

News from



The GLORIOUS SOCIETY OF THE WORMHOLE

December 2018

Hello Worms

Hi Worms,

I remind everyone that the Tampa Bay Hamfest and ARRL WCF Convention is next weekend, the 7th and 8th of December. There will be tickets available at the meeting.

Our congratulations go out to our local organizations for their Field Day 2018 participation. In class 2A Tampa Amateur Radio Club was 1st in section, 1st in division and 4th nationally. In 3A the combined Pinellas group was 1st in section and 5th in division, 42nd nationally. Under class 1F Hillsborough County ARES/RACES finished 1st in section, 2nd in division and 26th nationally.

Talk-in is on the Wormhole repeater system. For those coming to the meeting who cannot hit the repeater we will also monitor the Honeywell club repeater on 443.050 +141.3. Bring a folding chair for the meeting if you have one.

BIG CHANGES AHEAD FOR ARRL BOARD

By Dan Romanchik, KB6NU

The results are finally in. No, I'm not talking about the national mid-term election results. As I'm writing this, some of those votes are still being counted. I'm talking about this year's ARRL board elections. ARRL members have spoken, and they have

elected four new faces to the board in what was the most hotly-contested election in a long time.

Three of the five incumbents, plus an incumbent vice director running for the Northwest Division director position, were defeated by candidates calling for more transparency and for changes in the way that the ARRL operates.

Here are the results:

Central Division Director

- Kermit Carlson, W9XA 1,898
- Valerie Hotzfeld, NV9L 1,755

Hudson Division Director

- Ria Jairam, N2RJ 1,292
- Mike Lisenco, N2YBB 1,239

New England Division Director

- Fred Hopengarten, K1VR 1,432
- Tom Frenaye, K1KI 1,383

Northwestern Division Director

- Mike Ritz, W7VO 1,589
- Bonnie Altus, AB7ZQ 1,308
- Horace Hamby, N7DRW 495

Roanoke Division Director

- George Hippisley, W2RU 1,891
- Dr. James Boehner, N2ZZ 1,365

In the only two contested vice director elections, Mark Tharp, KB7HDX defeated Daniel Stevens, KL7WM and Delvin Bunton, NS7U in the Northwest Division and in the Roanoke Division, William Morine, N2COP defeated John Humphry, W4IM. All newly elected officials will take office at noon on January 1, 2019.

I was kind of surprised here that Valerie Hotzfeld, NV9L, failed to win in the Central Division. She has certainly made many contributions to amateur radio, both in the

DX/contest community and on *Ham Nation*. Apparently, though, she made some statements that she was forced to retract, and that probably hurt her campaign, and as some pointed out to me, Kermit Carlson, W9XA, was well thought of in the Central Division and in the VHF/UHF community.

Overall, though, I'm very pleased with the results. Although some of the margins of victory were small—K1VR won by only 49 votes and N2RJ won by 53 votes—I think it's pretty clear that the members want change. Now, it's up to the board, including its newest members to effect that change. As always, I'm ready to help in any way that I can.

When he's not keeping up with ARRL politics, Dan blogs about amateur radio, writes exam study guides (www.kb6nu.com/study-guides), and operates CW on the HF bands, and lately some digital modes as well. Look for him on 30m, 40m, and 80m. Please email him your thoughts about the ARRL at cwgeek@kb6nu.com.

*** FACEBOOK MESSENGER HIT BY LEAKS, DATA FOR SALE ***

BBC NEWS By Andrei Zakharov, BBC Russian Service

The perpetrators told the BBC Russian Service that they had details from a total of 120 million accounts, which they were attempting to sell, although there are reasons to be sceptical about that figure.

Facebook said its security had not been compromised and the data had probably been obtained through malicious browser extensions. Facebook added it had taken steps to prevent further accounts being affected.

The BBC understands many of the users whose details have been compromised are based in Ukraine and Russia. However, some are from the UK, US, Brazil and elsewhere. The hackers offered to sell access for 10 cents (8p) per account. However, their advert has since been taken offline.

"We have contacted browser-makers to ensure that known malicious extensions are no longer available to download in their stores," said Facebook executive Guy Rosen.

