIATION

Come enjoy lunch with other hams. The lunch location has been updated on both the National and the Chapter 35 QCWA webpages. The icon on the local page is also a link to RC's webpage.

Local web site: www.qsl.net/qcwa35/.
National web site: www.qcwa.org/events.php.

Remember, ALL hams are invited to join with the Chapter 35 folks on Thursday, 1100 CDT, RC's, Martin City, MO. Mid-Continent Chapter 35 serves the Metro KC area in both Kansas and Missouri. Ron Wood, KØBRO is President and JCRAC club member George Yantis, KØGY is Chapter 35 Secretary and Treasurer.

Starting in January 2013 QCWA publications will be online only as one means of reducing costs. More information on QCWA and Mid-Continent Chapter events can be found at www.qcwa.org/.

ENSOR PARK AND MUSEUM

If you can visit the Ensor Park and Museum, just 5 minutes South of central Olathe but haven't, do it now and see a most interesting and original flashback to the mid-1900's. Our motto "SEE IT TO BELIEVE IT" is true.

A site map, with Ensor GPS coordinates, and much more can be seen on the website at www.w9bsp-w9ua.org/.

Larry Woodworth, WØHXS, Ensor Park and Museum Manager

LAST MONTH'S MEETING MINUTES – 1ST AND 2ND MEETINGS

Meeting Date: Friday, May 09, 2014

Tonight's meeting was a Fox Hunt. No official meeting took place.

Submitted by Ted Knapp, NØTEK, Secretary.

Meeting Date: Friday, May 23, 2014

The meeting started at 7:30 pm.

Attendance:

Self introduction was with name and call sign. The check-in sheet had 33 signatures. This was followed by the Pledge of Allegiance. The Minutes from April 11, April 25 and May 09, 2014 were read and accepted with 1 opposed vote.

The Treasurer's report, as follows, was read and accepted unanimously.

Treasurer's Report:

Cash on Hand	$ 242.00
Checking Account	$ 216.65
Savings Account	$ 9,244.82
Total	$ 9,703.47
Repeater Operating Reserve	$ 610.05
Memorial Fund	$ 150.00
Active Members	145

Old Business:

- Repeater Updates – The 2m Repeater developed a telephone issue. This issue has been resolved. Bill Brinker WA0CBW submitted a bill for the work done this fall on a Repeater Crystal. Tom Wheeler, N0GSG reported the new controller for the 440 Repeater is ready to be installed.
- Website Update – Doing fine.
- Ensor Auction – We recently received a donation from a SK estate. Keep looking for items to donate.
- Feedback Newsletter Editor needed – Steven Martin, K0SLM agreed to take on the Editor position temporarily back last fall.
- The JCRAC First Annual HF Mobile Shootout Date: Friday, June 13, 2014 at 6:00 PM. Read more: http://www.w0erh.org/

New Business:

- Annual Elections were held. A nomination was made to retain the current slate of elected officers. A second nomination was made for Aaron Boots, AA0RN as Vice President. After a short discussion a motion was made to nominate the current slate of elected officers with Aaron Boots, AA0RN as Vice President in place of Ryan O'Neil KD0EWB. This motion received a second. A vote was taken all nominated positions and received unanimous approval.

JCRAC Elected Officers are:

Bill Gery KA2FNK – President
Aaron Boots, AA0RN – Vice President
Cal Lewandowski, KC0CL – Treasurer
Ted Knapp N0TEK – Secretary

Elected officers will take office on August 1.

Reports:

6m	+	West Coast
440 (Ham 101)	05	May 22
440 Wheatshocker	18	May 21
	16	May 14
2m Wheatshocker	23	May 22
	20	May 15
10m USB Roundtable	7	May 8
HF Activity		
According to Frank Parks, AC0FP May, June, and July are good months for 6m. South Pole 20m Mobile		

Announcements:

- Lone Star Century Bike Ride – May 25.
- Ham 101 Class attendance was 15 with 4 new hams getting on the air for the first time.
- Warrensburg Hamfest – July 19.
- Campfire at Ensor – Had 5 couples in attendance. All had a very enjoyable time.
- Ensor Museum is open on Saturdays and Sundays from 1 – 5 PM in the months of May, June, September, October.

