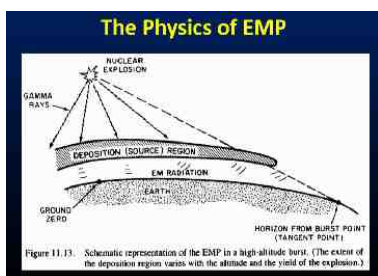


October 2018 Newsletter



The Big Island Amateur Radio Club



Club gets tips on EMP and lightning safety

At the September meeting, Hank Kaul, KH6HAK, longtime ham and retired broadcast engineer, focused on the subject of lightning awareness and station hardening.

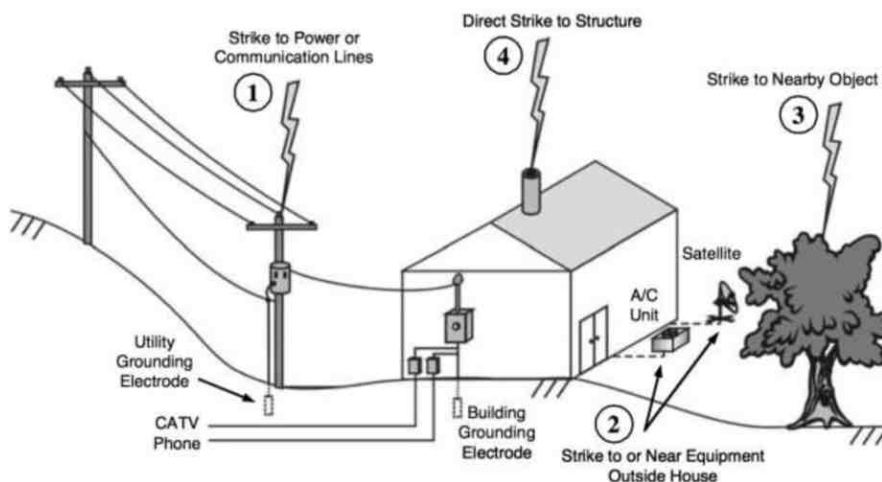
Drawing from his own well-grounded knowledge bank, as well, Hank treated the group to a slide show, "EMP and Precedents: Got a Pulse," by George Ure, AC7X, of www.urbansurvival.com.

"Lightning is very similar to EMP (electro-magnetic pulse) in some regards," we learned, and transient voltage suppressing equipment is vital.

Continued on next page



Lightning is not to be taken lightly, ever.

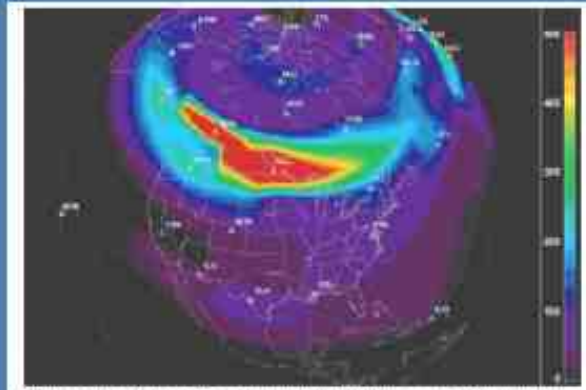


Lightning Protection

Courtesy of The DXZone: Proper setup is vital.

Not Exactly GREAT DX'ing Conditions...

Severe Earth-Directed CME 1989



Geomagnetic field disturbance conditions, dB/dt (nT/min) over North America at time 7:46 UT on March 13, 1989.

Source: Metatech Corporation, Applied Power Solutions

Figure 5. Extent of 1989 Geomagnetic Storm

The Physics of EMP

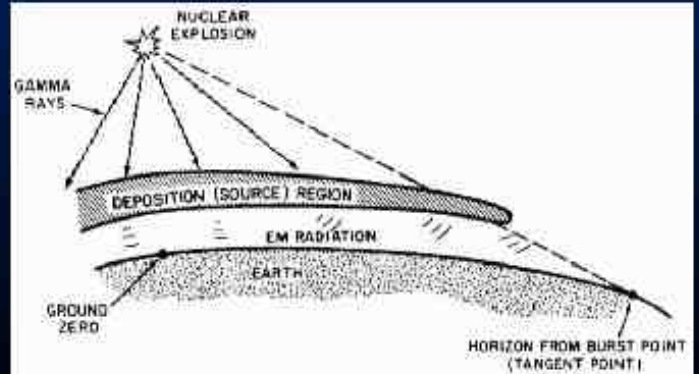


Figure 11.13. Schematic representation of the EMP in a high-altitude burst. (The extent of the deposition region varies with the altitude and the yield of the explosion.)



Excerpts from pulse protection presentation, courtesy of George Ure, AC7X, above, and presented by Hank Kaul, KH6HAK.

