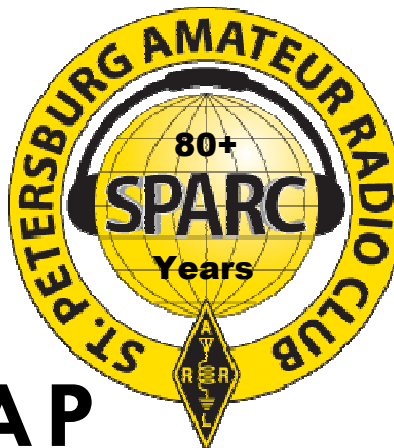


P.O. Box 2217

St. Petersburg,

Fl. 33731

[www.sparc-club.org](http://www.sparc-club.org)



Repeater Frequencies

147.060 224.660 444.475

WA4AKH Repeaters

W4GAC Club Station

W4TA Contest Group

# SPARC GAP

## Summer 2016



### A FEW WORDS FROM OUR PRESIDENT

The ARRL National Convention, aka Orlando Hamcation® was the destination of many SPARC members in February. There were lots of goodies for everyone, and our traditional lunch time photos appear in this issue. I bet I purchased the only antique bottle of *Edison Battery Oil* in the place.

Our April Fool's Day meeting sure fooled me. Usually our attendance falls off after Easter, as our snow birds begin their migration north. We must have set a new record. A standing room only crowd, three dozen donuts consumed, three packages of cookies annihilated, and nearly 50 cups of coffee enjoyed. I can only assume it was the excellent program on PSK given by Dave, KR4U that was the star attraction.

The tower permit has been issued. The station engineering team is finalizing construction plans. Work has begun on refurbishing the tower base and accessories. Shortly the foundation will be in place. Look for announcements for an antenna party. Our primary HF operating position now features a P3 Panadaptor. We should see our average contest scores begin to rise soon.

This year's Field Day was one for the books. We had the usual technical issues which were quickly resolved. The food was plentiful and good. Enough rain to make things interesting. And a nearby lightning strike that took out the 7.2KV primary feed to our FD site. No problems...we're on emergency power. Read all the exciting details in this issue.

We're also looking for some direction in setting up our weather station. We would like to cast our data to multiple web sites. If you have some expertise with these systems, give me a shout.

Finally we note the passing of members Pete Secrist, WB2SUN; Bruce Roggenkamp WD9FMI; and Ernest Gregorie, AA1IK. RIP OM.

73,

Bob – N2ESP

- P.S. A funny for this issue: I stayed up all night to see where the sun went. Then it dawned on me.

- 



## Field Day 2016, The President's Perspective

Our effort began Friday morning as the tower and antennas were set up in anticipation of RF pulsing through the coax. By the time field day ended, we had erected a portable tower with a triband beam and Armstrong rotor and a 40/80 dipole. Two additional vertical antennas for HF, a halo for 6M and two circularly polarized beams for satellite operations. The GOTA station used a Buddi Pole for 20M.

Saturday morning saw the erection of the large canopy (furnished by Mike K4ZPE) in the patio area to keep or Chef de SPARC, Dee, N4GD in the shade and away from the rain drops. Power was furnished by two Honda EU200i generators, a solar panel and batteries.

Our primary station, W4TA, consisted of a Ten-Tech Jupiter on CW an Elecraft K3 for the phone station, and an additional K3 to swing between CW and phone as needed. A triplexer made by Dave, KR4U was used to feed the beam for simultaneous operation on 15M and 20M. All the HF radios were connected using an antenna patch panel built by John, KI4UIP, which permitted us to connect any radio with any antenna. Logging was done using Write Log on laptop computers donated by Johnnie, W4TSP.

A cooler full of cold drinks was provided by the club while a keg of craft German style beer was provided by Walt N4ELH. The club also furnished burgers and dogs which were grilled to perfection by Dee, N4GD. Club members furnished chips, salads, beans, slaw, chicken wings, mac & cheese, cookies, bagels and more.

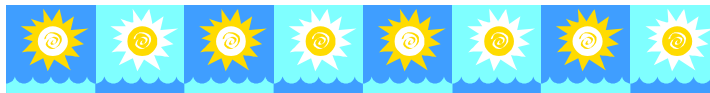
We received a beautiful framed proclamation on Field Day from Pinellas Park Vice Mayor Rick Butler. We were also visited by St Petersburg Fire and Rescue Emergency Management representative Amber Boulding. We explained and demonstrated to Amber how amateur radio works with city and county government in the event of an emergency. We also received a visit from the Salvation Army Canteen unit with beverages and snacks. Thanks for your support.

