

Brandon Amateur Radio Society

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Chairperson / Champion Needed for Field Day Effort

Scott Irwin (W8UFD)

Field Day is typically the club's biggest event of the year. Aside from operating, it is one of two times the whole club gets together as one group to have food and fellowship. This year, COVID-19 presents a unique challenge as local and state physical distancing requirements will impact how field day will be done.

According to [this post](#) on the ARRL website, the ARRL continues to monitor the situation, following the guidance and information from the Centers for Disease Control (CDC). They encourage clubs and individuals to think outside of the box and adapt. "Due to the unique situation presented this year, this can be an opportunity for you, your club, and/or group to try some-

thing new," ARRL Contest Manager Paul Bourque, NISFE, said.

Mickey Baker (N4MB), Southeastern Division Director, echoed this message in an update to division members sent on April 11. He wrote that he received numerous rule change requests and that "after polite debate" the ARRL Programs and Services Committee elected to leave the rules as published in place with no modification. "Field Day is designed to be an exercise for each amateur, group or club, to measure their adaptability - their capacity to respond to events and circumstances," he wrote. "Therefore, the rules as published will not be changed and everyone should adapt their effort to circumstances" while following local guidance.

It's a tall order to do an "as is" Field Day event should the physical distancing orders be lifted. One must secure a site

(and get a permit if it is in a County Park), ensure there is shelter, coordinate stations for CW, Voice, Digital, and GOTA, publicity, and operators.

How should BARS adapt? The club needs someone to champion the endeavor this year. If you have ideas or want to shape the club's efforts please reach out to Dana Perrin (KM4DTJ).



Photos by Scott Irwin

April Meeting Has Gone Virtual!

Grab a doughnut and a cup of coffee and join us for our monthly meeting. This is your change to be on the refreshment committee (hihi).

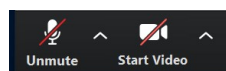
The business meeting will start at 7:30 PM and a program will follow.

Click [here](#) to register. After completing the form you will receive an e-mail with instruc-

tions to join using your computer, Android/Apple Device, or telephone.

The virtual meeting room will be open at 7:00 PM so you can test your setup or get technical help.

Note: Upon joining all audio will be muted to prevent background



Next Meeting

April 16, 2020

7:30 PM

This meeting is virtual. Register [here](#).

Bring a Friend!

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From The President's Desk

Dana Perrin (KM4DTJ)

I'm sure you have been impacted by the recent events and the current Stay At Home order from the State of Florida. I truly hope you and your families are safe and healthy.

During this time of isolation, I have found time to contact distant family members using social media and digital media that I had never used before. Our last BARS monthly meeting in March was held by radio net in lieu of a physical meeting at ARISE. I think the radio net worked fairly well! One of the comments I heard on this net was that members were

missing the contact and collegiality of the Breakfast Meetings which have all been canceled. I hope you were able to participate in the Virtual Coffee Hour on Wednesday, April 8th at 7pm using the Zoom computer interface. We are also planning to use Zoom to conduct the the April monthly membership meeting. You will learn more about this if you read your e-mails and this newsletter. I'm looking forward to this meeting. By the way, I used Zoom to contact two of my sisters in distant states. It worked very well!

I will close by asking again for a Team Leader to lead our efforts this June with the ARRL Field Day. If you have any interest in this or if you would like more information, please let me know. If there is a residual effect of physical distancing which impacts how we hold meetings, we may have to be creative in our efforts to participate in field day. I'm sure this will be a topic of discussion at our April meeting. I hope to see and hear you then!

"The way a team plays as a whole determines its success. You may have the greatest bunch of individual stars in the world, but if they don't play together, the club won't be worth a dime." - Babe Ruth

**APRSdroid
let's you see
APRS and
beacon your
position
using your
Android
phone.**

Mobile App of the Month: APRSDroid

Scott Irwin (W8LFD)

As promised, Android users get the App of the Month spotlight this month as we look at APRSDroid.

APRSdroid allows you to view and send APRS position data using your Android phone or tablet. By tapping an item on the screen you can see extra detail that it provides. For example, you can get current weather data from weather stations,

offset and tone information from repeaters, and even voice frequency information from mobile stations.

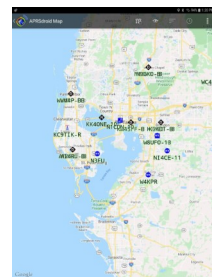
You can also send text messages to stations (although you may not get a reply since a lot of people don't do this).

In addition to using the internet to connect, you can use a Bluetooth enabled TNC connected to a radio or an audio cable between your phone and radio.

There is even a version that works with offline maps so you can use it when in areas with no cellular or WiFi connection.

The application is free and open source. You can download it from <http://www.aprs.org/> or support them by purchasing the [Google Play version](#) (you will get automatic updates).