Business meeting adjourned at 8:00 pm.

Program:

The program for this evening will be to finalize plans for Field Day. As a reminder Field Day is June 28 - 29.

Submitted by Ted Knapp, NØTEK, Secretary.

LARRY'S LIST

Larry Staples, WØAIB compiles, and makes available by e-mail, a list of Hamfests and Public Service Events in the metro Kansas City area. Please let WØAIB know of any ham-type events, with confirmed dates, scheduled to be held in the metro area in 2014.

Be sure to subscribe to Larry's List for "up-to-the-minute" messages on many ham-related subjects! Contact lstaples@kc.rr.com.

HAMFESTS – CONFERENCES - SPECIAL EVENTS

Jun 8	Egyptian Radio Club - EgyptianFest
Jun 28-29	ARRL Field Day
Jul 19	Hamfest 2014 Warrensburg Area Amateur Radio Club
Jul 25	Oklahoma State ARRL Convention

PUBLIC SERVICE EVENTS

Jun 2-6	Cub Scout Day Camp Help - 'Cubs in Space'
Jun 6-7	Hospital Hill Run 2014
Jun 7-8	Heartland Border Walk For MS
Jun 8	ADA Tour de Cure (aka Wheels to Weston)
Jun 8	Joel's Ride – "Wheels for Meals"
Jun 14	Run The Good Race
Jun 15	Ride The Fountains Bike Ride
Jun 15	Kansas City Corporate Challenge Du/Tri
Jul 12	Lenexa Moonlight Bike Ride
Jul 13	UCP Shawnee Mission Triathlon
Jul 27	Cider Mill Century Bike Ride
Aug 10	Midwest Meltdown
Aug 17	Jackson County Triathlon
Aug 24	Summer Breeze Bike Ride
Sep 01	Bike for the Brain Ride
Sep 13	Olathe Medical Center Women's Triathlon
Sep 13-14	MS-Ride
Sep 21	Bikers for Babies
Sep 27	American Royal Parade
Oct 31	Scare-IT – Halloween

EDITOR'S NOTE

The *FEEDBACK* is published monthly for the JCRAC active membership and delivered by email. Opinions expressed herein are not necessarily those of the club or the officers.

News items and articles for the *FEEDBACK* should be in the Editor's possession by the last week of each month for publication the following month.

Hard copy versions of the *FEEDBACK* are available by special request only (one to a household). These will be printed in B&W and be mailed shortly after the online version becomes available.

A good publication starts with plenty of material. And much of that comes, or should come, from members like you. Feel free to share news. This can be anywhere from one line news items to full articles. Let's make it easy – just email these items to the editor.

The Club Officers will be considering one or more individuals - one of whom will become the Editor of the *FEEDBACK*. Just send an email to Ted, the club Secretary at (n0tek@ymail.com) and let him know you are interested in the position. The newly selected Editor will pick up the duties a few weeks after. Helpful skills include:

Word processing with formatting
Photo resizing and balancing
PDF file creation with email distribution
B&W printing and mailing

WW1USA – SPECIAL EVENT STATION

2014 Club Hosts

June 28-29 – Raytown Amateur Radio Club
Archduke Franz Ferdinand Assassination

August 02-03 – Santa Fe Trail Amateur Radio Club
The Great War Declared

September 06-07 – Johnson County Radio Amateur Club
The Battle Of Marne

December 27-28 - Warrensburg Area Amateur Radio Club
Christmas Truce

Computers are Wonderful in Ham Radio

Part 8

By Tom Wheeler, NØGSG

Hams don't need to be told that computers are everywhere; they're embedded into everyday devices such as toasters, microwave ovens, and coffee pots; modern cars can easily contain a dozen of them. And of course, there's always the computer in the shack, and the computers that live inside all radios made in recent history. There's no getting around it; if you aspire to be a master troubleshooter, you will have to master some digital skills, and then plan on continually refining them.