"We have also contacted law enforcement and have worked with local authorities to remove the website that displayed information from Facebook accounts." The breach first came to light in September, when a post from a user nicknamed FBSaler appeared on an English-language internet forum. "We sell personal information of Facebook users. Our database includes 120 million accounts," the user wrote. The cyber-security company Digital Shadows examined the claim on behalf of the BBC and confirmed that more than 81,000 of the profiles posted online as a sample contained private messages. Data from a further 176,000 accounts was also made available, although some of the information - including email addresses and phone numbers - could have been scraped from members who had not hidden it.

The BBC Russian Service contacted five Russian Facebook users whose private messages had been uploaded and confirmed the posts were theirs. One example included photographs of a recent holiday, another was a chat about a recent Depeche Mode concert, and a third included complaints about a son-in-law. There was also an intimate correspondence between two lovers. One of the websites where the data had been published appeared to have been set up in St Petersburg. Its IP address has also been flagged by the Cybercrime Tracker service. It says the address had been used to spread the LokiBot Trojan, which allows attackers to gain access to user passwords.

Personal shopping assistants, bookmarking applications and even mini-puzzle games are all on offer from various browsers such as Chrome, Opera and Firefox as third-party extensions. The little icons sit alongside your URL address bar patiently waiting for you to click on them. According to Facebook, it was one such extension that quietly monitored victims' activity on the platform and sent personal details and private conversations back to the hackers. Facebook has not named the extensions it believes were involved but says the leak was not its fault. Independent cyber-experts have told the BBC that if rogue extensions were indeed the cause, the browsers' developers might share some responsibility for failing to vet the programs, assuming they were distributed via their marketplaces.

But the hack is still bad news for Facebook. The embattled network has had a terrible year for data security and questions will be asked about whether it is proactive enough in responding to situations like this that affect large numbers of people.

The BBC Russian Service emailed the address listed alongside the hacked details, posing as a buyer interested in buying two million accounts' details.

The advertiser was asked whether the breached accounts were the same as those involved in either the Cambridge Analytica scandal or the subsequent security breach revealed in September. A reply in English came from someone calling themselves John Smith. He said that the information had nothing to do with either data leak. He claimed that his hacking group could offer data from 120 million users, of whom 2.7 million were Russians. But Digital Shadows told the BBC that this claim was doubtful because it was unlikely Facebook would have missed such a large breach. John Smith did not explain why he had not advertised his services more widely. And when asked whether the leaks were linked to the Russian state or to the Internet Research Agency - a group of hackers linked to the Kremlin - he replied: "No."

* THE HELICAL ANTENNA*

by Ralph WD0EJA

I had the opportunity to build a couple of these for a screen set. The actors wore a hidden cordless microphone transmitting between 400 and 700 Mhz. The Helical antenna was connected to a receiver where the voices could be heard while the actors moved around.

The helical is a uni-directional antenna. In other words it favors one direction.

It is very broad banded. It can cover a large spectrum of a band maintaining a good match.



It has circular polarization. This allows it to communicate equally well regardless of the polarization from the other station. This makes it work well for satellite communication where polarization is constantly changing.

The construction is very forgiving. Sizing of the parts of the antenna are not critical.

There is much information on building a helical. Here are some basic dimensions.

1. The reflective disc is a circular sheet of aluminum. A diameter of .8 to 1.1 wavelength. On 2 meters this is less than 40".

2. The coil is perpendicular to the disc. It has a circumference of .75 to 1.33 wavelength. Or .23 to .42 wavelength diameter. The

spacing of the windings is between .21 and .29 wavelength. At least three turns of coil should be used. The coil material of this unit (PICTURE), is 1/4" aluminum rod.

3. One end of the coil is connected to the center of a connector. In the one built below it was a BNC. The other end of the coil is in free space.

4. The disc is the shield side of the feed line. The connector is mounted in the center of the disc.

5. The input impedance measures a bit high. It calculates to 140 X the diameter of the coil. This gives a range of 110 to 180 ohms.