Our GOTA Station was furnished by Pete, KJ4FAW. Due to the inclement weather, we only had a few GOTA operators, but those folks were able to spend quality time at the station.

Our satellite station was furnished by Tom, NY4I. Due to weather and a technical issue, QSB managed to foil our last minute bid for satellite QSO points.

Our 6M station was furnished by Paul, KC4YDY. Unfortunately the band never opened, and Paul was only able to make contacts with the usual group of locals around the bay.

Around 4PM local time, lightning took out power to our building. No problem...the radios and computers were on emergency power. Oh well, No AC. No lights. Just like the old days. A pain, but no problem. It turns out a short occurred 6 feet underground in the primary feed to the transformer serving our building. The crew from Duke Energy showed up around 7:30PM, located the fault and began digging. And I do mean digging. When I went out to see what was going on, all I saw was the top of the technician's hard hat in the hole. And he was stand up! With the fault removed ant the cable spliced, all that remained was to replace the fuse feeding the transformer. Have you ever experienced fuse blowing protecting a dead short on a 7,200 volt circuit having virtually an unlimited current source? Think lightning bolt landing at your feet. **KA-BOOM**. Damn that was loud. It turns out there was a second fault on the cable feeding the transformer. Thanks to the dedication of the Duke Energy crew, the power was restored about 2:00AM Sunday morning.



## Continued from page 2

NY4I sent a number of radiograms Saturday night on the Eagle net. Late Saturday night, Section Manager Darrell, KT4WX dropped by in his ten county tour of Field Day sites in West Central Florida. Darrell indicated he had received our radiogram.

Sunday's activities were as one would expect. More radio, breakfast, and starting to clean up in anticipation of a warm shower. By 4:00PM, the site had returned to normal and another successful field day is in the books. Preliminary reports indicate 597 CW QSOs, 334 Phone QSOs and total point count of 1529.

A big thanks to all the folks that made this year's Field Day a success. I know I had fun, and I saw a lot of folks smiling as well.



Order your SPARC Badge from Tom AI4QP

# Amateur Radio Week



**RICK SCOTT**  
GOVERNOR

## AMATEUR RADIO WEEK IN FLORIDA

WHEREAS, Florida amateur radio operators are celebrating over a century of human voice broadcast over the airwaves; and

WHEREAS, the amateur radio station becomes a critical communication link in the event of a disaster, and volunteer radio operators provide situational awareness to emergency managers during and after disasters; and

WHEREAS, the State of Florida recognizes the services Florida's amateur radio operators provide to our many emergency response organizations, including the Northern, Southern, and West Central Florida sections of the American Radio Relay League, under the Amateur Radio Emergency Service (ARES); and

WHEREAS, amateur radio operators have further demonstrated their value in public assistance by providing free radio communications for local parades, bike-a-thons, walk-a-thons, fairs and other charitable public events throughout Florida; and

WHEREAS, the State of Florida recognizes and appreciates the diligence of these amateur radio operators who also serve as weather spotters in the Skywarn program of the US Government Weather Bureau in Florida; and

WHEREAS, the American Radio Relay League is the largest organization for amateur radio in the USA; and

WHEREAS, the American Radio Relay League Amateur Radio Field Day will take place on June 25-26, 2016 and is a 24 hour emergency preparedness exercise and demonstration of the radio amateurs' skills and readiness to provide self-supporting communications without further infrastructure being required;

NOW, THEREFORE, I Rick Scott, Governor of the State of Florida, do hereby extend greetings and best wishes to all observing June 25-26, 2016, as Amateur Radio Week in Florida.



IN WITNESS WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Florida to be affixed at Tallahassee, the Capital, this third day of June, in the year two thousand sixteen.