Computers are wonderfully helpful devices when they're working correctly, but unfortunately they can also become frustrating enemies when things go sour. There is no magic formula that can fix all problems, but as we discussed in the beginning of this series, a systematic method of attacking the issues can help you make progress when things look dim.

It's important to keep one thing in mind when you're troubleshooting potential computer problems: *Computers are total dummies and can only do what they've been programmed to do*. Of course, a computer is a very fast dummy (modern processors can execute billions of instructions in a single second), so when they make mistakes, they do so very fast - - faster than your senses (and a lot of test equipment) can detect. Complicating this is the fact that the software running the show (or firmware, software in a read-only memory) is probably undocumented (you won't be able to see the source code instructions to understand how it works), and probably has bugs of its own that can cause certain kinds of malfunctions.

Troubleshooting computer related problems can be roughly divided into two categories - - control problems (within a product), and communication problems (between products).

Control Problems

Ann was beginning to get a little frustrated with her trusty Kenwood TM-732 mobile radio. The rig had been her true blue companion for many years, and she'd even had it "opened up" so that she could participate in the MARS net during her weekend stints in the Army Reserve. But sometimes the radio developed amnesia when she needed it the most.

Last weekend it happened again. Ann punched the power button; the display lit up in its familiar amber color, and then - - nothing. About 10 seconds later, the radio display appeared showing "146.00" - - and worse, all of its memories were wiped clean. This was highly inconvenient and a little embarrassing as it happened during maneuvers. The radio had been doing this about once every month or so over the last year or so, and Ann was seriously considering getting a new rig.

This is a great example of a control problem. The internal computer (microprocessor) in the radio is having some kind of problem. What to do? Panic? No, just remember the three steps of troubleshooting:

- Inspection
- Check power supplies
- Check inputs and outputs

The Kenwood TM-732 actually has two computers that operate it. One is in the control head, and the other is in the radio box itself. The two computers talk to each other by a small control cable. The control head actually reads and stores the radio's configuration (set by jumpers) and conveys this information to the control computer in the radio itself.

Inspection of the main radio box revealed no major visible defects. The lithium memory backup battery (part of the power supplied) measured about 3.2 volts, which was plenty of voltage. (What steps did we accomplish here? Right, inspection and power supply!)

On a whim, we opened the control head (it has a computer too) and took a look. The person who modified the radio (by changing jumpers inside the control head) hadn't securely soldered one of the wire configuration jumpers on the board. This was the same jumper that enabled MARS frequencies, and it was barely making contact. So sometimes the radio would power up and think it was a MARS radio, and other times it would believe it was a STOCK radio.

That turned out to be very confusing for the processor, which was apparently keeping track of the prior jumper settings; when it was commanded to be "on" and detected a jumper change, it decided to "clean house" and erase all memory. (Remember that we won't generally have access to the software, so we often will have to infer the behavior.)

Soldering the jumper securely cured the problem and got Ann back on the air.

In short, control problems (within a radio) tend to be as follows:

- Bad jumper settings
- Incorrect power supply to the processor or one of its peripheral chips (PLL, I/O driver chips, and so forth). Don't assume that everything is running on 5 volts, as that's seldom the case anymore!
- Stuck or damaged switches. I repaired a set of Kenwood TM-741s that appeared "dead" and unable to power on. Turns out that inside the control head Kenwood used a black rubber gasket surrounding all the switches that over the years decomposed to a sticky tar-like goo. This goo corroded every switch it touched!
- Misconnected or improperly seated signal cables. (Someone may have been in the radio before you!)