Photo by Scott Irwin



Homebrewing Hams: 24GHz Transverter

Tony Stone (N4TAS)

Experimenting has been a fun part of ham radio for member Tony Stone (N4TAS). Pictured to the right are two transmit and receiver converters (transverters). Transverters are used to convert a received signal on one frequency to another and are often used in conjunction with HF radios to add

6 meter or other band capabilities.

In this setup, each converter is connected to a Yaesu FT-817 radio on 435MHz. The converters are used as a pair - they receive on 435 MHz and retransmits it hears on 24GHz. The other convert picks up the 24 GHz transmission and converts it to 435 MHz so the radio can hear it.

He built these a couple of year ago and has shown them at AREU. Want to know more? Tony has volunteered to describe and demonstrate them when we are able to meet in person. Watch your e-mail and the newsletter for details on when it will happen!

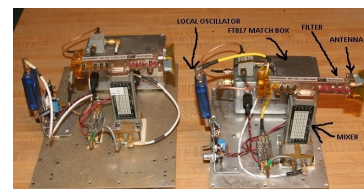


Photo by Tony Stone

Solar Weather Corner – Connecting Amateur Radio and Astronomy

Kelly Anderson (KE4GS)

Last month the subject was the Sun's peculiar alchemy of nuclear fusion, how that creates the Solar Wind (a stream of charged subatomic particles), and how all that effects HF propagation.

I promised that I'd chat about "coronal mass ejection" (CME) events, so here it is. To the right is an image of what one of these massive events looks like. That is, looks like to an appropriately filtered camera and telescope. Do I have to warn you again to NEVER LOOK AT THE SUN WITHOUT PROPER PROTECTION? No, I didn't think so.

Our Sun is an incredibly dynamic nuclear explosion. The heat caused by the crushing gravity at the core has created a chain reaction where gasses (mostly hydrogen) are being fused into Helium and a few other elements. This superheated soup of atomic parts and pieces, called "plasma" eventually makes its way to the surface of the Sun and it burps. Yes, we could call it something else, but this is a family newsletter.

The magnetic forces at work in the Sun are incredibly strong and highly dynamic. Sometimes these lines of magnetic force get kinked, much like a Slinky does if you mistreat it. These kinks can cause an enormous bubble of plasma to be ejected from the Sun at more than a million miles per hour. Since we're about 93 million miles away, we can do the

math and determine that, if the CME is heading in our direction, it'll get here in a little less than 4 days.

Because CMEs are thrown out in all directions, the vast majority miss the Earth, but every once in a while we get hit. Then what happens?

Well, the CME plays havoc on our protective magnetic shield, the "magnetosphere." This 36,000-mile high envelope protects us from the worst effects of the solar wind. Without it, life could not exist on our planet, except maybe at ocean depths. Even during the strongest CMEs the magnetic field protects us from the vast majority of nastiness, but astronauts would not be so lucky. In 1989, a solar storm exposed astronauts in the Mir space station with their maximum allowable dosage in a few hours! During that same storm the CME knocked out the Hydro-Quebec power grid, and 6 million people were in the dark for nine hours.

Most CMEs aren't that powerful, but in 1859 an amateur astronomer, Richard Carrington, observed a series of solar flares that created the granddaddy of CMEs. The resultant storm is known as the "Carrington Event." The effects of this storm striking the Earth were spectacular. The aurora was seen as far south as Hawaii and the Caribbean. Telegraph services were completely knocked out, and telegraph operators reported receiving shocks from their keys. Telegraph paper actually caught fire!

Imagine what would happen today if we were struck by such a CME. We are so much more dependent upon vulnerable technology that it wouldn't be pretty. GPS satellites would likely be shut down, if not destroyed. The same with communica-

tions satellites. The international air traffic control system would likely be severely disrupted.

Cell phones? Fahgittaboudid. Millions, if not billions would be out of power and communications for who knows how long?

So what can we do about it? Robust shielding would help a lot, and some particularly important equipment has that (here and there) but it's prohibitively expensive to do it for everything. For now, the most effective way to deal with CMEs is getting a few hours warning which allows us to shut down and disconnect critical equipment, much as we Hams disconnect our radios and antennas in advance of a thunderstorm.

On the bright side, CMEs give us spectacular Northern Lights (Aurora Borealis). People in the Southern Hemisphere get a mirror image of ours, called Aurora Australis. There, I've got you speaking Latin.

How often CMEs happen? During the Solar Minimum (like, right now) we can expect to observe about one every five days. During Solar Max, the number is more like three per day. But remember, the vast majority don't hit us. If you want better warning than that, then check out the NWS Space Weather Prediction Center's web site: <https://www.swpc.noaa.gov/products/alerts-watches-and-warnings>.

The link between Amateur Radio and Amateur Astronomy is closer, and more important, than most people realize. Keep looking up (but not at the Sun without protection).