  
Governor

Short Overview by Cliff Michaelsen

## EXTENDED RANGE FORECAST OF ATLANTIC SEASONAL HURRICANE ACTIVITY AND LANDFALL STRIKE PROBABILITY FOR 2016

(as of 14 April 2016)

By Philip J. Klotzbach<sup>1</sup>

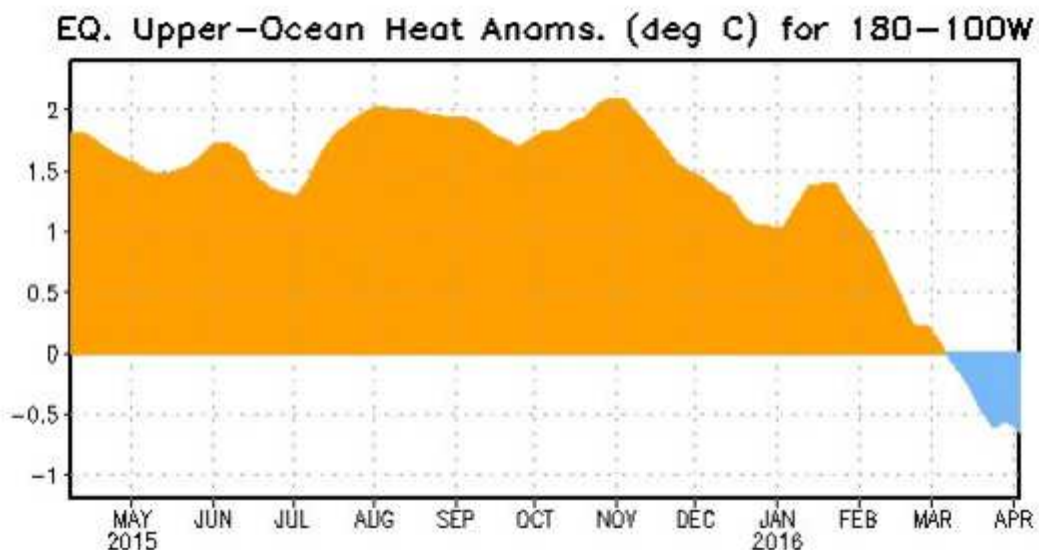
William M. Gray

CO. State Atmospheric Sciences

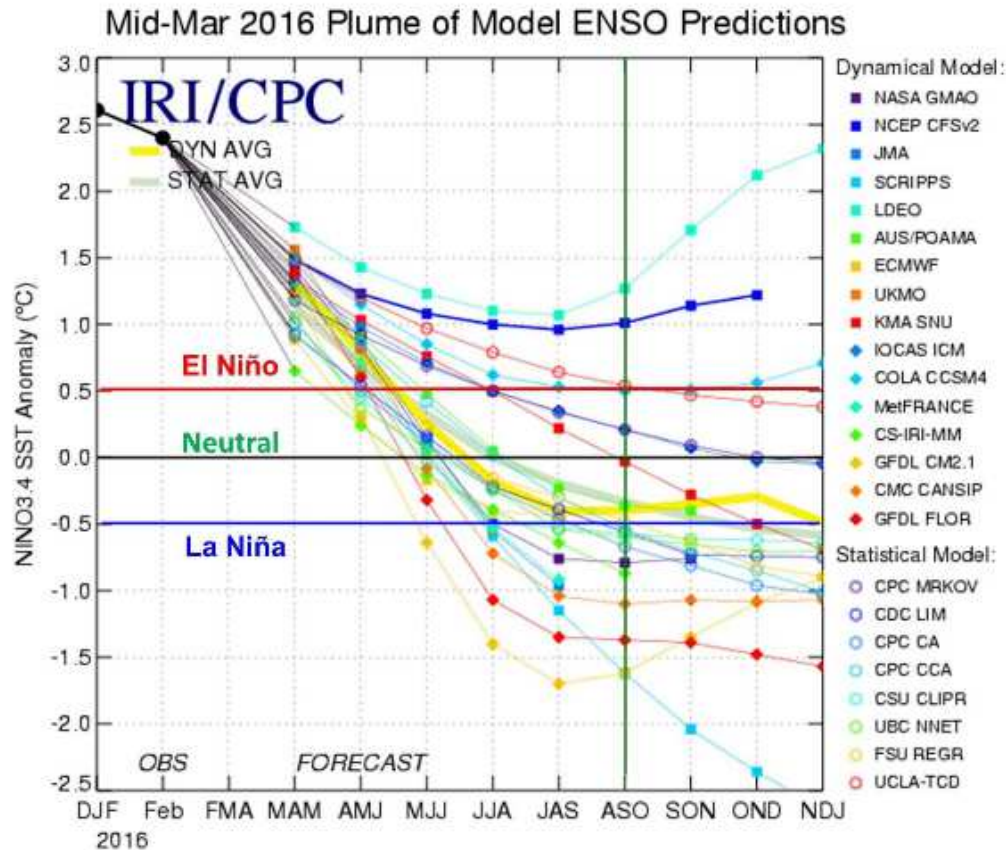
We anticipate that the 2016 Atlantic basin hurricane season will have approximately average activity. El Niño (warmer Pacific ocean temperatures associated with decreased Atlantic hurricanes), is likely to become cooler by the peak of the Atlantic hurricane season. Currently, the tropical Atlantic is relatively warm, the far North Atlantic is quite cold. At last analysis, it looks like a near-average number of major hurricanes making landfall along the United States coastline and in the Caribbean.