Pulse Threats to Ham Radio

- Body Electrostatic Discharge
- Lightning
- EMP
 - Three major sources:
 - Solar Coronal Mass Ejection driven
 - EMP Weapons
 - HEMP Attack

Continued on next page

Station Equipment Safety

EMP Basics

Stands for **E**lectro-**M**agnetic **P**ulse

Three main flavors

- HEMP (High-altitude EMP device, nuclear)
- Conventionally pumped devices
- Solar-effects driven

Planning framework:

"Lightning in the back yard"

Keep lightning out of the shack

See ARRL Handbook for all kinds of ways to do that.

Own lots of ground rods.

Two for shack and three at base of tower

Ham radio ground and the NEC are sometimes at odds

Use good lightning protectors and 'big as your thumb wiring

Have an antenna disconnect switch on your Tuner or ahead of rig.

Solar EMP Event (Carrington)

Called the "Carrington Event" Sept. 1-2, 1859
Telegraph systems all over North America and Europe failed. Some sparks started fires.

Associated with large solar flares

More recent events: 1920, 1960

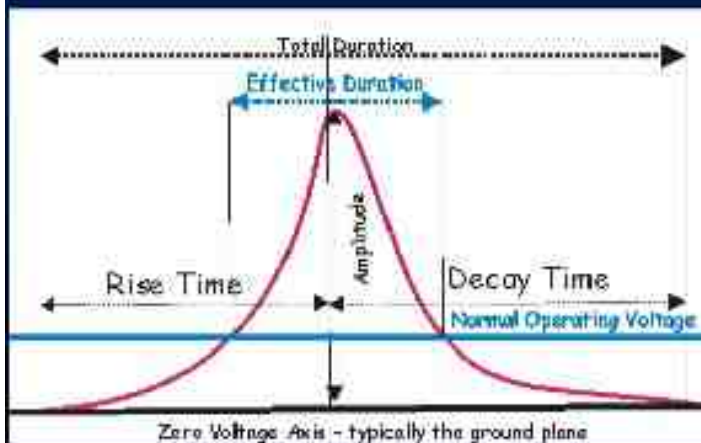
Large flares are more likely at – and just after – solar maxima

Next Technician exam prep class starts Nov. 1 in Keaau

Free classes for the Technician license will start Nov. 1, with classes to run for five sessions at 6:30 p.m. on Thursdays (skipping Thanksgiving Day) at the Keaau Community Center.

Testing will be at the same time and place on Thursday, Dec. 13. For more info, contact Doug Wilson, KH7DQ, at DOUSCELLE@aol.com or 985-9362.

Pulse 101 – the Visual



Buying Transient Protection

"When using these TVSs, the most important parameters are identified as the Rated Working Peak Voltage or Rated Standoff Voltage (VWM), the Peak Pulse Power Dissipation (PPP), Peak Impulse Current (IPP), and Clamping Voltage (VC)."

Selection and Decoding TVS

The ACFx Simplified Design Criteria:

"Buy the fastest protection you can, consistent with economic sanity"

Lot No	Supplier Number Customer Part No. Description	Quantity Ordered
1	410-2-1221000 12V 10 1000 100 10000 - Transient Vol 10 1000 100 10000 - 1000 10000 10 1000 100 10000	10
2	24V 10 1000 100 10000 - Transient Vol 10 1000 100 10000 - 1000 10000 10 1000 100 10000	10
3	40V 10 1000 100 10000 - Transient Voltage 10 1000 100 10000 - 1000 10000 10 1000 100 10000	10

- Mouser.com is 'small order & ham-friendly'
- The 5KE##AG series shows *standoff voltage*.

Continued on next page

Lightning Personal Safety



National Lightning Institute has a decision tree that answers the question "When can I play with my ham rig again?"

Sometimes it takes a while till the threat is clear of the area but it's a decision you don't want to make wrong even once...

TVS EMP Protection is a Gamble

If there ever was an EMP attack, rise time and proximity are the major concerns.

Rise times of reported 1.5 to 5 nanoseconds rise times are hard to beat with off-the-shelf (public) components; 50 nanoseconds is a piece of cake.

Best Insurance: Rig in a metal garbage can, vehicles in metal closed buildings with metal screened (grounded) windows.

Oh...and lots of beer and good walking shoes in case we all get it wrong...

The President's Paragraphs

Hello, BIARC friends:

Debbie (AH7DN) and I have been off-island since our last meeting in September, off on more adventures.

We both had dental surgery and saw whales on the Oregon coast. I've been soaring a motorglider in Arizona while Debbie visits her parents in Georgia.



Pascal AC7N

So, I haven't been quite as connected as usual. However, I did bring my DMR handheld and my digital hotspot with me on my visit to the mainland.

I have been able to make a few nice

contacts back to Hawaii on the Hawaii Statewide BM talkgroup 3115. That really is a nice way to keep in touch. I certainly don't have any HF capability on this trip.

We plan to have a good meeting on October 13 at 2:00 pm at the Kea'au Community Center. Keep your ears open for any change in case something comes up that pushes us to an alternate meeting place.

The program will be by Jim WH6FQI and Tim KH6TOB, who will show us how they set up the ARRL GoKit IC7200 to use WinLink. They hope to be able to actually demonstrate WinLink contacts and email exchanges.



The October meeting will be held at 2 p.m. on Saturday, Oct. 13, at the Keaau Community Center.