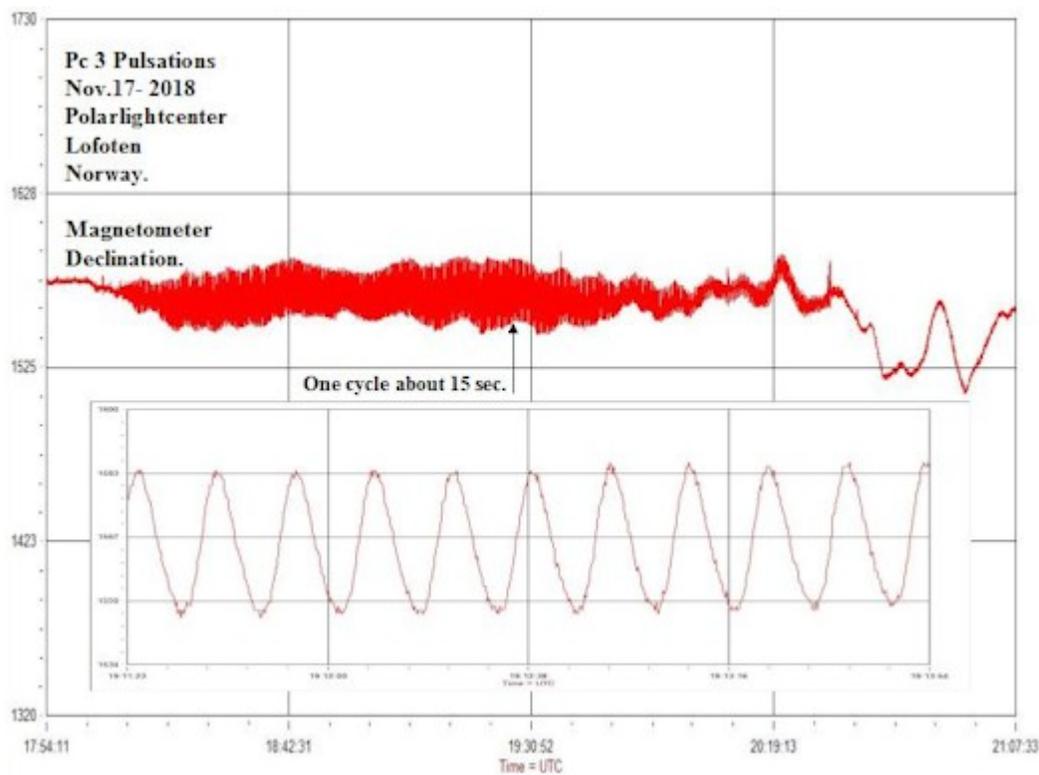
Therefore, a simple matching device is needed at the input of the antenna. The antenna below was for reception only, therefore no matching device was used.

This is one of the few antennas where the appearance looks like what it actually does. It is not hard to build and the dimensions are quite forgiving.

* A RARE WAVE IN EARTH'S MAGNETIC FIELD*

spaceweather.com 11-22/2018

When a stream of solar wind hits Earth, magnetometers around the Arctic Circle normally [go haywire](#), their needles swinging chaotically as local magnetic fields react to the buffeting of the solar wind. On Nov. 18th, however, something quite different happened. Solar wind hit Earth and produced ... a pure, almost-musical sine wave:



Rob Stammes recorded the event from the Polarlightcenter, a magnetic observatory in the Lofoten Islands of Norway. "A very stable ~15 second magnetic oscillation commenced and persisted for several hours," he says. "The magnetic field was swinging back and forth by 0.06 degrees, peak to peak, with the regularity of a metronome."

Imagine blowing across a piece of paper, making it flutter with your breath. The solar wind can have a similar effect on magnetic fields. The waves Stammes recorded are

essentially flutters propagating down the flanks of Earth's magnetosphere excited by the breath of the sun. Researchers call them "pulsations continuous" -- or "Pc" for short.

"A very sensitive magnetometer is required to record these delicate waves," says Stammes. "I use a mechanical magnetometer with bar magnets suspended from a special wire. LEDs and light detectors in an isolated dark box record the motion of the magnets, while vanes in oil damp out non-magnetic interference."