Note that microcontroller chips, memory chips, and other hard-to-replace items are not on this list. Yes, they can go bad, but rarely do - - and when they do fail, symptoms are very strange indeed. *Most control problems are simple fixes*. Do not worry too much about what the software is doing. You really don't need to know, and unless you have a bench full of equipment you're not going to be able to measure what it's doing anyway.

Communications Problems

Paul Newman's famous line in *Cool Hand Luke* was "What we have here is a failure to communicate." This is indeed a common problem when two or more computers are connected together. Communications problems are best solved using the seven-layer *Open System Interconnect* (OSI) model as a source of ideas. The OSI model was invented in the late seventies as a way of helping computer designers build systems that could reasonably talk to each other, regardless of brand, model, or religious affiliation (I just threw in that last one.) The layers go like this:

7. Application: Provides uniform applications programming interface and services for software applications.
6. Presentation: Provides syntax and data format conversions, including compression of data
5. Session: Establishes and maintains connections between systems. (DNS is an example.)
4. Transport: Make sure that information is transferred reliably. Well at least sort of; some transport protocols such as UDP aren't designed to be reliable at all.
3. Network: Finds a route for data to get from point A to point B.
2. Data Link: Formats data as it gets onto the network and provides uniform services for doing just that.
1. Physical: Does the actual moving of the data. Includes wires, radio links, and like.

All systems do not implement all layers; in fact, some warp the model a little (Cisco, for example, insists on combining things into less than seven layers - - that's not a problem, as the OSI model is not a prescription for how to build a network, but merely a "reference philosophy" about building one.)

If you've stayed awake to this point, congratulations - - this can be pretty dry stuff! The most important concepts from all of this are as follows:

1. *All upper level services use lower-level (numbered) services*. A broken wire (physical layer) will stop almost any network dead in its tracks, no matter how "smart" it is.

2. *Troubleshooting approaches using this model should always start at the lowest layer (physical) and work their way up.*

Some quick ideas about dealing with this approach are as follows:

Layer	Troubleshooting Strategies
1. Physical	Make sure cables are connected and are of the correct type. (Some serial cables can be very picky!) For Ethernet interfaces, you should see an LED "link light" lit up on both ends of the wire. Don't be afraid to look for broken wires. Remember, many problems are SIMPLE.
2. Data Link	Make sure you've installed the correct device driver on host PCs and/or mobile devices. (Some devices are born to trouble; for example Prolific Technology USB to serial converters using Microsoft's built-in drivers for Windows 7 are a disaster.)
3. Network	Are the addresses set correctly for each machine? Read your system's documentation. Is the address set using a DIP switch? Software? Make sure it's right. If you're using TCP/IP to establish a connection, can you PING the remote device? (While that's often promising, it does not guarantee connectivity with a target device or system.)
4. Transport	For ham software, there won't be many settings to go wrong here. Most of the time the software is going to make choices here on its own.
5. Session	Are hosts correctly named (for those that use names)? If you must utilize DNS under TCP/IP, is it configured correctly?
6. Presentation	Usually not much you can change here; check to see if data compression settings and authentication algorithms and data match up.
7. Application	There is nothing in the actual application layer you can mess with. However, you might check that your software is configured to use the communications path and modality you are trying to connect!

Summary

We've briefly talked about two common computer maladies, control issues and communication issues. These are the two most common problems that can ail a ham installation. With a little patience, and perhaps some insight from your fellow hams, you too can conquer these problems and make the pronouncement that "computers are indeed wonderful in ham radio."

Good luck!

TOYOTA TUNDRA INSTALLATION BY HAROLD VAN DAVEER, KØHCV

When I purchased my Toyota Tundra (Figure 1) in 2007 I wanted to have more than just VHF and UHF capabilities. I wanted APRS, HF and public service scanning as well.