There has been a lot of interest in this, and it is great preparation for a real emergency.

We also have many other happenings and projects to talk about. So, I'm going to cut these paragraphs short, and look forward to seeing you on the 13th.

Aloha,
Pascal AC7N



*The ARRL Pacific Division and the
Mt. Diablo Amateur Radio Club Present the*

**ARRL PACIFIC DIVISION
HAM RADIO CONVENTION**

PACIFICON 2018

October 19, 20 & 21, 2018
"Sounds Like Fun"

**Takes place in
San Ramon, California**
San Ramon Marriott Hotel
2600 Bishop Drive
San Ramon, California, 94583

**Go to the Pacificon Website for
Events - Schedules - Registration**

WWW.PACIFICON.ORG

BIARC monthly meeting minutes

Saturday, September 8, 2018

The meeting was called to order by President Pascal Nelson, AC7N, at 1402.

Pascal showed the club several photos (Not yet officially released) of changes in the Kilauea Halema'uma'u Crater.

Pascal welcomed the following new members: Norma – KE7LWN; Kurt – WH6ECZ; Theresa – WH6EDA; William – NH6ET.

The address list requested by Robert Oliver, NH6AH, has been published and is available to people in a paper format who attend club meetings. The list can also be mailed but in the interests of privacy, the list will not be published on the club's website.

Other new members include: WH6FUS, WH6FTQ, AH6AE, WH6FSA, KH6LM, NH6HA, and Thomas Randal (no call).

Treasurer's Report (End of month – August 2018): Bank: \$ 1873.00 – down from \$2410.04 as reported in August. Purchases during the month included a new power supply and EPS batteries for the Kulani repeater. Paul, who is an active member of the repeater committee, "hinted" that the club needs a new treasurer for next year. The club currently has 79 paid members this year.

Announcements: Peggy Gentle, KE6TIS: Reported on Cory Allen, KN6ZU, who suffered a stroke at the end of July. Cory is at the Honoka'a Rehabilitation Center and expects to come home on Wednesday (September 12). He uses a walker and has left-side issues. Gary Schwiter, WH6EPS, visited Cory and found him with a soldering iron in-hand working on an electronics project. Since the episode, Cory has lost 30 pounds.

Mark Watanabe, WH6FSA: The Mokupāpapa Discovery Center is looking for a program on Amateur Radio to be presented on a Thursday evening and has asked the BIARC club if it could provide a speaker. Anybody who is interested should contact Pascal. Barbara Darling, NH7FY: For the foreseeable future, Friday lunches will begin at 11:30 at the New China Restaurant. The restaurant is located on Kilauea across from Long's Drug Store., Barbara also noted that K2OPT is having knee surgery.

Repeater Committee Report: Gary, WH6EPS: System dropouts prior to the arrival of Hurricane Lane were a concern. The day before Lane's onslaught, Paul and Gary went to the site. The site appeared to have been struck by lightning. The batteries were 3 fully depleted. The power supply/charger was not working. Repairs were made, but the flawed antenna installation remains – possibly causing intermittent crackling noises. The antenna work still waits for the availability of the club's climbers. Gary now has possession of the famed Repeater Key Coffee Can, which gives him access to all of the club's repeater sites. There is a possibility that the club will be able to obtain 8 Motorola MTR-200 repeaters through a donation.

There was a general discussion about the club Christmas Party. Pascal called for volunteers to work out the details. The party is normally scheduled during the December club meeting (Saturday, December 8, this year). Hopefully that party will be held at the Keau'ou Community Center. The club provides a turkey or ham main dish and the rest of the food is potluck.

Gary reiterated that access to the Kulani site requires background checks for all individuals going to the site. This poses a practical limitation to the "help" that club members can offer.

Pascal announced that he had been appointed ASCM for East Hawai'i. SCM, Joe Speroni, also appointed another ASCM for the west side of Hawai'i Island. The ARRL has shipped a Go-Kit to East Hawai'i Island and he would like 5-7 club members to take the G—Kit and to become familiar with setting up and operating the antennas and equipment in the kit. The kit must be shipped back to the ARRL on December 1. Paul, WH7BR, suggested that people living near a person that has the kit meet together and that in this way more people would become familiar with the kit. He also suggested that whoever has possession of the kit at the time of the October club meeting, bring it to the meeting and demonstrate its use.

The meeting adjourned to pupus at 1451 and resumed with the program presentation at 1508. The program on protecting against nuclear bomb initiated Electromagnetic Pulse (EMP) and weather initiated lightning was presented by Hank, KH6HAK.

Respectfully submitted,
Leslie D. Hittner, secretary



WH6FQI snapped this pic of KH6RDO and WH6FKT when the three were atop Mauna Kea. The trio amassed close to 100 contacts during their globetrotting, reports Grid Madness coordinator AH6KO.

Grid Madness 2018 a big hit!

Thanks for supporting Grid Madness, says Stan, AH6KO.

On Sunday, September 16th, Big Island hams again activated BK29gt, for the fifth annual running of Hawaiian Islands Grid Madness.