Looking at the tropical systems in detail, we estimate that 2016 will have 5 hurricanes (median is 6.5), 12 named storms (median is 12.0), 50 named storm days (median is 60.1), 20 hurricane days (median is 21.3), 2 major (Category 3-4-5) hurricane (median is 2.0) and 4 major hurricane days (median is 3.9). The probability of U.S. major hurricane landfall is estimated to be about 90 percent of the long-period average. That is an indication of a much more active season than the last 5 years.

**Evidence of ocean cooling in the Pacific... La Nina (cooling) taking place. Real Data not modeled.**







Simply put in the graphic above, many ocean temperature models or forecasts demonstrate significant decline in El Nino (cooler Pacific waters) in future months. More evidence for concern this year, not to be without your hurricane plans. Some items not to forget:

1. Sign up for a shelter
- 2.
3. Have non-perishable foods ready
- 4.
5. Secure your home now
- 6.
7. Make a small bag "to go kit"
- 8.
9. Have papers in order (insurance, pet vaccinations, phone numbers of contacts, Cash money \* ATM's may not work)
- 10.
11. Have enough medications for one week at a minimum
- 12.
13. During hurricane season, keep your "get away" vehicle at least half full at all times.
- 14.
15. **Now is the time to check the FEMA web site for complete [hurricane guidance instructions](#).**

## The "Go Box," a.k.a. EmComm Box by Kyle N4NSS

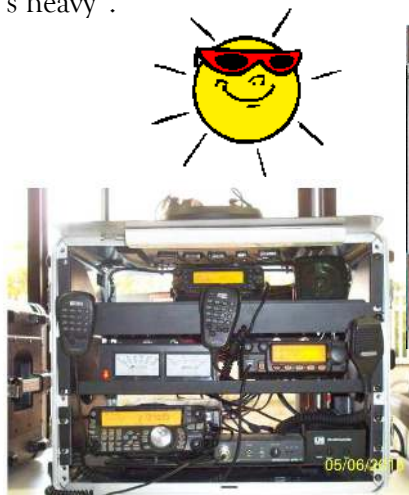
First up was Clayton KJ4RUS. He used a U6 size equipment case, that's the one to his immediate left.



KJ4RUS - Back of GoBox

KJ4RUS Front of GoBox

Next up was Andy KI4VOS. His box, second over on his left, was created using a U8, which was stuffed to the hilt and as stated "It's heavy".



KI4VOS Front of GoBox



KI4VOS Back of GoBox

Third and last is Udo KF4KUL (Sorry about the bad focus.) Udo used a U4 and a U6 case stuffed with all types of capabilities, even APRS.



KF4KUL GoBox U4 and U6



KF4KUL GoBox APRS etc.



## NY4I Visits ARRL HQ

All avocations have their Mecca. For pilots, a visit to the Oshkosh fly-in is required; for race fans, the Indy 500 is a required pilgrimage. As a ham, we have two places that we must go to at least once in our ham radio journey. The first place is the Dayton Hamfest, and second, the ARRL headquarters in Newington, CT. This is a story about my first visit to the ARRL HQ and the W1AW station back in 1999.



