



# THE OHM TOWN NEWS

*Voice of the Bridgerland Amateur Radio Club*

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

## June, July August Summer 2011

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ARRL Affiliated

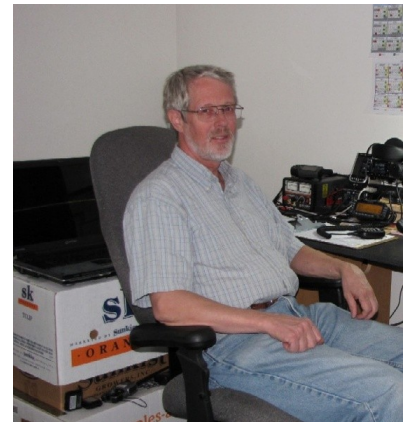


## PRESIDENT'S MESSAGE

Congratulations to Shirley Larsen AD7HL for being selected the 2011 ARRL Rocky Mountain Division Ham of the Year.

Over the past few years, we have seen the number of women who have received their Amateur Radio Licenses in our area surge. What we needed was someone to mentor these women and get them more involved in the hobby and club. We asked Shirley if she would simply find a way to get the ladies involved, mentor them and to create an atmosphere where they were comfortable in being part of Amateur Radio. Shirley has done an excellent job in many areas of involving the ladies in amateur radio. The ladies net, where she contacted the ladies and encouraged them to join in. Involving the ladies in other activities as potluck dinners to get to know one another, tours of city EOC's, technical sessions, and built it parties to show and help them in the various aspects of amateur radio. The mentoring and encouragement that she has given to the numerous ladies has inspired those to become more involved in amateur radio. For the inspiration and service she provided, we took the opportunity to nominate Shirley for the Rocky Mountain Division Ham of the Year Award. Again, congratulations for being selected and thank you Shirley for all that you do.

It is June already and Field Day on the 25<sup>th</sup> and 26<sup>th</sup> is just weeks away. If you have not noticed, there is lots of snow still on the mountains. So what are conditions like at the place we had Field Day last year in Logan Canyon near the State Road Sheds on Swan Flat road? On the Memorial Day, it was snowing lightly and the first 70 feet of the Swan Flat road was drivable with the rest covered with deep snow. It's estimated that the area that we camped at last year still has about 2 to 3 feet of snow. To the south in the Sinks area, they were still snowmobiling. At Cheney Creek, where we had Field Day two years ago, there is a site nearby that collects snowfall data. The snow information obtained from the Snowpack Telemetry or SNOTEL network USU DOC DANIEL site reported 107" of snow with 51" of water content. The Bear River basin area is over 500% of normal on the snowpack snow-water average. See <http://www.wcc.nrcs.usda.gov/snow/> for information on the SNOTEL network. We are definitely in an unusual weather season.



Did you know that the SNOTEL sites use [meteor burst communications](#) technology to communicate to its master data collection station. The SNOTELs VHF radio transmitted signals are reflected at a steep angle off the ever-present band of ionized trails of meteors existing from about 50 to 75 miles above the earth. More information about meteor scatter and weak-signal VHF communication in amateur radio is [here](#) on the ARRL web site.

Back to Field Day for this year, we are hoping that the Swan Flat site is accessible a week before Field Day. If the Swan Flat site is not going to be accessible, then we'll go to Plan B. Ted McArthur AC7II, who is the Field Day activity coordinator, will be sending out the information and updates for Field Day.

There will be no club meetings in June, July, and August. However, there will be some bunny hunts during the summer. The date and time of these bunny hunts will be sent out on the BARC e-mail list server. We will start up our club gatherings again on September 8<sup>th</sup> with the Fall Pot-Luck Social.

Hope everyone has a fun and safe summer. And be sure to put on your calendar June 25 & 26 for Field Day.