BK29gt is the legendary Maidenhead Grid Square that includes the summit of Mauna Kea (and a few telescopes). Darrell, KH6RDO, and Elisabeth, WH6FKT, drove to the summit after a spectacular outing in 2017, and they were joined by Jim, WH6FQI, for his first Grid Madness. "Together, the trio logged (unofficially, as of press time) 92 contacts," reported Stan.

From Darrell, KH6RDO:

"We need something like this for VHF/UHF since we cannot participate in the mainland contests, and it's a good test for the new guys. Bev, KH7LM, really enjoyed it. She had her license all these years but was not active till recently. She likes CW and is thinking of upgrading to general.

"I put up her tram 17ft base antenna several weeks ago for her to work this event and get her more interested in radio.

"I hope you get more participants this year so that the event grows," said Darrell. "When I was up there, my friend Bruce, the ranger there, told me that Keck & Canada France were working

that day so I couldn't park at the Canada France parking lot so I parked right next to the VOAD and state siren repeaters and ran at 20 watts instead of full power. Elisabeth was running her portable on VHF so I ran on UHF so as not to cause interference & came down to VHF when she wasn't on.

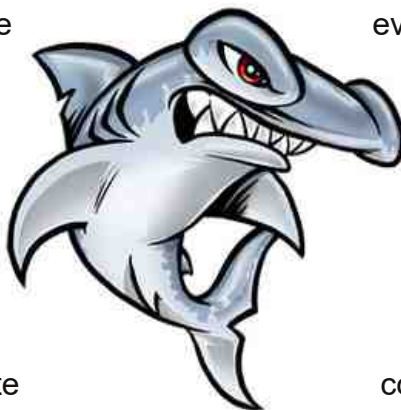
"Next time ... we should switch bands every 15 minutes or so, and then we can work each other's contacts.

"I hope the Honolulu guys had fun contacting us. I understand they were wondering if we were going up again this year. Too bad we didn't get anybody from Kauai or Molokai."

Stan noted, that for historical context, these are the Big Island hams that have gone to high places (over 10,000 feet) for Grid Madness:

- 2015 - Paul WH7BR (Mauna Loa)
- 2016 - Stan AH6KO (Mauna Loa)
- 2017 - Elisabeth WH6FKT, Darrell KH6RDO, Paul WH7BR (Mauna Kea)
- 2018 - Elisabeth WH6FKT, Darrell KH6RDO, Jim WH6FQI (Mauna Kea)

Many other radio amateurs did Grid Madness this year -- on the Big Island, Maui and Oahu.



Continued on next page

ARRL Simulated Emergency Test to be on simplex

The Oct 13th 2018 ARRL Simulated Emergency Test, following the Grid Madness VHF/UHF simplex contest, is also to be conducted this year using simplex operation (no repeaters).

Given the mountainous geography of Hawaii, this can be a challenge for some communities.

Eric Grabowski (KH6CQ) has republished an application note on Cross Band Repeaters (CBR) that he wrote many years ago in a very readable form with graphics produced by Steve Kawamura (KH6WG).

The note discusses five different configurations to improve communications in a location that loses access to repeaters.

Check it out. It is an easy read. One of these CBRs may be useful in your community.

<http://hawaiiarrl.info/stories/2018/2018-09-23CBRAApplicationNote.pdf>

ARRL Pacific Section

Section Manager Joseph Speroni,
AH0A
ah0a@arrl.org

Grid Madness wrapup:

From previous page

Thanks to all who got on the radio! As of this writing, logs are still coming in. Look for final results in late October, with all the details (e.g. what is Grid Madness???) at <http://gridmadness.blogspot.com/>.

73,

Stan AH6KO

Grid Madness event manager



Could installing an antenna be as easy as applying sunblock or bug spray?

Spray-on antennas could be the wave of the future, university researchers believe

Researchers at Drexel University's College of Engineering report a breakthrough in nanomaterials technology that promises to make installing an antenna as easy as applying sunblock or bug spray. The University reported the research in a DrexelNOW article, "Drexel's Spray-On Antennas Could Be the Tech Connector of the Future." The advance could mean wearable and invisible antennas that could find their place in the next generation of the Internet of Things (IoT), and even have Amateur Radio applications.

"The ability to spray an antenna on a flexible substrate or make it optically transparent means that we could have a lot of new places to set up networks," said Drexel Wireless Systems Laboratory Director and engineering professor Kapil Dandekar, a co-author of the research published recently in Science Advances.

"This technology could enable the truly seamless integration of antennas with everyday objects, which will be critical for the emerging Internet of things," Dandekar said.

In their paper, Dandekar and his colleagues laid out a method for spraying invisibly thin antennas made from a type of two-dimensional metallic material called MXene -- a conductive, two-dimensional titanium carbide material -- which can be dissolved in water to create an ink or paint. They said the exceptional conductivity of the material enables it to be employed as an RF radiator, even when applied in a very thin, nearly invisible coating.

