

News from



THE GLORIOUS SOCIETY OF THE WORMHOLE

July 2017

Hello Worms

I hope all of you participated in Field Day in some way. I helped set up TARC and then came back to help tear down. I did operate some at the Hillsborough County EOC. Lots of work and lots of fun ... not sure why it is fun, maybe satisfying is a closer emotion.

Fifty percent chance of rain, the forecast sounds like a great day for the meeting. Bring your folding chair if you have one. For those interested the Minnreg website is <http://www.minnreg.com/>.

* GROWING THE RANKS*

By Dan Romanchik, KB6NU

Because I teach amateur radio classes and publish a series of popular amateur radio license study guides (www.kb6nu.com/study-guides/), I often get kudos for "growing the ranks." In fact, Gordon West, WB6NOA, told me this just last week, when he stopped by the booth I was in at the Dayton Hamvention. I'm paraphrasing a little, but after telling me that he's heard good things about my study guides, he said something like, "You're doing good work in helping get more people into ham radio."

People say that as if this is—or should be—the ultimate goal of teaching a license class. While this may be one of the goals, if that's your primary goal, I think that you're barking up the wrong tree.

In a way, creating more hams is selfish. If there are more licensed amateur radio operators, they say, then amateur radio will have more political clout with the FCC and with Congress, making it easier to pass legislation like the Amateur Radio Parity Act. While this may certainly help the new ham down the line, its main thrust is to reduce restrictions on those who are currently hams.

My goal in teaching amateur radio classes isn't to create more hams. Instead, my goal is to help more people have fun with ham radio. The first step in helping people have fun with ham radio is, of course, helping them get their license. I do that by publishing my study guides and teaching ham classes.

The next step, and I'm only really getting started on this right now, is to help people learn what they need to know to become better ham radio operators. That's why I got a little excited when I saw the article, "Making a Good hobby Better Through Post-Licensing Enrichment" by Tim Busch, N0CKR in the latest issue of Radio Waves, the ARRL's email newsletter for amateur radio instructors.

In the article, Tim describes several activities that his club encourages, including a "new ham net" and the Field Day GOTA station, but he also details a program of "mini classes" that will teach specific skills related to ham radio. These include:

- * Programming Radios and Getting on the Air
- * Soldering 101
- * Multimeter 101
- * Build and Use a Roll-Up J-Pole Antenna
- * Build and Use a Satellite Antenna
- * Foxhunts
- * Operating Digital Modes: IRLP, AllStar, D-Star, EchoLink, etc.
- * Remote Operation
- * Software-Defined Radios
- * Transitioning from VHF/UHF to HF Operating
- * Chasing Awards
- * Learn CW
- * Contesting

Tim writes, "Each class is intended to be no more than two hours at a sitting, so they can be held before a monthly club meeting. The variety of subject matter allows many club members to get involved in leading a topic. Materials kits are prepared in advance, so students walk away with practical items they can use at home."

I think this is a great set of classes, and I plan to try some of these in the fall. A couple of other topics that occur to me are:

- * Power Supplies 101
- * Mobile Operation 101
- * ARRL 101
- * RFI/TVI 101

Helping new hams—and old hams—have more fun with amateur radio is a lot more satisfying to me than just “growing the ranks.” It would be nice to say that we have a million licensed radio amateurs in the U.S., but I think it would be a lot more valuable to the hobby to say that a larger percentage of licensed hams were active and enjoying ham radio. I know that, for me, increasing the number of active, engaged hams would be more personally satisfying than simply creating a lot of new licensees.

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When he's not working on helping new hams, Dan operates CW on the HF bands and blogs about amateur radio at KB6NU.Com. If you have a good idea for a new ham “mini class,” e-mail him at cwgeek@kb6nu.com.

***2017 CITRUS TOUR SUCCESS ***

From; ISSUE #26 - THE WCF PRESSER - ARRL West Central Florida Section News

The 30th Annual MS Citrus Bile Tour was once again a success. Thirty Five volunteers were successful in providing communications for this event once again and the event had almost 800 riders. This year's communications were the smoothest and best flowing in recent years and it is thanks to all of you who participated and made this event a success. The MS Society is very depend upon us for the services that we provide and grateful to all of you who make this event a success. Mark the date of May 5-6, 2018 in your calendar as that is the date for the 2018 MS Citrus Bike Tour. We reached the absolute minimum level of volunteers needed to provide communications for this event. We will be in need of about 10-15 more volunteers next year to properly provide adequate levels of volunteer staff to do

this event justice. Be thinking about this in the months to come and how you may be able to help out next year. Also we look forward to the return of our communicators from this year as well.