73

Cordell  
KE7IK

# UPCOMING ACTIVITIES

RACES VHF Net - 16 June, 8:00 PM

Radio Rocket Recovery - 16-18 June

Wasatch Back Relay - 17 June

Field Day - 25-26 June

MS 150 - 25-26 June

RACES HF Net - 16 July, 8:00 AM 3920 KHz

[Pikes Peak Radio Amateur Association Megafest \(Monument, CO\)](#) - 16 July

[Rocky Mountain Division Convention, Taos, New Mexico](#) - 5-7 August

RACES VHF Net - 18 August, 8:00 PM

Bike the Bear Bicycle Race - 20 August

[Denver Radio Club Hamfest \(Golden, CO\)](#) - 21 August

Club Meeting - Fall Pot-Luck Social - 8 September

LOTOJA Bicycle Race - 10 September

Top of Utah Marathon - 17 September

RACES HF Net - 17 September, 8:00 AM 3920 KHz

Bear 100 - 23-24 September

[Boulder Amateur Radio Club BARCfest \(Longmont, CO\)](#) - 25 September

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BARC Club Meetings are normally on the 2nd Saturday of the month.

Due to the many activities and busy summer the regular Club meetings are not held during the months of June, July and August  
The Ohm Town News is also not published for the months of July and August

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ARES Meetings are usually held on the Third Wednesday of each month at 7 P.M. at the Cache County Sheriffs Complex.  
Contact Tyler Griffiths for more information.

## A few highlights of the Area 7 QSO Party 7-8 May



May 14 Club Meeting—Wally's WISE Presentation



START-OF-LOG: 2.0  
 ARRL-SECTION: UT  
 CALLSIGN: W7IVM  
 CLUB: Bridgerland Amateur Radio Club  
 CONTEST: 7QP-QSO-PARTY  
 CATEGORY: MULTI-ONE ALL LOW MIXED  
 CLAIMED-SCORE: 11222  
 OPERATORS: AC7II, AE7EI, AE7HB, K7TWT, KE7IK, KF7ATL, KF7LQS, N7UWX, KF7PEU, KE7TAS, KD7WRA  
 NAME: Bridgerland Amateur Radio Club  
 ADDRESS: P.O. Box 111  
 ADDRESS: Providence, UT 84332  
 ADDRESS: USA  
 CREATED-BY: N1MM Logger V11.4.5

QSO: 7199 PH 2011-05-07 1316 W7IVM	59 UTCAC N7XS	59 WASNO	1
QSO: 7191 PH 2011-05-07 1321 W7IVM	59 UTCAC W6AFA	59 CA	1
QSO: 7168 PH 2011-05-07 1326 W7IVM	59 UTCAC NK7U	59 ORBAK	1
QSO: 7177 PH 2011-05-07 1337 W7IVM	59 UTCAC WA5ZUP	59 NM	1
QSO: 7188 PH 2011-05-07 1341 W7IVM	59 UTCAC KK7AC	59 AZAPH	1
QSO: 7173 PH 2011-05-07 1349 W7IVM	59 UTCAC K7LY	59 AZMHV	1
QSO: 7185 PH 2011-05-07 1354 W7IVM	59 UTCAC KB7STO	59 WATHU	1
QSO: 7185 PH 2011-05-07 1356 W7IVM	59 UTCAC W7VV	59 WASNO	1
QSO: 7185 PH 2011-05-07 1357 W7IVM	59 UTCAC W7PP	59 AZMCP	1
QSO: 7170 PH 2011-05-07 1406 W7IVM	59 UTCAC K7NCG	59 WASNO	1
QSO: 7170 PH 2011-05-07 1410 W7IVM	59 UTCAC K7JJ	59 ORMAR	1
QSO: 7170 PH 2011-05-07 1412 W7IVM	59 UTCAC W1BYH	59 MA	1
QSO: 7170 PH 2011-05-07 1412 W7IVM	59 UTCAC WW7D	59 WAKNG	1
QSO: 7170 PH 2011-05-07 1415 W7IVM	59 UTCAC W6TYG	59 CA	1

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## The ARRL Letter for May 5, 2011

### FCC News: FCC Seeks to Raise the Fee for Vanity Call Signs



The FCC released a *Notice of Proposed Rulemaking* on May 3, seeking to raise the fee for Amateur Radio vanity call signs. Currently, a vanity call sign costs \$13.30 and is good for 10 years; the new fee, if the FCC plan goes through, will go up to \$14.20 for 10 years, an increase of 90 cents. The FCC is authorized by the *Communications Act of 1934 (as amended)* to collect vanity call sign fees to recover the costs associated with that program. The vanity call sign regulatory fee is payable not only when applying for a new vanity call sign, but also upon renewing a vanity call sign for a new term. Read more [here](#).