**Figure 1 ARRL Headquarters Building**

Ever since I became a ham, W1AW had a special meaning. After all, W1AW represents the ARRL—our national amateur radio organization. The politics of it aside, the ARRL headquarters holds a special place in the lore of amateur radio. The place exudes ham radio history. As you drive down Main Street in Newington (a suburb of Hartford, CT), you go from a small downtown into what appears to be a residential area of town. Then just as you start to think you are lost, you see them: **towers!** The brick building along Main Street which houses W1AW is the first sign of something familiar to hams everywhere. Then, a look further down the street reveals a large, two-story building which houses the ARRL offices. Turning into the parking lot you see the requisite antennas on the vehicles, the ham license plates, and the omnipresent towers of W1AW. On this day, I arrived at about Noon for the tour of the building. After a quick tour of the amateur radio museum complete with equipment from all eras of amateur radio, someone came out to give me the tour of the office building. The building, constructed in the early 1970s, is a Spartan building with the look and feel of any office building. But in this building, there is one major difference: While most buildings like this usually house insurance companies or mortgage companies, this one is 100% dedicated to amateur radio. As I went through the many departments I kept thinking how luck these people were to make their living supporting a hobby. One interesting observation came when I stopped by the contest desk. On the wall, there is a standard business looking chart. Only instead of sales forecasts or new client data, this one had a graph of contest entries by year. To see a chart that we associate with typical “business” functions used to display something that we choose to do on the weekends was indeed enlightening. It shows that support of our hobby on this level is really treated by the men and women of the ARRL as a serious profession.



Continued on page 9



## Continued from page 8

Another area I visited was the ARRL Lab. I now know why the projects in *QST* and the handbook look so good. Besides all the electronic test equipment, they have a full machine shop for fabrication of parts. I saw table saws and the like in the lab. So, the next time you tackle a project in *QST* and it does not look quite as good as it does in the picture, do not feel bad. They really have the equipment to do things right. Just beside the lab is an RF screen room where the reviews that appear in *QST* can be seen. On this day, surrounded by amazing test equipment was an ICOM IC706MKIIG radio going through the paces (remember this was 1999). Based on all the equipment here, the lab can really perform through tests of the equipment and provide proper recommendations on just how well equipment performs in the real world.

I continued my tour with a walk through the publishing sections of the ARRL. The ARRL really is a membership organization and a book publisher. At the time of my visit, they had just as much space dedicated to publishing *QST* and books as they do dedicated to other member services. Interestingly enough while I saw PCs most everywhere, I could tell when I entered the publishing side because I started to see Macintoshes on the desks (frequently used by the publishing industry).

My final stop was the ARRL-VEC area and the outgoing DX bureau. The most notable thing about the VEC was that all the test material is in a locked cage just to make sure the tests are not compromised. The DX bureau, as you would expect, had QSL cards everywhere. That completed my tour of the office side of things. The final stop on this day was the W1AW station across the parking lot.



As I went into the building, I noticed the lobby has a brief history of the station. You can see pictures of the various stages of the building. The layout of the station is quite impressive. When you walk into the area, you notice a large console in the middle, which houses some computers and audio equipment. Behind that desk is an environmentally controlled area that houses the W1AW transmitters used for HF bulletins and code practice. The gear during my visit was Harris commercial HF equipment and Harris one kilowatt amplifiers. There were only two pieces of equipment that look like *normal* ham gear: a Ten-Tec HF radio for 20 meters along with a Command Technologies amplifier. When these stations operate on all bands on CW, it is really interesting to see all the LED power meters on the HF rigs sending code in unison. The next area to see was the operating “studios”. There are three studios: one houses packet and satellite equipment, one had some HF equipment and the last has more HF equipment. The major manufacturers frequently donate equipment to the station to ensure each is well represented at W1AW. After the tour and showing my license to the operator at the station, I sat down to operate a Yaesu FT1000D on the 20-meter beam at 120 feet. I turned the rotor to the West to see what was on the band but propagation did not seem particularly good this day, but that would soon prove deceiving.