*** APPLE TO DISABLE DRIVER'S PHONES ***

INFOPACKETS by John Lister on June, 7 2017

Apple is to introduce a safe driving mode to stop drivers being distracted by their phone. The mode aims to maximize safety without taking all usability away.

The changes follow a [lawsuit against Apple by the parents of a child killed in a car crash](#). The driver responsible for the crash had been using FaceTime video calling while driving at 65 miles per hour. The parents said Apple shared some responsibility, as it had developed technology to prevent FaceTime from working in a moving car, but chose not to use it.

The new mode will debut with iOS 11, an update that will be distributed to the iPhone 5 and later. The mode is named "Do Not Disturb While Driving" and is effectively a souped-up version of the "Do Not Disturb" mode that users can enable on many phones.

Users can choose to have the feature permanently disabled. If they don't, it will automatically switch on when the phone connects to Bluetooth in the car, or if the phone detects that it is in a moving car. If the mode switches on, users will be able to turn it off with a single tap - for example, if they are a passenger rather than the driver. (Source: [cnet.com](#))

There will be two main effects of the mode being turned on. The first is that notifications and alerts will be switched off. Users can opt to have the phone automatically respond to any incoming text messages or phone calls with a pre-written message. It's also possible to set exceptions - for example, by allowing calls from a specific number to come through.

The second effect is that most touch screen input will be blocked. Navigation tools such as Apple Maps will still work, but it won't be possible to type in a destination while the mode is on. (Source: [inc.com](#))

"Do Not Disturb While Driving" can work alongside an existing feature named Apple CarPlay, which allows voice controls, can read messages out loud, and displays information on a large screen on the car dashboard so that users can see it more easily and not spend time squinting at a phone screen. The difference is that the new feature simply needs the phone, whereas Apple CarPlay only works on specific compatible cars.

* HACKERS SHUT DOWN POWERPLANT *

The Washington Post By [Ellen Nakashima](#) June 12 at 4:20 PM

Hackers allied with the Russian government have devised a cyberweapon that has the potential to be the most disruptive yet against electric systems that Americans depend on for daily life, according to U.S. researchers.

The malware, which researchers have dubbed CrashOverride, is known to have disrupted only one energy system — in Ukraine in December. In that incident, the hackers briefly shut down one-fifth of the electric power generated in Kiev.

But with modifications, it could be deployed against U.S. electric transmission and distribution systems to devastating effect, said Sergio Caltagirone, director of threat intelligence for Dragos, a cybersecurity firm that studied the malware and issued a [report Monday](#).

And Russian government hackers have shown their interest in targeting U.S. energy and other utility systems, researchers said.

“It’s the culmination of over a decade of theory and attack scenarios,” Caltagirone warned. “It’s a game changer.”

The revelation comes as the U.S. government is investigating a wide-ranging, ambitious effort by the Russian government last year to disrupt the U.S. presidential election and influence its outcome. That campaign employed a variety of methods, including hacking hundreds of political and other organizations, and leveraging social media, U.S. officials said.

Dragos has named the group that created the new malware Electrum, and it has determined with high confidence that Electrum used the same computer systems as the hackers who attacked the Ukraine electric grid in 2015. That attack, which left 225,000 customers without power, was carried out by Russian government hackers, other U.S. researchers concluded. U.S. government officials have not officially attributed that attack to the Russian government, but some privately say they concur with the private-sector analysis.

“The same Russian group that targeted U.S. [industrial control] systems in 2014 turned out the lights in Ukraine in 2015,” said John Hultquist, who analyzed both incidents while at iSight Partners, a cyber-intelligence firm now owned by FireEye, where he is director of intelligence analysis. Hultquist’s team had dubbed the group Sandworm.

“We believe that Sandworm is tied in some way to the Russian government — whether they’re contractors or actual government officials, we’re not sure,” he said. “We believe they are linked to the security services.”