### Hays Affinity Group Provides ARRL Members with Equipment Protection, Club Liability Insurance Plans

Effective May 1, 2011, the ARRL began a new partnership to provide its ARRL-sponsored Equipment Insurance and Club Liability Insurance plans. The League has signed an agreement with Hays Affinity Group to serve as the program administrator to provide equipment insurance to its members who choose to elect coverage. In addition, Hays will also provide club liability insurance to ARRL Affiliated Clubs for those clubs that wish to take advantage of that program. Hays will be replacing Marsh Affinity Group Services as the program's administrator and has introduced new policies for both plans, underwritten by the Hanover Insurance Company. Read more [here](#).



## The ARRL Letter for May 12, 2011

### *Amateur Radio in Space: Celebrating 50 Years of OSCAR I and Amateur Radio Satellites*

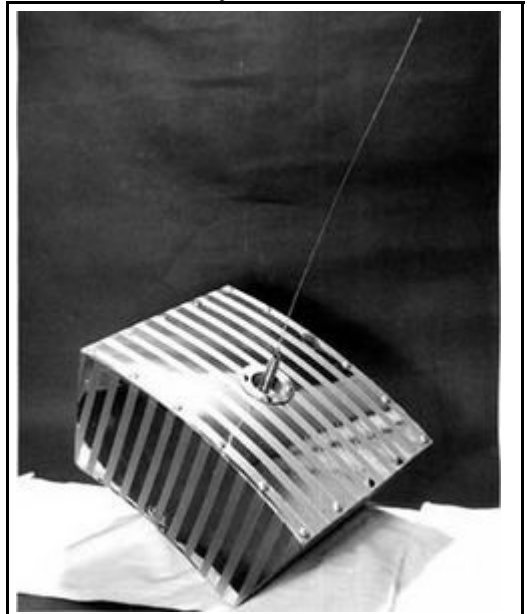
By ARRL News Editor S. Khrystine Keane, K1SFA

*1961. It was the middle of the Cold War. John F. Kennedy is inaugurated as the 35th President of the United States. The Bay of Pigs invasion fails in Cuba. The Beatles perform for the first time at the Cavern Club in Liverpool. Freedom Riders are arrested in Jackson, Mississippi for "disturbing the peace" after disembarking from their bus. Construction of the Berlin Wall begins. Roger Maris of the New York Yankees hits his 61st home run in the last game of the season, beating the 34 year old record held by Babe Ruth. Barbie gets a boyfriend when Mattel introduces the Ken doll.*

Just four years earlier, the Soviet Union had launched *Sputnik I*, the first human-made object to orbit the Earth, ushering in the Space Age. For the next 30 years, the Cold War rivalry between the US and the former Soviet Union focused on attaining firsts in space exploration. These were seen as necessary for national security and symbolic of technological and ideological superiority. The "space race" involved pioneering efforts to launch artificial satellites, sub-orbital and orbital human spaceflight around the Earth, as well as piloted voyages to the Moon.

1961. *Mercury-Redstone 2 launches into space carrying Ham the Chimp. Soviet cosmonaut Yuri Gagarin becomes the first human in space. Alan Shepard becomes the first American in space aboard Mercury-Redstone 3. Gus Grissom, piloting the Mercury-Redstone 4 capsule Liberty Bell 7, becomes the second American to go into space. OSCAR I -- Orbiting Satellite Carrying Amateur Radio -- the very first Amateur Radio satellite, is launched into space.*

Barely four months after the successful launch of Sputnik I, the United States launches the unmanned Explorer I on January 31, 1958. At about that same time, a group of hams on the West Coast -- Lance Ginner, K6GSJ; Chuck Smallhouse, W6MGZ; Ed Beck, K6ZX; Al Diem; Chuck Townes, K6LFH (SK), and Nick Marshall, W6OLO (SK) -- begin toying with the idea of launching an Amateur Radio satellite into orbit and organized themselves into Project OSCAR. After a series of high level exchanges among Project OSCAR members, the ARRL and the US Air Force, a launch opportunity on a Thor DM-21 Agena-B rocket from Vandenberg Air Force Base in California was secured for the very first Amateur Radio satellite: *OSCAR I*. It was successfully launched into a low Earth orbit on the morning of December 12, 1961 -- four years after the launch of Sputnik I. The satellite



Launched into space on December 12, 1962, OSCAR I was the first Amateur Radio satellite -- and the first non-government bird -- to go in to space. [Photo courtesy of AMSAT]



ARRL Lab Test Engineer Bob Allison, WB1GCM, holds a newly functional OSCAR I. The satellite is shown with its cover open to the left, making the bird appear twice as large as it actually is. [S. Khrystyne Keane, K1SFA, Photo]

was also the world's first non-government bird.