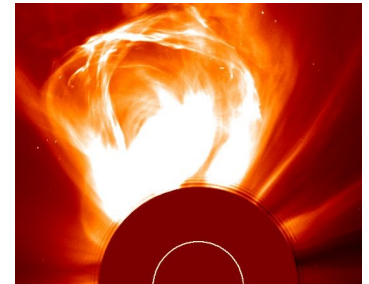


Photo by The Climate Weather Blog
blogspot.com

...the most effective way to deal with CMEs is getting a few hours warning which allows us to shut down and disconnect critical equipment

“No Service” on your mobile phone may not be what you think...

Tale of Two SIMs: One Ham’s SIM Swap Story & How to Avoid It

*Brian Moran (NSADG)
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On a recent Sunday afternoon at about 3 pm local time - 2300z - my cellular phone started to display “No Service” in the usual location of the network name and signal strength. I was at my computer at the time, and thought it odd. I check my email like a nervous tic, and with alarm noticed that I was being warned by my email provider that I'd logged in “using my phone” from a location in California. Unfortu-

nately, I was sitting at home near Seattle. I immediately suspected what this was about - that I'd just been [SIM Swapped](#) by someone attempting to take over something in my digital life. My suspicion was confirmed when I saw additional messages in additional email accounts reporting attempted access to other financial sites.

If you use any type of online service, you're often asked to provide your cell phone number so you can be sent security messages to verify your identity and intent. A code is sent via text

message, or sometimes a robot voice call, and that code is typed in addition to a username and password to secure a bank account or other some other important login.

(Continued on next page)



Photo by pmgimg.com

New Member Spotlight: Avi Zamites, NIKSP

Scott Irwin (WBUF0)

During our last repeater meeting we accepted two members into membership. One of them was Avi Zamites, NIKSP. His name is pronounced (ah-vee) (zam-it-tease).



Avi Zamites, NIKSP
Photo by Avi Zamites

Avi was born in Chicago and grew up there and Tennessee. He comes to us by way of Illinois, Tennessee, Georgia, Texas, California, Oregon, Washington, Massachusetts, Mississippi, and

North Carolina. He has lived in the Tampa area for 16 years.

He holds a B.S. in Education, worked in Aircraft Maintenance-Inspection, and is currently a Software Engineer. He hopes to stay alive and retire.

He met his spouse online and they have five children who have given them 3 grandchildren.

When not working he enjoys science and electronics and has been involved with some form of radio since starting with CB Radio in 1967. His stations consists of a four band inverted “V” dipole antenna and ICom Radios/Receivers: IC-7300, IC-R71a, and an IC-R9700.

He has been making good use his newly-installed inverted “V” antenna, having already talked to Barbados, Italy, Washington State, and others.

Rod Clark (KC4MMR) worked with

Avi to tune his dipole on 40 meters but realized that resonance on 15 meters was lost. If you're a multi-band expert and can lend a hand getting the antenna resonant on all 4 bands on the voice frequencies please reach out to him using the information on the roster.

Welcome to the club, Avi!



Avi's antenna Farm
Photo by Avi Zamites

Tale of Two SIMs (Continued)

The original intent in using text messages in this way was that even if a username and password were compromised, that text message would be a last line of defense to prevent hackers from gaining access. Unfortunately, it didn't take long for criminals to figure out how to steal the phone number (and phone service) from cellular phones, and intercept these text messages as well. Once they have all the pieces, they can gain access. Unless you have specifically placed safeguards on your cell phone account with additional PINs (six digits or more) and have blocked all porting requests without presence at a phone store, your account is vulnerable. Within 40 minutes of noticing "No Service," I was at my provider's retail store with my ID and cellular phone in hand,

explaining what had happened. I was fortunate to speak with an employee who realized that speed was paramount, and within 10 minutes he'd canceled the criminal's SIM, my original SIM (that no longer worked anyway), and I had a new SIM in my phone. I also had an additional multi-digit security code on my account, and a notation that no porting requests were allowed without presentation of a government-issued ID.

In the end, I was fortunate. Thankfully, I wasn't too engrossed in the weekend's activities to pay attention to my cellular phone. My online account that was targeted had additional safeguards previously set up - verification codes that were time based, not text based. The crimi-

nals were not able to gain access. The cost incurred was a few hours of my time, some peace of mind, and a heightened sense of paranoia that it might happen again. I suspect the reason that I'd been targeted in the first place is that the account provider had suffered a data breach - otherwise, how would the criminals know that I had an account id, correlated with a particular phone number and email address?

If you have online accounts "safeguarded" with text message verification, you may want to investigate making security around those accounts even stronger. And, it's best to be vigilant, even during contests.

That's all for this time. Remember to send contesting related stories, book reviews, tips, techniques, press releases, errata, schematics, club information, pictures, stories, blog links, and predictions to contest-update@arrl.org.