Sandworm and Electrum may be the same group or two separate groups working within the same organization, but the forensic evidence shows they are related, said Robert M. Lee, chief executive of Dragos.

The Department of Homeland Security, which works with the owners of the nation’s critical infrastructure systems, did not respond to a request for comment Sunday.

Energy-sector experts said that the new malware is cause for concern, but that the industry is seeking to develop ways to disrupt attackers who breach their systems.

“U.S. utilities have been enhancing their cybersecurity, but attacker tools like this one pose a very real risk to reliable operation of power systems,” said Michael J. Assante, who

worked at Idaho National Labs and is a former chief security officer of the North American Electric Reliability Corporation, where he oversaw the rollout of industry cybersecurity standards.

CrashOverride is only the second instance of malware specifically tailored to disrupt or destroy industrial control systems. Stuxnet, the worm created by the United States and Israel to disrupt Iran's nuclear capability, was an advanced military-grade weapon designed to affect centrifuges that enrich uranium.

In 2015, the Russians used malware to gain access to the power supply network in western Ukraine, but it was hackers at the keyboards who remotely manipulated the control systems to cause the blackout — not the malware itself, Hultquist said.

With CrashOverride, “what is particularly alarming . . . is that it is all part of a larger framework,” said Dan Gunter, a senior threat hunter for Dragos.

The malware is like a Swiss Army knife, where you flip open the tool you need and where different tools can be added to achieve different effects, Gunter said.

Theoretically, the malware can be modified to attack different types of industrial control systems, such as water and gas. However, the adversary has not demonstrated that level of sophistication, Lee said.

Still, the attackers probably had experts and resources available not only to develop the framework but also to test it, Gunter said. “This speaks to a larger effort often associated with nation-state or highly funded team operations.”

One of the most insidious tools in CrashOverride manipulates the settings on electric power control systems. It scans for critical components that operate circuit breakers and opens the circuit breakers, which stops the flow of electricity. It continues to keep them open even if a grid operator tries to close them, creating a sustained power outage.

The malware also has a “wiper” component that erases the software on the computer system that controls the circuit breakers, forcing the grid operator to revert to manual operations, which means driving to the substation to restore power.

With this malware, the attacker can target multiple locations with a “time bomb” functionality and set the malware to trigger simultaneously, Lee said. That could create outages in different areas at the same time.

The outages would last a few hours and probably not more than a couple of days, Lee said. That is because the U.S. electric industry has trained its operators to handle disruptions caused by large storms. “They’re used to having to restore power with manual operations,” he said.

So although the malware is “a significant leap forward in tradecraft, it’s also not a doomsday scenario,” he said.

The malware samples were first obtained by ESET, a Slovakian research firm, which shared some of them with Dragos. ESET has dubbed the malware Industroyer.

* AMATEUR RADIO RECOGNIZED BY HAM EMCOMM OPERATORS *

Police, fire and medical personnel immediately come to mind when the citizenry thinks of emergency responders, and for good reason. They are highly trained, highly skilled professionals who put their lives on the line in times of natural or human-caused disasters. For government agencies, an essential link consists of dispatch crews that garner information and quickly get the word out about trouble spots. That critical function gets a huge assist from a group of volunteers who perform a key role on the airwaves.

In Yakima County, the Amateur Radio Emergency Service consists of a team of 20 ham radio operators who are very much in the loop during times of emergencies. In mountainous areas where steep terrain renders cellphone service precarious, the ham operators are able to communicate with search and rescue crews that are scouring the area for missing hikers, skiers or snowmobilers.

Agencies at the local and state level recognize the importance of the ham operators, who

locally have been headed by Jo Whitney for the past quarter-century or so. Yakima County Sheriff Brian Winter, an amateur radio operator, coordinates with the group, and some operators are part of the sheriff's Search and Rescue Team. The team also works with the Yakima Valley Office of Emergency Management and has a radio room at the county Emergency Operations Center in Union Gap. Both Yakima hospitals have amateur radio stations.

It doesn't stop at the county level. Last year, a number of state agencies used radio teams for communications during the massive Cascadia Rising earthquake and tsunami drill. State emergency officials have recommended that local agencies establish a "habitual relationship" with the teams.