Fifty years -- 1961 to 2011 -- is a long time -- and an important milestone, thought ARRL Lab Test Engineer Bob Allison, WB1GCM. And then he had a lightbulb moment: Why not take the back-up OSCAR I on display at ARRL Headquarters and make it work again? So W1AW Station Manager Joe Garcia, NJ1Q and Allison began tinkering with the satellite, one of three made by Project OSCAR. One of the satellites went up into space in 1961, one is on display at the Smithsonian Air and Space Museum in Washington, DC and the other was until recently sitting in a display case on the first floor of the HQ building in Newington.

After much trial and error, Garcia finally got OSCAR I to transmit a signal on 145 MHz, just as the original satellite did. "Since specific technical literature on the satellite was unavailable, information taken from 1962 QST and CQ articles assisted in the reconstruction of the transmitter in the ARRL unit," Garcia explained. "Much care was given to salvage the original components, although time had taken its toll on most of the circuitry. As such, although the transmitter functions, the actual keying of the transmitter is performed using a PIC beacon keyer. Power is supplied using a standard wall-cube providing 12 V dc."

In honor of OSCAR I's 50th anniversary, the rebuilt satellite will be on display at the ARRL EXPO area at the Dayton Hamvention, May 20-22 at Hara Arena in Trotwood, Ohio. "We have hooked OSCAR I up to a dummy load running very low power, and as you walk by, you will hear it transmit "HI HI," just as it did 50 years ago," Allison said. Since the transmission does not identify, you won't be able to pick it up on your handheld transceiver while at Hara. Read more [here](#).



The inner workings of the newly functional OSCAR I satellite at ARRL Headquarters. This bird will be on display at the ARRL EXPO at the Dayton Hamvention, transmitting "HI HI," just as it did from space 50 years ago. See a larger photo [here](#). [S. Khrystyne Keane, K1SFA, Photo]

## ***Amateur Radio in the Classroom: RIT Students Successfully Launch High Altitude Balloon***

The Rochester Institute of Technology Amateur Radio Club, K2GXT, had a successful launch of RITCHIE-1 -- a custom high altitude balloon designed by members of K2GXT -- at the Imagine RIT Festival on May 7. According to RITARC Vice President Bryce Salmi, KB1LQC, the goal of the launch was not to reach high altitudes to take images, but to engineer a reliable, modular and reusable payload with good engineering practice. "Saturday's launch went perfect," Salmi told the ARRL. "The launch was streamed live to the Internet and a local television station even produced a segment for their newscast on it." The club won the Academic Award for the balloon at the festival. Read more [here](#).



K2GXT club members watch as their high altitude balloon gains altitude. This image was taken by the camera in the balloon. [Photo courtesy of K2GXT]

## **The ARRL Rocky Mountain Division update for May 2011**

===== 2011 ARRL Division Award Recipients =====

Congratulations to **Shirley Larsen AD7HL of Mendon, Utah** and **Anna Veal W0ANT of Littleton, Colorado** for being awarded the 2011 Rocky Mountain Division Ham of the Year and Rocky Mountain Division Young Ham of the Year awards (respectively)!

Shirley was first licensed in 1977 and has a huge resume of ham operations from around the world (check out her QRZ profile). An active member of ARRL and the Bridgerland Amateur Radio Club, Shirley has been a valuable mentor and always one to lead by example through her activity on the air. She was asked to find a solution to getting the club's female membership active, and she has sure delivered. It began by organizing a ladies net twice a month, which turned into potluck dinners, tours of city EOCs, technical sessions, Field Day homebrewing parties, instruction to become effective net control stations, and more. Shirley is also very active on the public service side of ham radio, and enjoying mobile operations, APRS, digital modes, satellite operations, and more.