Pc waves are classified into [5 types](#) depending on their period. The waves Stammes recorded fall into the range 15 to 45 seconds--that is, Pc3. Researchers have found that Pc3 waves sometimes flow around Earth's magnetic field and cause a "[tearing instability](#)" in our planet's magnetic tail. This, in turn, can set the stage for an explosion as magnetic fields in the tail reconnect.

A quartet of NASA spacecraft recently flew through just such an explosion. Last week, researchers from the University of New Hampshire [reported](#) that four Magnetospheric Multiscale (MMS) spacecraft spent several seconds inside a magnetic reconnection event as they were orbiting through Earth's magnetic tail. Sensors on the spacecraft recorded [jets of high energy particles](#) emerging from the blast site. One jet was aimed squarely at Earth and probably sparked auroras when it hit the upper atmosphere.

Stammes has recorded many [Pc waves in the past](#), "but this is the first time I have detected category Pc3," he says. "This was a very rare episode indeed."



CLUB MEETING

The next club meeting is December 1st. We meet on the first Saturday every month at 11:00 Saturday morning at the Minnreg Building located at 6340 126th Ave N, Largo.

Members are welcome to come in the rear area through the fence gate on the southeast corner of the property. Talk-in is on the Wormhole repeater system. For those coming to the meeting who cannot hit the repeater we will be monitoring the Honeywell club repeater on 443.050 +141.3. 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 and 2000. 2M at 146.850 – with a tone of 146.2. At 2000 53.150 – 1MHz offset 146.2 tone. 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

1830 147.060+ no tone Petersburg	St Pete ARC daily net	St
1900 144.210 USB Clearwater	CARS, vertical polarization	
1900 147.135 +146.2 Zephyrhills	Zephyrhills ARC	
2000 147.165+ 136.5 Brandon	Brandon ARS	from
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 ARS	6M net	Brandon
1900 28.450 Clearwater	WCF section net	
1900 NI4CE system system	WCF Section VHF ARES	NI4CE
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	Tampa ARC net	from

2000 28.365 USB	simplex	Brandon ARS
2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE
2100 28.465 USB	10/10 net	from Orlando
1900 146.490 simplex simplex Net	3 RD Tuesday monthly, Hillsborough Co	ARES

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

THURSDAY

1800 146.52 simplex Tampa	Hillsborough ARES/RACES	North
1830 147.060 no tone Petersburg	St Pete ARC daily net	from St

1900 444.750 +146.2 Tampa	Fusion net	from
1915 224.660- no tone Petersburg	St Pete ARC	from St
1930 146.6385 -127.3 Lakeland	Lakeland ARC	from
1930 444.225 + 146.2 Tampa	Hillsborough ARES/RACES	from
1930 146.850- & 442.625+ both pl 146.2 Petersburg	Wormhole	from St
1945 53.150 -1MHz 146.2 Petersburg	Wormhole	from St
2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE

FRIDAY

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

SATURDAY

0730 3.940 (7.281 Alt.)+/- QRM WCF	WCF Section HF Net	from
1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE

SUNDAY

0800 3.933	Florida Traders Net	non-affiliated
1830 147.060 no tone Petersburg	St Pete ARC daily net	from St
1930 NI4CE system system	WCF Section Net	NI4CE
2000 147.550 simplex County	550 Simplex Net	Pinellas
2030 NI4CE system system	EAGLE Net, NTS traffic net	NI4CE
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, all the following from Ray KD4HUW

- +Yaesu FT-857 with separation kit, MH-59 remote microphone, LDG FT_Meter and LDG-YT tuner all for \$725.00
- +Icom AH-4 antenna tuner for \$175.00
- +Yaesu dual band Mobile Radio (ft-7900R) New-in-the-box (never opened) for \$265.00
- +Hustler antenna parts: Bumper mounting kit; 54" foldable mast with quick disconnect; Resonators RM-75, RM-40 and RM-15. All for \$75.00

FOR SALE, New MFJ TNC 1270X, never used in original box with manual and cables. \$30. Dean Sever W8IM

FOR SALE, Mosley TA-33M 10-15-20M beam with the 40M add on kit. Antenna is on the ground and in good shape. There are several parts that need replacement. The 40M kit is new in box. Antenna is broken down into six or seven feet sections so easy to handle. Asking \$300, talk to me, Bill AG4QX at arrl dot net or see me at the meeting.