Continued on page 10

I put out a simple CQ on 14.260 MHz USB and that is where I sat for the next 2 ½ hours. If you have ever heard W1AW on the air, you know the station attracts quite a following. Many people said this was the first time they had spoken to W1AW. I really did not make a contest out of it, choosing more to rag chew with people. I spoke to quite a few mobile stations including a truck driver in Kentucky running 1000 watts mobile—he really was the loudest signal on the band. As I logged each entry in the log, I reflected on my own attempts to work W1AW back when I first started. It was the ham radio version of a celebrity call sign. I recalled being very happy to put the station in my log. On the other end, there was a guest op visiting the W1AW having just as much fun as I was having now. Towards the end of my operating time, I turned the beam towards Europe and heard a few pile-ups. One Russian station was on and I simply gave my call as “Whiskey One Alpha Whiskey. He came back to me and we exchanged information. When he came back to me, he said “W1AW...Is this the ARRL?” This goes to show the notability that the ARRL and the W1AW call sign have in the world. After my time at the microphone, it was time to close up, as they had to get the stations on the air for code practice. I completed my log sheets, submitted them to the operator and hung around for a bit while the code practice was played. I then took a stroll outside to see the *steel trees* outside. W1AW had four towers at the time. The tallest one was 120 feet with at least 8 Yagi antennas on it. There were a few 65-foot towers with various HF antennas. Another tower has the satellite antennas on it as well.

All in all, this is quite the place. I thank each and every person at the ARRL for his or her assistance and for the work they do. I recommend every ham make the trip to Newington at least once and see this amazing place. If you are not yet a member of the ARRL, I encourage you to join to support this organization. Their advocacy of amateur radio ensures it will continue for another century. They really do so much work that makes our hobby possible.



## We pounded in ground rods and then got smart! By Ed NZ1Q

Sparky (a.k.a. Kyle, N4NSS) is always a big help with projects around the shack. Recently, Kyle and I completed some antenna work. However, still on the list of things to finish was a ground system around the house for proper lightning protection.

I planned on using a number of ground rods right outside where the bulk head single-point-ground comes through the window (see my article in the [last Spark Gap](#)). With that in mind we started pounding in 8 foot copper clad ground rods (thank you Home Depot).



Needless to say, we took turns pounding the rods into the sand with a 10 lb sledge hammer. Kyle would pound for a while and I would hold the rod with long pliers. Then it was my turn to pound. After 3 or four rods we were about to abort our plans and go for a much smaller ground system than originally planned.

Not being happy with a so-so ground system, the light-finally-dawned-on-marble-head, as they say. Home Depot rents all kinds of tools, so I went to look at jackhammers (big impact drivers). I started with the size 27 demolition hammer which had an attractive rental price. Yes, the hammer weighs 27 pounds. They seem to size them by weight. The rental person said that would not work. The reason is because it did not have the tool-end to put in the hammer for ground rods. I had thought I could just stick the rod in the hammer's chuck, a "no-go" on that idea.



Eventually we found the next size up, a "Small Breaker," Makita HM1307CB Demolition Hammer with a powerful 14.0 -amp motor (yes 35 pounds to balance up in the air on an 8 ft rod, while wildly vibrating!). This hammer had the perfect tool-end, cup shaped to fit over the rod. If you rent one of these puppies, also rent the long heavy gauge extension cord.

See: [Home Depot Rental](#)

Continued on page 12



We took turns at the jack hammer with one of us on the ground and the other on the ladder. We would both hold the hammer while the rod was going in. It was not too difficult to hold and only took 2-3 minutes for each rod. There are now a total of 11 ground rods that encircle the house with #6 copper wire between all the rods except the main 4 rods at the bulkhead single point ground that are strapped together underground.



We were glad we used the 35 lb hammer because it seemed that at 4 ft down, wherever we placed a rod there was a tough layer we had to break through. We actually put a good deal of our weight on the hammer to get past that point. Otherwise, the sand only required the weight of the hammer which went quickly.

Ground ohm measurements were taken by using a clamp-on ground resistance measuring instrument. The device gave measurements close to 0.5 ohms to ground at all the important locations, which is considered a good ground. I used the AEMC unit, which was borrowed from a friend.

Continued on page 13





[aemc.com](http://aemc.com)



[en-us.fluke.com](http://en-us.fluke.com)



The copper strapping and couplings are from [Georgia Copper](http://www.gacopper.com) (www.gacopper.com) and were put together with Jet Lube SS-30. This grease is 70% copper dust. The grease prevents corrosion and the copper in SS-30 makes it very conductive. The idea is that trapped copper in the joints makes a very good contact between both metal surfaces (cleaned of oxide first) as the clamps are tightened down. As an alternative, Cadweld can be used in place of clamps and produces a permanent, exothermic connection to a ground rod ([DX Engineering](http://www.dxe.com)). It is a welded connection that thermally fuses the wire to the ground rod with copper.