Anna, our Rocky Mountain Division Young Ham of the Year, may be 10 years old but she's running with the best of them. First licensed in 2009, she enjoys transmitter hunting and is very much involved in contesting. She attended Contest University in Dayton in May of 2010 and scored first place in the inaugural ARRL Rookie Contest earlier in

2010. In August, she operated from K0RF's contest station for NAQP

SSB as a SO2R op and made 672 QSOs. Anna is a teacher in her grade school's Rabbit Ears Radio Club, a member of ARRL, the Mile High DX Association, and Grand Mesa Contesters. This weekend she'll be speaking at Dayton Hamvention's Contest University and Youth Forum.

Keep an eye on Anna, because she's going places. And if ham radio's legacy is any reflection of her, things are going to be in super shape.

Both will be awarded a great looking plaque for their achievement during the Saturday dinner banquet at the 2011 ARRL Rocky Mountain Division Convention. If you have a spare QSL card lying around, please send one to each of these wonderful hams with a note of congrats!

Judges for this year's award were Section Managers Jeff Ryan K0RM (CO), Don Wood W5FHA (NM), Mel Parkes NM7P (UT), Garth Crowe N7XKT (WY), and one other ARRL member within each of their sections: Jack Ciaccia WM0G (CO), Jim Hunter NM5JH (NM), Bob Craven N7GTE (UT), and David Gregory N7COA (WY). Vice-Director Dwayne Allen WY7FD was at the ready to break any potential tie votes.

No nominations were received for the Rocky Mountain Division Technical Achievement award.



# The ARRL ARES E-Letter for May 25, 2011

## N5FDL's Seven Tips: How to be a Volunteer that Leaders Love

Having spent two months talking about how to build and kill EMCOMM groups, this month I'll touch on what it takes to be the volunteer every leader wants on his or her team. Here are seven tips:

*Sign-up and show-up* - This is really simple, but can't be overstated. Leaders need dependable volunteers and need them to commit early. We need to be able to plan based on the number of volunteers we can expect. So sign-up early, let your leader know if your plans are "tentative," and cancel as soon as you know you cannot attend. That makes the planning job much, much easier. Ten people who become available the "day of" aren't very helpful, unless I have ten unexpected no-shows. People respect our group because they know if we commit to something, we will deliver. This group reliability depends on volunteers who are equally reliable.

*Dress like an emergency communications professional* -- I feel stupid saying this, but what we wear impacts the image of all Amateurs. Now that we wear orange or green safety vests much of the time, individual fashion expression is not so apparent to served agencies or the public. However, as unpaid professionals we need to look like the paid professionals we work alongside.

In general, dress in office work/casual office attire when on an assignment, unless you have a special reason (cleared with your leaders) for dressing differently. If you don't wear an official government-issued patch, I am not wild about uniforms. I have a Sheriff's SAR uniform - silver badge and all - and I try very hard not to wear it. Polo shirts (with your group's logo) are almost always the best thing to wear. Try not to have too many logos or call signs (even your own) visible at the same time.

*Smile, Darn Ya, Smile!* - We all have better and worse days, but great volunteers develop a "game face" and "game attitude" they bring to public events. Whiners are not allowed. Egos get checked at the door. No, it really isn't about you, it's just what net control said or did, probably without thinking, and usually in the heat of the moment.

*Seek Feedback (And Offer It)* - We all need to talk about what we do well as well as where we could improve. Volunteers need to understand that the people who provide feedback (volunteer bosses) are sometimes insensitive louts. Please forgive us. We didn't mean to hurt your feelings and it really isn't personal. Nor is it personal when you tell leaders how we might improve. We are here to serve the public and our communities and we win or lose as a team.

The key to this is being a decent human being and treating others the way you'd want to be treated yourself. Sound familiar?

*Build Your Skills* - Newcomer mistakes must be forgiven. And some people - like me - make the same silly mistakes over and over. But, we need to constantly "sharpen the saw," as the book *7 Habits of Highly Successful People* calls it. Great volunteers sharpen the saw on a regular basis. The reason we provide support for all these bike rides, community fairs, rodeos and other non-emergency events is two-fold. Sometimes these events become real emergencies. Mostly, though, we're training for when "the big one" (whatever that is where you live) happens. Use these events to train yourself while having fun. Then read, take classes, do free online training, anything to improve your skills. Reading this newsletter is a good use of your time.