Fortunately, disasters are few and far between, but the operators still get plenty of work. Earlier this month, they were situated along the course of the Round Mountain Half-Marathon footrace, which includes a grueling four-mile uphill — and corresponding downhill — as part of the 13.1-mile course. They also help keep track of the hundreds of runners strewn along the course of the the Yakima River Canyon Marathon, in another locale where terrain makes cellphones unreliable. Next month, they will be on hand for the Grey Rock 50-kilometer trail race — again, a mountainous challenge where the operators are an essential part of safety preparations. Many other events have benefited from their presence over the decades.

The county's Amateur Radio Emergency Service is there for the public not only in times of calamity, it also to enable events that enhance the quality of life for the Yakima Valley. They may be seen — and heard — by only a few, but their presence adds a measure of safety for everybody in Yakima County.

CLUB MEETING

This meeting at 11:00 Saturday morning at the Minnreg Building located at 6340 126th Ave N, Largo. Talk-in is on the Wormhole repeater system. For those coming to the meeting who cannot hit the repeater we will be monitoring 146.520 simplex, the national calling frequency. We will keep an eye peeled for you. We will take advantage of the cooking facilities with an after-the-meeting Social and Wormdog picnic.

CLUB NETS

Check in on the club net Thursdays at 1930. 442.625 + with a 146.2 tone or the 2M side at 146.850 – also with a tone of 146.2. We are always looking for volunteers to be the net control operator. Anyone interested, talk to one your club officers.

LOCAL NETS

MONDAY

1730 147.030 + Receiver sites and tone info <http://www.qsl.net/wd4scd/>

St Pete Yacht Club ARC St Petersburg

1830 147.060+ no tone St Pete ARC daily net St Petersburg

1900 144.210 USB CARS, vertical polarization Clearwater

1900 147.135 +146.2 Zephyrhills ARC Zephyrhills

2000 147.165+ 136.5	Brandon ARS	from Brandon
2000 50.135 County	Pinellas ARK	Pinellas
2030 NI4CE system	EAGLE Net, NTS traffic net,	NI4CE system
2030 145.450 County	Pinellas ARK	Pinellas

TUESDAY

1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
1900 50.200 USB	6M net	Brandon ARS
1900 28.450	WCF section net	Clearwater
1900 NI4CE system	WCF Section VHF ARES	NI4CE system
1930 145.170 & 442.4 both pl 156.7	Pinellas ACS net	Clearwater
1930 444.900 +141.3	Sheriff's Tactical ARC	Tampa
2000 NI4CE system	WCF Skywarn net	NI4CE system
2000 147.105+ 146.2	Tampa ARC net	from Tampa
2000 28.365 USB	simplex	Brandon ARS
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
2100 28.465 USB	10/10 net	from Orlando

WEDNESDAY

1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
1930 52.020 simplex Petersburg	Suncoast 6'ers	from St

1930 NI4CE system	WCF Section Digital Info Ne	NI4CE system
2000 147.105 146.2	Greater Tampa CERT net	from Tampa
2000 146.97- 146.2 Clearwater	Clearwater ARS	from
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
2100 NI4CE system	Tampa Bay Traders Net	non-affiliated

THURSDAY

1800 146.52 simplex	Hillsborough ARES/RACES	North Tampa
1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
1900 444.750 +146.2	Fusion net	from Tampa
1930 146.850- & 442.625+ both pl 146.2	Wormhole	from St Petersburg
1930 146.6385 -127.3	Lakeland ARC	from Lakeland
1915 224.660- no tone Petersburg	St Pete ARC	from St
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system

FRIDAY

1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system

SATURDAY

0830 3.911 (7.281 Alt.)+/- QRM County	WCF Section HF Net	from Pinellas
1830 147.060 no tone Petersburg	St Pete ARC daily net	from St

2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
SUNDAY		
1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
1930 NI4CE system	WCF Section Net	NI4CE system
2000 147.550 simplex County	550 Simplex Net	Pinellas
2030 NI4CE system	EAGLE Net, NTS traffic net	NI4CE system
2100 144.210 USB orientation	Clearwater ARS	vertical

FOR SALE / WANTED

Anyone having something for sale or who might be looking for an item let me know. I will not print phone numbers or email addresses unless specifically told to since this newsletter might end up on the web. The exception is when I get the information off the web. If you are a member of the Wormhole then you have all the information you need on a club roster and if you are not a member .. why not? OK, if you are not a member you can contact me at the email address at the end of this newsletter, I will give you the information to contact the person involved.