73, Brian N9ADG



Photo by Wikimedia.org

Hamfests & Conventions

05/09/2020
EPARS Tailgate
Dade City, FL
East Pasco Amateur Radio Society
<http://eparsonline.org>

05/23/2020
Wormfest
Pinellas Park, FL
The Glorious Society of The Wormhole
<http://w4orm.org/>

06/13/2020 - Mid-June
Pre-ARRL Field Day Tail-Gators' Gathering
Dade City, FL
Dade City Masonic Lodge
<http://dadecitymasoniclodge.com>

08/22/2020
TARCFest
Tampa, FL
Tampa Amateur Radio Club
<http://www.hamclub.org>

11/14/2020
SPARC Fest
Pinellaas Park, FL
St. Petersburg Amateur Radio Club
Website: <http://www.sparc-club.org>

12/11/2020 - 12/12/2020
Tampa Bay Hamfest
Plant City, FL
Florida Gulf Coast Amateur Radio Council
<http://www.tampabayhamfest.com>

More at <http://www.arrl.org/hamfests/>

Note: Due to the COVID-19 outbreak some hamfests and conventions may be cancelled. Please check with the sponsoring organization for status as it may have changed after this newsletter was published

Upcoming Club Events

- > April 16, 2020
BARS Club Meeting
7:30 PM Online.
Register [here](#).
- > April 22, 2020
Virtual Coffee Hour
7:30 PM Online.
Register [here](#) (one registration works for all instances).
- > April 29, 2020
Virtual Coffee Hour
7:30 PM Online
Register [here](#) if you haven't already (one registration works for all instances).
- > May 6, 2020
Virtual Coffee Hour
7:30 PM Online
Register [here](#) if you haven't already (one registration works for all instances).
- > May 13, 2020
Virtual Coffee Hour
7:30 PM Online
Register [here](#) if you haven't already (one registration works for all instances).
- > Mondays, 8 PM ET
VHF Net (147.165 MHz)
- > Tuesdays, 7 PM ET
6 Meter Roundtable (50.200 MHz USB)
- > Tuesdays, 8 PM ET
10 Meter Roundtable (28.365 MHz USB)
- > Fridays, 7 PM ET
80 Meter Roundtable (3.830 MHz LSB)

The Brandon Amateur Radio Society (BARS) has been serving Brandon, Valrico, Mango, Seffner, Palm River, Gibsonton, Riverview, and the East Tampa area for over 43 years providing public service and emergency preparedness communications as well as license classes and radio operator training programs.



Thank you to the members and staff of Arise for their kindness

In allowing BARS the use of their facility!

Our Repeaters

147.165 MHz (+ offset, 136.5 Hz PL Tone, Analog FM) - N4DLW-R Echolink Node
443.500 MHz (+ Offset, 127.3 Hz PL Tone, Analog FM, C4FM) - N4DLW/R Wires X



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<http://www.brandonhamradio.org/>



<http://awww.fb.me/brandonhamradio>



<http://www.twitter.com/brandonhamradio>

Florida QSO Party

Scott Irwin (W8UFO)

COVID-19 has NOT cancelled the Florida QSO Party, which will be held on April 25 and 26, 2020. The object of the event is "Everyone Works Florida, Florida Works Everyone." Organizers hope that hams will join them by activating club, home, and school stations to activate and work all 67 Florida counties.

This year marks the 23rd anniversary of the event, and organizers have a 2020 FQP Spelling Bee special event award. Work 8 1x1 special event stations (whose suffixes spell "LOVEBUGS" to get this award. The [FQP website](#) states that the stations will be on both modes full-time are expected to be very accessible. See their website for QSL details.

While COVID-19 has not cancelled

the event, it has brought about some rule changes:

- Mobile and Expedition Categories have been suspended due to the Florida stay-at-home mandate.
- The Club Competition has been revised. Participants can indicate "CLUB: Brandon Amateur Radio Society" (or their home club) in the Cabrillo header.
- Multi-operator entries may be distributed within a QTH (for FL hams, your County) due to stay-at-home mandates worldwide.

There are many awards for this contest which include Top Florida Low Power (WD4AHZ Memorial), Top Florida SSB, Top Florida QRP, Top Florida YL, Top Florida Club Station, and many more!

The exchange for the contest signal report (RS or RST) and Location. Locations are defined as:

- Florida: County
- US (including KH6/KL7): State
- Canada: Province
- DX (including KP4, etc.): DXCC prefix
- Maritime Mobile operators: ITU Region (1, 2 or 3)

For full details visit <https://floridaqsoparty.org/>.



Photo by Florida Contest Group



Submit your articles & photos for the next edition of *The Antenna* by May 11, 2020!

Send electronic submissions to w8ufo (at) arrl (dot) net