Save WWV, WWVH

From Jim Kennedy

I got an email on this matter and thought I would pass it on. (See more at: w8edu.wordpress.com/save-www/)

73,
Jim
K6MIO/KH6

"As reported by the ARRL, the National Institute of Standards and Technology budget request for FY 2019 includes a request for shutting down the time standard stations, WWV and WWVH, in Colorado and Hawaii. We at W8EDU depend upon these stations for our research on ionospheric propagation, as well as for curricular exercises. Radio amateurs know WWV as the warm heartbeat of the airwaves. A radio anywhere in the world can hear the voice of WWV on ten-point-zero megahertz repeating; if that's not American exceptionalism, we don't know what is."

The message from W8EDU continues:

"We'll be leading an effort to make our voices heard in Congress, and hope to see these stations preserved for future generations." Read on to find out how you can help.

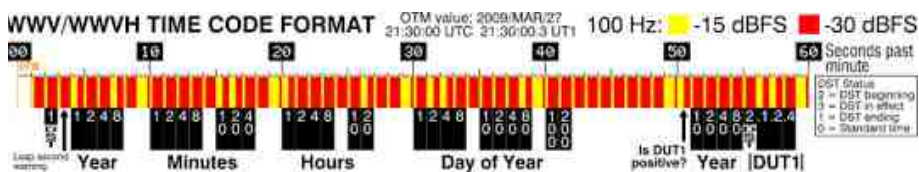
WHOM TO CALL

Letters, emails and petitions to Congress are rarely read. Calling is the best method to ensure that your input is received. Having said that, there is a petition going:

***[https://
petitions.whitehouse.gov/
petition/maintain-funding-nist-](https://petitions.whitehouse.gov/petition/maintain-funding-nist-)***



WWVH on Kauai.



stations-www-wwvh

A sample telephone script is below. Congress administrators have been surprisingly attentive listening to this and have asked a few questions.

We'll be trying to reach the members of the House Committee on Science, Space and Technology and the Senate Subcommittee on Commerce, Justice, Science and Related Agencies. We don't expect this issue to be split along partisan lines, and we'll be keeping track here of which representatives have expressed an opinion on the topic. If one of these politicians represents you, call them and let them know how you feel. If your state or district is not represented, call anyone on the committees who has not expressed a clear stance.

Remember that Congress works for you.

House Subcommittee on Research and Technology Representative/State Phone Number/Stance

Barbara Comstock, Chair, Virginia, (202) 225-5136, Unknown stance;
Frank D. Lucas, Oklahoma, (202) 225-5565, Unknown;
Randy Hultgren, Illinois, (202) 225-2976, Unknown;
Stephen Knight, California, (202) 225-1956, Unknown;
Barry Loudermilk, Georgia, (202) 225-2931, Unknown;
Daniel Webster, Florida, (202) 225-1002, Unknown;
Roger W. Marshall, Vice Chair, Kansas, (202) 225-2715, Unknown;
Debbie Lesko, Arizona, (202) 225-4576, Unknown;
Michael Cloud, Texas, (202) 225-7742, Unknown;
Daniel Lipinski, Ranking Member, Illinois (202) 225-5701, Unknown;
Elizabeth H. Esty, Connecticut, (202) 225-4476, Unknown;
Jacky Rosen,

Continued on next page

Nevada, (202) 225-3252,
Unknown; Suzanne Bonamici,
Oregon, (202) 225-0855,
Unknown; Ami Bera, California,
(202) 225-5716, Unknown;
Donald S. Beyer, Jr., Virginia,
(202) 225-4376, Unknown.

**Senate Subcommittee on
Commerce, Justice,
Science and Related
Agencies**

**Senator/State/Phone
Number/Stance**

Jerry Moran, Chair, Kansas, (202)
224-6521, Unknown; Jeanne
Shaheen, Ranking Member,
New Hampshire, (202) 224-2841,
Unknown; Lamar Alexander,
Tennessee, (202) 224-4944,
Unknown;
Lisa Murkowski, Alaska, (202)
224-6665, Unknown;
Susan Collins, Maine, (202) 224-
2523, Unknown; Lindsey
Graham, South Carolina, (202)
224-5972, Unknown; John
Boozman, Arkansas, (202) 224-
4843, Unknown; Shelley Moore
Capito, West Virginia, (202)
224-6472, Unknown; James
Lankford, Oklahoma, (202) 224-
5754, Unknown;
John Kennedy, Louisiana, (202)
224-4623, Unknown; Patrick
Leahy, Vermont, (202) 224-4242,
Unknown; Dianne Feinstein,
California, (202) 224-3841,
Unknown; Jack Reed, Rhode
Island, (202) 224-4642, Unknown;
Christopher Coons, Delaware,
(202) 224-5042, Unknown; Brian
Schatz, Hawaii, (202) 224-3934,
Unknown; Joe Manchin, West
Virginia, (202) 224-3954,
Unknown; Chris Van Hollen,
Maryland, (202) 224-4654,
Unknown.



WWVH on Kauai.

Sample Script:

Hello. My name is {NAME} and my zip code is {ZIP}.

I am calling to advocate for United States National Institute of Standards and Technology radio transmitters WWV and WWVH against proposed budget cuts.