*Help solve problems* - I was really pleased at a recent event when our volunteers at a remote site solved problems that occurred at their location without help from anyone. It was an issue related to signals and geography and these were new hams - all KJ6 call signs - who took initiative and made things better on the spot. And some people say HamCram hams are know-nothings! In the process, they improved our ability to serve the organization we were working for. Great volunteers give great customer service.

*Observe Lines of Authority* - Not long ago, I came unglued (it had been a bad day) when a fairly inexperienced volunteer tried to do something that went against the goals of the organization. It was not ill-intended, just inexperience. But, it was the second or third problem. This was a hugely promising volunteer, who just needed to understand why certain things are done the way they are. Even insensitive louts sometimes have good reasons behind their logic.

Good volunteers have ideas and want something to do. They want to contribute but can be overly enthusiastic and cause problems without meaning to. Long story short, the volunteer and I decided to give each other the benefit of the doubt, and at his first event he performed marvelously. He wants to become a leader and at the rate he is going, he will. But, he will need to work within the rules of the organization and ask questions before just "doing."



This is another way of saying, "Respect your elders." But if you feel your local leaders are killing the group don't just sit and watch it happen. That is a topic for another column, based on some of the letters I've been getting from E-Letter readers.

"What did you do at the bike race, dear?" That is what my wife, K6SWE, asked Saturday after I got home from working all day at a bicycle race. As leader of the group, I delegated much of the organizing to Matt, K16ZTY, who served as net control. I purposely arrived late so Matt and his assistant NCS, Conrad, KJ6CNV, would get started without me. They did just fine, though I was ready to jump in if needed (I can delegate tasks but not responsibility).

What did I do from 0730 until 1530? Mostly drive around to make sure things were going OK. I occasionally cut in on the radio to ask a question, offer a clarification, and help handle emergencies -four riders were injured during the day.

The most critical thing I did was help get our operators moved around and instructed as to how to assist Highway Patrol, fire and race organizers when a racer had to be airlifted from the scene after a crash. I also took the injured woman's friends and their bikes back to the start line and later hauled in another rider with a minor injury and her bike. I also filled in at various locations when operators needed a break, etc.

What was the most important thing I did? I made sure our operators all got the lunches and t-shirts the race organizers provided for them. I made deliveries when necessary and made sure everyone was taken care of. My operators, hopefully, felt supported, fed, happy, and got a nice souvenir for their efforts.

Making the troops as happy as possible is key for any manager's success--especially when the workers are not getting paid. Leaders exist to support their volunteers, not vice versa. - ARES® E-Letter Contributing Editor [David Coursey, N5FDL](#), is an emcomm leader in San Joaquin County, California and author of the N5FDL.com blog.

## **The ARRL Letter for May 26, 2011 FEMA Administrator Calls Amateur Radio "The Last Line of Defense"**

In an [FCC forum](#) on earthquake communications preparedness, Federal Emergency Management Agency (FEMA) Administrator Craig Fugate described the Amateur Radio operator as "the ultimate backup, the originators of what we call social media." The forum-- held May 3 at FCC Headquarters in Washington, DC -- brought together officials from the White House, the Department of Homeland Security ([DHS](#)), the United States Geological Survey ([USGS](#)), FEMA, the FCC and the private sector. Fugate and FCC Bureau of Public Safety and Homeland Security Chief Jamie Barnett gave the opening remarks.

Later in the forum, Fugate spoke more on Amateur Radio. "During the initial communications out of Haiti, volunteers using assigned frequencies that they are allocated, their own equipment, their own money, nobody pays them, were the first ones oftentimes getting word out in the critical first hours and first days as the rest of the systems came back up," he told the forum. "I think that there is a tendency because we have done so much to build infrastructure and resiliency in all our other systems, we have tended to dismiss that role 'When Everything Else Fails.' Amateur Radio oftentimes is our last line of defense."

Fugate said that he thinks "we get so sophisticated and we have gotten so used to the reliability and resilience in our wireless and wired and our broadcast industry and all of our public safety communications, that we can never fathom that they'll fail. They do. They have. They will. I think a strong Amateur Radio community [needs to be] plugged into these plans. Yes, most of the time they're going to be bored, because a lot of the time, there's not a lot they're going to be doing that other people aren't doing with Twitter and Facebook and everything else. But when you need Amateur Radio, you really need them."