FOR SALE, 13 element, 14.5 ft 220 beam. Wormhole property, \$20, contact Bill AG4QX or any other officer. **Free to any Wormhole member or other club.** Pickup at Bill's house.

HAMFESTS

2017

- August 19** **TARCFest**, TARC Clubhouse, 22nd St at the river, \$4 entry plus \$3 to tailgate, inside tables \$15 in advance, talkin on 147.105 +146.2, more info at <http://hamclub.org/>
- September 23** Pasco County Hamfest, Gunn Highway Flea Market, 2317 Gunn Highway, Odessa, \$3, Talk-In on 145.350- 146.2, <https://groups.yahoo.com/neo/groups/sarcmail/info?yguid=243291920>
- October 13-14** Melbourne, Florida State Convention, Melbourne Auditorium, 625 E. Hibiscus Blvd., **Talk-In:** 146.85- 107.2, <http://www.pcars.org/>, no info on website yet.
- November 11** **SPARCFest**, Pinellas Park, **SPARCFest**, **FREE**, Freedom Lake Park, 9990 46th St N, Southeast corner of US 19 and 49th Street, Talk-in on 147.060+ no tone. VE testing at 0900. For more information go to <http://www.sparc-club.org/sparcfest.html>
- December 8-9** **Plant City, the 2017 Tampa Bay Hamfest is the West Central Florida Section Convention**, Friday and Saturday, at the Expo Building in the Strawberry Festival grounds, for information contact **Bill Williams AG4QX**, chairman@fgcarc.org or go to <http://www.tampabayhamfest.org> or you can just ask me, Jim or Dee ;-)

- Mid January Frogman swim in Tampa Bay.
<http://www.tampabayfrogman.com/>
- Last full weekend January Winter Field Day, <http://www.spar-hams.org/index.php>
- Late January Gasparilla celebration
- March/April MS Walks
- March/April Mass Casualty Exercises
- Late April Southeastern VHF Society Conference,
<http://www.svhfs.org>
- Late April Walk For Babies (was March of Dimes)

Late April	Florida QSO Party
Mid-May	Annual Armed Forces Crossband Test
Early to Mid May	MS 150 bike ride http://bikeflc.nationalmssociety.org/site/TR?fr_id=28207&pg=entry
Mid-May	Florida Hurricane Exercise
Late May	Wormfest
Early June	Museum Ships on the Air
Fourth weekend in June	Field Day http://www.arrl.org/contests/announcements/fd/
July 3/4	Midnight Run in Largo http://www.kiwanismidnightrun.com/
August	International Lighthouse/Lightship Week https://illw.net/
October, 3 rd weekend	JOTA, Scout Jamboree-on-the-AIR
Early December	ALS bike ride in Walsingham Park
December, first full weekend	Ride & Run With The Stars in Fort DeSoto Park
December, Second full weekend	Tampa Bay Hamfest http://www.fgcarc.org/

YOUR WORMHOLE OFFICERS

Bill AG4QX is President and editor of this newsletter, Vice-President is Mike K4ZPE, Treasurer is Jim KD4MZL, Paul KA4IOX is the Secretary, Dee N4GD is the Repeater Trustee and Neil W4NHL and Mike K4ZPE are our club webmasters.

YOUR WORMHOLE REPEATERS

442.625 + PL 146.2

146.850 - PL 146.2

The Wormhole repeaters are both now dual mode Yaesu DR-1X. FM analog as always and now Yaesu Fusion, a C4FM/FM digital mode. The repeater crew updated the software on May 3, 2016.

The Wormhole website is at: <http://www.TheWormholeSociety.org>.

West Central Florida Section website: <http://www.arrlwcf.org/>.

The ARRL website is at: <http://www.arrl.org/>

This newsletter is written for The Glorious Society of the Wormhole, an ARRL affiliated amateur radio club located around the Seminole section of Pinellas County Florida. Anyone wishing to be added or removed from The Glorious Society of the Wormhole mailings please write to me at the address below and thy will be done.

73,
Bill Williams
AG4QX
ag4qx AT arrl DOT net