Shortwave radio transmitters WWV and WWVH fulfill a public-good mandate of Congress under the Weights and Measures clause of the US Constitution. Their standard frequency, time of day, GPS constellation integrity, high seas weather, space weather, and other regular reports are easily and inexpensively available to all United States users throughout the world; that is the nature of shortwave radio. These functions are not duplicated by any other communications system, public or private, and I ask my elected officials, and with regulatory agency leaders, to leave them intact.

WWV and WWVH also perform outstandingly in the important roles of atmospheric sounding beacons in physics research. In that, they provide information vital to the safety of the nation's electric power networks, communications systems, and the GPS constellation. The infrastructure they represent is used in thousands of government- and industrially-funded research projects and cannot be duplicated. The maintenance of these functions represents an inexpensive addition to a well-spent, sunk cost by the US taxpayer; defunding them would be a shortsighted destruction of an established capital asset.

The monetary outlay for WWV and WWVH is approximately 0.6% of the NIST budget and approximately 0.2 cents per taxpaying family per year. Please maintain these essentially priceless public goods. The scientific community of the United States is depending on you.

Radio amateurs receive images from Chinese lunar satellite

Some earthbound radio amateurs and sky watchers have received images from a tiny Chinese satellite now orbiting the moon. In May, China launched the DSLWP-A and DSLWP-B microsattellites -- also known as Longjiang-1 and Longjiang-2 -- into a lunar transfer orbit, although Longjiang-1 was apparently lost in the process and likely remains in deep Earth orbit. They were deployed as secondary payloads with the Queqiao relay satellite as part of the Chang'e 4 mission to the far side of the moon.

DSLWP stands for "Discovering the Sky at Longest Wavelengths Pathfinder." The satellite will test low-frequency radio astronomy and space-based interferometry, and while it carries Amateur Radio and educational payloads, no transponder is aboard.

The Chang'e 4 mission will be the first-ever attempt at a soft landing on the far side of the moon. The Chang'e-4 lander and rover are scheduled to launch in December. The Harbin Institute of Technology (BY2HIT) developed and built the DSLWP spacecraft and is overseeing that mission.

The microsat also carries optical cameras from Saudi Arabia.

An open telecommand protocol allows radio amateurs to take and download images. The spacecraft transmits on 70 centimeters (435.400/436.400 MHz), with 250/500 bps GMSK using 10 kHz wide FM single-channel data, with concatenated codes or JT4G. JT4 uses four-tone FSK, with a keying rate of 4.375 baud; the JT4G sub-mode uses 315 Hz tone spacing and 1,260

Hz total bandwidth.

According to an article in GBTimes, Longjiang-2 (DSLWP-B) used its own propulsion system to slow down and enter lunar orbit, while the relay satellite

"continued past the moon to its special destination."

Longjiang-2 has used a student-developed camera to take images of the moon, Mars, the sun, and other celestial objects. Data and images have been downloaded by hams and satellite-tracking enthusiasts around the world, including the US, Brazil, China, the Netherlands, and Italy.

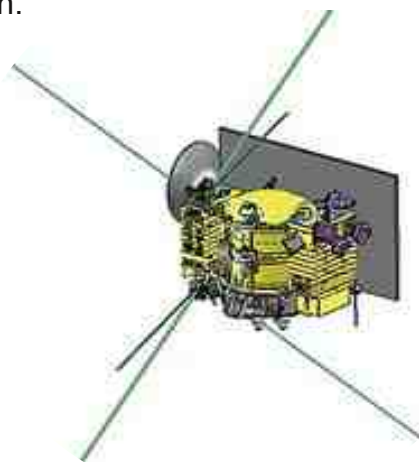
The Harbin Institute of Technology team also operates LilacSat-1, a 2U

Amateur Radio CubeSat launched as part of the European QB50 initiative, and LilacSat-2 (CAS-3H), an Amateur Radio and technology test satellite.

The Queqiao communications relay satellite is required for the lunar far-side landing to facilitate communication with a not-yet-launched lander and rover because the moon's far side never faces Earth, and some significant scientific measurements from the dark side of the moon require real-time contact with Earth.

Queqiao was developed by the China Academy of Space Technology (CAST).

The Harbin Institute of Technology Amateur Radio Club has invited more radio amateurs to get involved with the DSLWP mission, and QSL cards have been designed for different flight phases for amateurs who successfully receive telemetry or make contact.



**A DSLWP satellite.
ICAST image!**

Korean postage stamp recognizes Amateur Radio Direction Finding Championships

Korea Post issued a postage stamp in recognition of the 19th Amateur Radio Direction Finding (ARDF) World Championships, which wrapped up on September 8 in Sokcho City, Gangwon Province, Korea.

The Korean Amateur Radio League (KARL) hosted the event. Representatives of at least 30 countries, including the US, participated in formal ARDF competitions on 2 meters and 80 meters, plus sprints and foxoring. Each country may have up to three persons per age/gender category on its team, in accordance with International Amateur Radio Union (IARU) ARDF rules. Nine men and three women represented the US in Korea.