Figure 1

I wanted all this capability but I also had several requirements. First, the mounting of the equipment must not interfere with the normal operation of the vehicle and its controls (including cup holders). Second, it couldn't be a hodgepodge of wires and radios. Third, I didn't want to drill any holes in sheet metal. And last, it would be nice for it to be as discreet as possible for theft protection and XYL (K0JAV) approval.

After a lot of thinking and a lot of custom made brackets I built the installation you see in the accompanying photographs.

Fortunately with the exception of APRS all the radios have removable or optional control heads. APRS was not a problem since I use it only as a beacon. Once set it never requires any adjustments.

The control heads are all mounted on a hinged bracket that swings down into the center console when not in use but swings up into view when operation is desired. Its operation is seen in Figures 2 through 5

Figure 2

Figure 3

Figure 4

Figure 5

Fortunately the TM-742 display splits apart with the frequency display in one unit (on the steering column) and the controls in another unit. This unit mounts to the top of the scanner control head with double sided tape. The FT-857 control

head is at the top of the bracket. The drivers view is seen in Figure 6 and Police Officer view in Figure 7.

Figure 6

Figure 7

All the radios except HF are mounted on a platform that fits under the rear seat. This platform is shown in Figure 8.

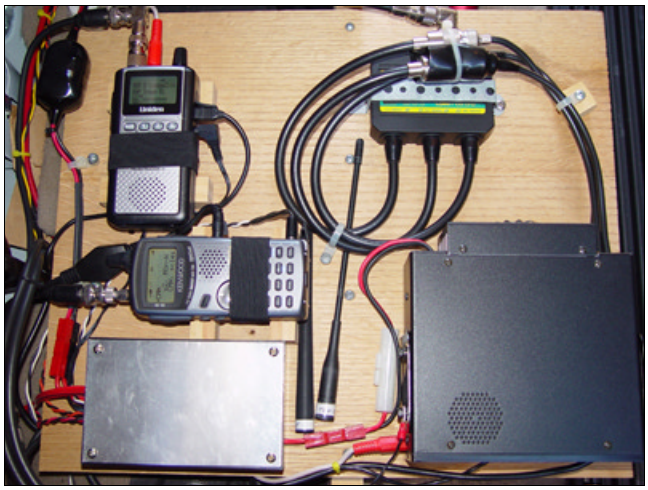

Figure 8

Starting at the lower right and proceeding counterclockwise is the Kenwood TM-742 for 2 meters, 220 and 440, a project box containing the voltage regulator which drops 12 volts to 6 volts for the scanner, the Kenwood TH-D7A(G) for APRS, the Uniden BCD-396XT scanner and the Comet Triplexer for the TM-742. Figures 9 and 10 show the rear seat up for access and down for passenger use.

Figure 9

Figure 10

At the top of figure 9 are two amplified speakers (one is a spare), a project box containing an audio mixer for the speaker and a horn relay that switches DC power to all the radios. Except for the APRS radio the audio from all the radios is mixed and fed to the Motorola amplified speaker. This speaker is mounted close to the drivers side passenger door directly behind the drivers good ear. There is a switch in the console that activates the horn relay so operation is not dependent on the ignition switch.

The HF radio, a Yaesu FT-857, is mounted on its own bracket and fastened under the drivers seat. I wanted to mount it under the front passenger seat but Toyota was already using all that space. The Sony GPS for the APRS unit is on a bracket attached to the center head rest of the rear seat.

For HF operation the FT-857 feeds a Yaesu FC-40 automatic antenna tuner mounted inside the truck fender behind the left rear wheel. Its output is fed to a 102 inch CB whip seen in Figure 11. It loads up on 10 through 60 meters but the tuner won't tune 80 meters with the whip. I have a Hustler fold over mast and coils for 10 through 80 meters that can replace the whip if so desired and the tuner will tune with the 80 meter coil.