Ed Erny NZ1Q  
Kyle Jeske N4NSS

We are on the Web!  
[www.sparc-club.org](http://www.sparc-club.org)

## Upcoming Events (\*) and Contests

TARA Grid Dip RTTY/PSK Contest 08/06  
10-10 Summer Contest SSB 08/06-07  
SKCC Weekend Sprintathon 08/13-14  
SARTG Worldwide RTTY Contest 08/20-21  
North America QSO Party SSB 08/20-21  
PODXS 070 Club 80 Meter Sprint 09/03-04  
ARRL September VHF Contest 09/10-12  
CQ Worldwide DX Contest RTTY 09/24-25  
TARA PSK Rumble Contest 10/01  
Makrothen RTTY Contest 10/08-09  
FISTS Fall Unlimited Sprint 10/08  
10-10 International 10-10 Day Sprint 10/10  
CQ Worldwide DX Contest SSB 10/29-30  
ARRL Sweepstakes Contest CW 11/05-07  
(\*) SPARCFEST Hamfest 11/12  
10-10 Fall Digital Contest 11/12-13  
ARRL Sweepstakes Contest SSB 11/19-21

**Note:** Contest information for any month or the entire year is readily available, simply **GOOGLE WA7BNM** and select the contest calendar.



Anyone interested in operating any contest  
please contact Tom NY4I at 727-437-2771

## Station Report by David KR4U

Both of our stations are fully operational. We only borrowed one Elecraft K3 radio and a few small items for our field day setup but they are all back in place at this time. The Ten-Tec Jupiter was used only on CW for the entire event. One Elecraft K3 was used on SSB only and the second K3 was used on SSB/CW. This combination of our main radios worked very well for us with a minimum amount of cross radio interference. Our station team sincerely hopes the tower project will move forward in the near future, we have some great contests coming up for the fall/winter season. On a slightly different note, if you have been on HF lately you must have noticed how poor the bands have been in recent weeks. This is an excellent time to try some soundcard digital modes such as PSK, JT-9 or JT-65. These modes are very efficient and can provide good QSO's under poor conditions.

73 de David KR4U Station Trustee

## SPARC Meetings

First Friday every month, 7:30 pm

\*Testing : Third Tuesday every month 6:30 pm

at DMI

6699 90th Ave. N. Pinellas Park

\*contact Mike Scott K4ZPE at 727-492-6454

Some Members meet for Breakfast

Every Saturday, 7:00 am at the

Biff Burger 49th St. & 38th Ave. N. St. Petersburg

### SPARC Purpose:

1. To further and promote the social benefits and technical advancement of the radio arts.
2. To acquire, organize, establish and maintain facilities for social and emergency communication, both mobile and stationary.
3. To assist and cooperate with authorized agencies in any emergency of local, state or national scope.
4. To further fellowship among radio amateurs, potential radio amateurs and other parties interested in amateur radio.

## ELMERS

<u>Specialty</u>	<u>Name</u>	<u>Call</u>	<u>Contact Information</u>
Digital, CW, and Antennas	Dave Trewin	KR4U	trewins@aol.com
PSK	Dave Trewin	KR4U	trewins@aol.com
RTTY, Repeaters	Ron Hall	KP2N	kp2n@arrl.net
HF, 10-10	Leslie Johnson	WA4EEZ	wa4eez@verizon.net
Classic Radio Operation	Dick Keller	KF4NS	kf4nsradio@verizon.net
New Ham Elmers	Kyle Jeske	N4NSS	n4nss@arrl.net



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## Welcome To Our New Members

Russell W McIntire KM4QNY

John C Hook KE4VPK

Paul M Krahmer KA4IOX

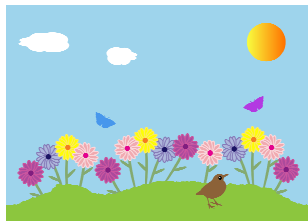
Bernie G Latzy KB3HBQ

David C Hallam KW4DH

James J Janota, Jr K9FBA

Robert J Giglio NB2G

Kimon D Ballis KM4TOU



Udo W Visintini KF4KUL

Janice E Lentz K4IJK

Mary JO Place N2MJP

John Fleming, Jr



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### Vice President

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### Secretary

Ron Graham KK4KRC

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### Repeater Trustee

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### Club Station Trustee

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W4TA

David Trewin KR4U

Bob Wanek N2ESP

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