"I issued invitations to 30 persons to compete for the US, based on their finishes in the 18th USA ARDF Championships in June and in the 17th USA ARDF Championships last August," said ARRL/USA ARDF Coordinator Joe Moell, K0OV. "Because of health issues, economic considerations, and activity conflicts, only 12 were able to accept." Moell said Team USA members ranged in age from 29 to 76 and paid their own way to attend the event.

ARDF World Championships take place every 2 years, as hams from around the world compete to determine who is best at on-foot hidden transmitter hunting.



Korea Post issued a postage stamp in recognition of the 19th Amateur Radio Direction Finding (ARDF) World Championships.

The US has been represented at every ARDF World Championship since 1988.

Sokcho is located along the coast near the northeast corner in the Gangwon-do province of South Korea. This marks the second time that ARDF Team USA has competed in Korea. In 2008, Korea hosted the World Championships near Hwaseong.

The US has earned at least one medal in every World Championship since 2006.

Team USA took home 10 medals this year.

Visit Moell's "Homing In" website for more information about Amateur Radio direction finding. Follow ARDF Team USA on Facebook.

Tune in to new FCC podcast: "More than Seven Dirty Words"

The FCC has launched a new podcast series, "More Than Seven Dirty Words."

The new media outlet will feature interviews with FCC officials and staff in addition to others in the communications arena. The podcast aims "to share untold stories, explain important policy issues, and maybe even do the impossible -- make telecom interesting," the FCC said in announcing the new media outlet.

"One of the wonderful things about the digital age is the many ways to share information, so we're excited to launch this new FCC podcast," said FCC Chairman Ajit Pai, who shares some banter in an introductory segment with program

host, FCC Policy Advisor Evan Swarztrauber.

Guests will share their personal stories behind FCC news headlines and break down various telecommunications-related issues.

The podcast's title is drawn from the first episode's introductory discussion, which touches on the court fight over George Carlin's "Seven Dirty Words" and the fallout from the 2004 Super Bowl halftime show. The first podcast, "Puerto Rico se Levanta," runs 22 minutes and focuses on the FCC's response to the 2017 Puerto Rico hurricane disaster. Each episode will be available at fcc.gov, as well as on iTunes and Google Play.



**Puerto Rico Section
Manager Oscar Resto,
KP4RF.**

Puerto Rico amateurs beefing up hurricane preparedness

Sept. 20 was the first anniversary of Hurricane Maria's devastating arrival in Puerto Rico.

Today, many amateurs there are better prepared for the next storm or other disaster that could disrupt conventional telecommunications.

With this in mind, the ARRL Puerto Rico Section is hosting monthly meetings in various cities around the island commonwealth as part of an effort to establish an Amateur Radio Emergency Service (ARES) organization in Puerto Rico, to be headed by Section Manager Oscar Resto, KP4RF, and Section Emergency Coordinator Juan Sepulveda, KP3CR.

The overall initiative would involve recruiting volunteers and holding topic-specific workshops on several topics:

***Using Winlink to send emails over the air, using radiograms, introducing the National Traffic System (NTS), and explaining the new ARES online filing system.

Presenters would be Section Traffic Manager Pedro Irizarry, KP3PI, and Section Technical Coordinator Carlos Roig, WP4AOH.

***Constructing NVIS antennas for local HF communication, updating the WP4MR repeater system, where various nets take place, and assembling an Amateur Radio "go-kit" for portable emergency communication.

***Continuing to build relationships with hospitals and municipal emergency management agencies, as well as maintaining the ones established with the Red Cross and the Puerto Rico Energy Power Authority.

***Based on the new Puerto Rico Emergency Management Bureau zone divisions, a 2-meter simplex band plan has been developed, with weekly simplex drills and nets.

At a September meeting, it was decided to create a new formal net for handling formal traffic via the 145.410 MHz repeater located on the El Yunque summit.

Radio amateurs living in the US Virgin Islands were invited to participate as well.

Eventually an HF net will be available to send formal traffic to the NTS nets in the US mainland. The 2-meter net started Sept. 24.

Emergency preparedness takes center stage for 2018 Simulated Emergency Test

The 2018 ARRL Simulated Emergency Test (SET) is the primary ARRL-sponsored national emergency exercise, designed to assess the skills and preparedness of Amateur Radio Emergency Service® (ARES®) volunteers as well as those affiliated with other organizations involved with emergency and disaster response.

Although the main SET weekend this year is Oct. 6-7, (**Oct. 13, in Hawaii**) local and Section-wide exercises may take place throughout the fall. SET is an open casting call for all radio amateurs interested in expanding their emergency preparedness knowledge and skill.

The annual SET encourages maximum participation by all Amateur Radio operators, partner organizations, and national, state, and local officials who typically engage in emergency response.

In addition to ARES volunteers, radio amateurs active in the National Traffic System, Radio Amateur Civil Emergency Service (RACES), SKYWARN™, Community Emergency Response Team (CERT), Salvation Army Team Emergency Radio Network (SATERN), and a variety of other allied groups and public service-oriented radio amateurs are needed to fulfill important roles in this nationwide exercise.