Figure 11

You will notice two rubber duck antennas on the radio platform. These are for the Uniden scanner and the Kenwood APRS unit. With these I can remove the radios and use them as handheld units if so desired. You will also notice AA batteries on the floor mat under the platform. These power the scanner if used as a handheld away from the truck. The two handhelds are held in place by elastic bands with snaps that snap into custom cradles on the platform.

Before permanently mounting the FT-857 my long time friend and Elmer Bill, WA0CBW, and I did numerous tests with magnetic mount HF antennas to make sure the ignition noise was not going to be too bad. It turns out that the truck is very quiet on the HF bands. My only other concern was if the engine would quit when I pressed the PTT key. Fortunately, it doesn't.

I could not have done all of this by myself. Bill assisted with the installation of the main DC power line from the battery to the cab. He also helped snake the coax lines from the cab to the antennas and designed the audio mixer. He was a very good sounding board as well while I developed my installation plan.

Tom W0TS, Archie KF0OP and Andy K0KWD provided adult supervision while I drilled the holes in the bumper and mounted the bracket and whip. It was much easier with their assistance and I thank them for their help.

The antenna lineup for the other radios is as follows:

- Comet SBB224 tri bander for the TM-742 2 meters, 220 and 440
- Glass mounted scanner antenna for the BCD-396XT
- Comet B-10 dual bander for the TH-D7A(G)
- Comet B-10 dual bander for the VHF/UHF portion of the FT-857

The only trouble I've had with antennas is when the Toyota dealer ran my truck through their "complimentary" car wash and ripped the CB whip off the mount breaking the tail light assembly in the process, bending the APRS antenna into a pretzel shape and bending the tribander mount beyond recognition.

They were quick to compensate me for replacement antennas but I had to remake the custom bracket for the tribander. They also replaced the tail light assembly at no charge. I asked but never found out what happened to the "new guy" who drove my truck through their car wash.

I have used this setup for over 5 years and I will tell you that mobile HF operation is a blast. The XYL and I winter in south Texas and I have spent a lot of time on the air working stateside and DX stations. I have worked all over the world with just 100 watts from the FT-857 and the CB whip and when you say "mobile" in a pile up you almost always go to the head of the line (if they hear you).

Harold Van Daveer, K0HCV
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Olathe, Kansas 66062
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Announcing
The JCRAC First Annual HF Mobile Shootout
Johnson County Radio Amateurs Club
WØERH
Public Service
Date: Friday, June 13, 2014 at 6:00 PM
Test Frequency: 7.235 MHz
Location: Overland Park Christian Church
7600 W 75th St, Overland Park, KS 66204
RULES:
Any street-legal vehicle
Any road-worthy antenna
Total height not to exceed 13' 6"
Cap Hat diameter not to exceed 8'
The field behind the church, where we all park, will be the Test Range. At one end of the Test Range will be a marker that indicates to each participant where they will drive to and park for the duration of their own particular test. Once parked (you may leave your vehicle running or not) and oriented in any direction you like, a Bird Watt Meter will be inserted between your mobile antenna and your transceiver. You will be asked to dial your power back to 20 watts as measured on the Bird Watt Meter. Once that is accomplished, you will be instructed to press the PTT button on your microphone (or how ever you wish to key your transmitter). A hand will go up indicating to the receive site coordinator that you are transmitting. When the hand goes down, you stop transmitting. This will be repeated two more times to ensure accuracy. Transmit duration will be around 3-4 seconds. When this process is complete, the Bird Watt Meter will be removed and the next participant will drive to the line to repeat the procedure on his/her vehicle. At the receive site (approximate avelengths away or 260 feet) will be a Spectrum Analyzer which will measure your received signal strength. Whoever ends up with the highest recorded signal strength will be declared the Top Gun for 2014 and receive a plaque to that effect.
Questions prior to the test should be addressed to our Shootout Coordinator, Lon Martin KØWJ.
Email him at k0wj.Lon@gmail.com

Johnson County Radio Amateurs Club, Inc.
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Shawnee Mission, KS 66201