FOR SALE, Cushcraft A4S 10-15-20M beam, on the ground. There are several parts that need replacement. Asking \$250, talk to me, Bill AG4QX at arrl dot net or see me at the meeting.

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

December 7 & 8 **Plant City, the 2018 Tampa Bay Hamfest is the West Central Florida Section Convention, Friday and Saturday, at the Expo Building in the Strawberry Festival grounds, advanced admission \$9, at the door \$10, 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 at a meeting ;-)**

2019

January 13 **TARCFest**, TARC Clubhouse, 22nd St at the river, \$ entry plus \$ to tailgate, inside tables \$ in advance, talkin on 147.105 +146.2, more info at <http://hamclub.org/>

February 8-10 **Orlando Hamcation and State Convention**, Central Florida Fairgrounds, 4603 West Colonial Drive, Tickets \$15 in advance, \$17 at door. Talkin 146.4760 - no PL or D-Star 146.850 -, all the information at www.hamcation.com or call 407-841-0874

- February 22 & 23** Tampa, **5th Annual TECHCON Convention**, Hillsborough County Emergency Operations Center, 9450 East Columbus Drive, talk-in on 147.105 + 146.2, for more info goto <http://arllwcf.org/> or contact Darrell Davis at kt4wx@arll.net.
- March 3** Punta Gorda, Charlotte County Hamfest, Punta Gorda Boat Club, 802 West Retta Esplanade, talk-in on 147.255 + 136.5, <https://www.prra.club/hamfest.html>
- April 13** **TARCFest**, TARC Clubhouse, 22nd St at the river, \$ entry plus \$ to tailgate, inside tables \$ in advance, talkin on 147.105 +146.2, more info at <http://hamclub.org/>
- May 25** **WormFest 2019**, Pinellas Park, **FREE**, Freedom Lake Park, 9990 46th St N, southeast corner of US 19 and 49th Street, Park opens at sunrise for vendor setup, hamfest starts at 0800. Talk-in on 146.850 - 146.2. For a map and directions see <http://www.TheWormholeSociety.org> .
- August 17** **TARCFest**, TARC Clubhouse, 22nd St at the river, \$ entry plus \$ to tailgate, inside tables \$ in advance, talkin on 147.105 +146.2, more info at <http://hamclub.org/>



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| Mid January | Frogman swim in Tampa Bay.
http://www.tampabayfrogman.com/ |
| Last full weekend January | Winter Field Day,
https://www.winterfieldday.com/ |
| Late January | Gasparilla celebration |
| Late February | West Central Florida Tech Conference
http://arllwcf.org/wcf-special-events/wcftechconference/ |
| March/April | MS Walks |
| March/April | Mass Casualty Exercises |
| Late April | Southeastern VHF Society Conference,
http://www.svhfs.org |
| Late April | Florida QSO Party |

Mid May	March For Babies (was March of Dimes) https://www.marchforbabies.org/Registration/Events
Early to Mid May	MS 150 Citrus Tour bike ride http://www.citrustour.org/register.php
Mid-May	Annual Armed Forces Crossband Test
Mid-May	Florida Hurricane Exercise
May, Memorial Day Weekend	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 (around 14.280MHz)
Early December	ALS bike ride in Walsingham Park
December, Second weekend	Tampa Bay Hamfest http://www.fgcarc.org/

YOUR WORMHOLE OFFICERS

Bill AG4QX is President and editor of this newsletter, Treasurer is Jim KD4MZL, Paul KA4IOX is the Secretary, Dee N4GD is the Repeater Trustee and Mike K4ZPE is both our club Vice President and webmaster.

YOUR WORMHOLE REPEATERS

53.150 -1Mz PL 146.2

442.625 +5Mz PL 146.2

146.850 - 600Kz 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 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