SET allows volunteers to test equipment, modes, and skills under simulated emergency scenarios. To get involved, contact your local ARRL Emergency Coordinator or Net Manager.

"Get Your Park ON" operating event set for October

What is hoped will be the first annual "Get Your Park ON" operating event will take place October 14 - 20, in celebration of Earth Science Week. The event is open to Amateur Radio operators around the world and is sponsored by the national affiliates of World Wide Flora and Fauna (WWFF), which encourages radio amateurs to operate outdoors in protected nature parks.

During this on-the-air celebration, hams can participate in one of two ways. North American hams can opt to be Activators, setting up and operating in geological and nature centers, such as national and state parks and forests, national monuments, and protected nature habitats. They also may decide to be Hunters, operating from home and searching out and making contact with the Activators.

"We are trying to have parks activated in all states of the USA and Mexico and all Provinces of Canada," the sponsor's Facebook page notes. "Let's have some fun." The week-long special event is reminiscent of ARRL's popular National Parks on the Air (NPOTA) event in 2016, but extends to a larger set of national treasures beyond those managed by the National Parks Service.

In October 1998, the American Geosciences Institute organized Earth Science Week, a national and international event to help the public gain a better understanding and appreciation for the Earth sciences and to encourage stewardship of the Earth, a common goal shared by WWFF. Both programs encourage participants to get outside and enjoy nature.

"Get Your Park ON" begins at 0000 UTC on October 14 and continues through 2359 UTC on October 20. Visit the "Get Your Park ON" Facebook page for more.

Earth Science Week 2018 engages young people and others with learning resources and activities exploring the relationship between the arts and the Earth systems. This year's theme of "Earth as Inspiration" promotes public

understanding and stewardship of the planet. Of special interest to the Amateur Radio community and their families is an "Inspired by Earth" photo contest and an essay contest for students in grades 6 through 9. -- **Thanks to Norm Meyers, N9MM**

ARRL Foundation invites scholarship applications for 2019-2020 Academic Year

The ARRL Foundation will begin accepting scholarship applications on October 1 from eligible radio amateurs planning to pursue post-secondary education in the 2019-2020 academic year. Completed applications must be received by January 31, 2019. Individuals and clubs support many of the more than 80 scholarships, ranging from \$500 to \$5,000, that are awarded annually. Applicants for all scholarships must be active radio amateurs and must complete and submit the online application.

"The ARRL Foundation Board of Directors is honored to be able to continue to offer scholarships to assist Amateur Radio operators in offsetting the costs of higher education," said ARRL Foundation Secretary and ARRL Development Manager Lauren Clarke, KB1YDD. "All ARRL Foundation scholarships are made possible by individuals or clubs, and we are grateful for their support."

Students planning to apply for 2019-2020 academic year awards should first carefully review the eligibility requirements and scholarship descriptions. Although only one application per applicant is required, applicants may ask to be considered for as many of the scholarships for which they are eligible (some scholarships have geographic criteria or other requirements). Check off only the scholarships for which you would like to be considered. In addition to completing the online application, applicants must submit a PDF of their academic transcript from their most recently completed school year (emailed to foundation@arrl.org).

Applications are due on January 31, 2019, by 11:59 PM ET.



Ten Ten International

You have to make contacts to get results!



Upcoming events

in the world of 10-10



Facebook: Unofficial Ten-Ten International Net Public Group is for members of Ten-Ten International and others who are interested in 10 meter operation. This group is not an official arm of Ten-Ten International.

10-10

!!!! Flash Flash Flash Flash !!!!

Ten-Ten International Net requires that you must exchange four pieces of information “over-the-air” before you have a valid 10-10 contact that you can count toward your application for membership. The required information is Call Sign, Name, QTH location, and 10-10 number. Looking up a 10-10 member’s information after you got his or her call sign is NOT a valid contact. Getting all this information through an FT8 QSO requires a bit more interaction with the FT8 program than you might be familiar with. The How to Do it information can be found in an article which can be downloaded in PDF format.

Ten-Ten International Net, or 10-10 for short, is an organization of amateur radio operators dedicated to maintaining high levels of amateur radio communications on the 10-meter amateur band (28.0-29.7 MHz). Established in 1962, 10-10 has grown continuously since that day, with some ups and downs according to the numbers of sunspots and the openness of the band. As you read this, the number of 10-10 numbers issued to members is over 77,000. 10-10 would welcome your membership in the organization if you have an amateur radio license with 10-meter privileges.

10-10 offers the 10-meter enthusiast the opportunity to share in a wide variety of activities internationally.

Upcoming Events

Wed Oct 10, 2018 00:00
[10-10 Sprint](#)

Sat Oct 20, 2018 00:00 -
Sun Oct 21, 2018 23:59
[Fall CW QSO Party](#)

Sat Nov 10, 2018 00:00 -
Sun Nov 11, 2018 23:59
[Fall Digital QSO Party](#)

Tue Jan 01, 2019 00:00
[10-10 Anniversary](#)

Tue Jan 01, 2019 00:00
[10-10 Meet the Volunteers](#)