In an earthquake communications preparedness forum sponsored by the FCC, FEMA Administrator Craig Fugate praised Amateur Radio, saying "...when you need Amateur Radio, you really need it."

You can watch a [video of the forum](#) on YouTube. Fugate's remarks begin at 18:55.

## ***On the Air: Russia Now Permits Reciprocal Licensing Through CEPT***



On May 18, the European Communications Office (ECO) in Copenhagen added the Russian Federation to the list of countries that accept the CEPT reciprocal operating arrangements. This means that US hams who hold an FCC-issued General, Advanced or Amateur Extra class Amateur Radio license may operate in Russia, as well as the other countries covered by the European Conference of Postal and Telecommunications Administrations (CEPT), subject to the regulations in force in the country visited. Read more [here](#).

## ***Forecasters Calling for "Above-Average" Hurricane Season***

Forecasters with the National Hurricane Center are calling for an "above-average" Atlantic hurricane season for 2011. In its initial outlook for the 2011 Atlantic hurricane season -- which runs from June 1-November 30 -- the National Weather Service's Climate Prediction Center (CPC) is calling for a 65 percent probability of an above-normal season, a 25 percent probability of a near-normal season and a 10 percent probability of a below-normal season.

CPC Forecasters say that there is a 70 percent chance of having 12-18 named storms, of which six to 10 could become hurricanes, including three to six major hurricanes (Category 3, 4 or 5). Tropical systems acquire a name -- the first for 2011 will be Arlene -- upon reaching tropical storm strength with sustained winds of at least 39 miles per hour. Tropical storms become hurricanes when winds reach 74 miles per hour and become major hurricanes when winds increase to 111 miles per hour. An average season has 11 named storms, including six hurricanes with two becoming major hurricanes. Read more [here](#).



In 2005, Hurricane Katrina strengthened into a powerful Category 5 hurricane with sustained winds of 160 miles per hour. The boost came just hours after Katrina reached Category 4, with winds of 145 miles per hour, as it gathered energy from the warm water in the Gulf of Mexico. In this photo from NASA, Katrina is shown on its path toward the coastlines of Louisiana and Mississippi.

## ***Amateur Radio in the Classroom: NASA and ARISS Reach Out to Educators***



On May 19, the Education Office at NASA's Johnson Space Center's notified almost 20,000 US educators about the Amateur Radio on the International Space Station (ARRL ARISS) Project. According to ARRL ARISS Program Manager Rosalie White, K1STO, this kicks off the first of a number of new processes that the ARISS US team will put into motion to get educators more involved in the program, which coordinates Amateur Radio contacts between the ISS and educational institutions around the world. Read more [here](#).

## Questions for Technician Class License

1. [T1A04) Which of the following meets the FCC definition of harmful interference?
  - A. Radio transmissions that annoy users of a repeater
  - B. Unwanted radio transmissions that cause costly harm to radio station apparatus
  - C. That which seriously degrades, obstructs, or repeatedly interrupts a radio communication service operating in accordance with the Radio Regulations
  - D. Static from lightning storms
2. [T2A04) What is an appropriate way to call another station on a repeater if you know the other station's call sign?
  - A. Say "break, break" then say the station's call sign
  - B. Say the station's call sign then identify with your call sign
  - C. Say "CQ" three times then the other station's call sign
  - D. Wait for the station to call "CQ" then answer it
3. [T3A06) What term is commonly used to describe the rapid fluttering sound sometimes heard from mobile stations that are moving while transmitting?
  - A. Flip-flopping
  - B. Picket fencing
  - C. Frequency shifting
  - D. Pulsing
4. [T4A08) Which type of conductor is best to use for RF grounding?
  - A. Round stranded wire
  - B. Round copper-clad steel wire
  - C. Twisted-pair cable
  - D. Flat strap
5. [T5A02) Electrical power is measured in which of the following units?
  - A. Volts
  - B. Watts
  - C. Ohms
  - D. Amperes
6. [T6B07) What does the abbreviation "LED" stand for?
  - A. Low Emission Diode
  - B. Light Emitting Diode
  - C. Liquid Emission Detector
  - D. Long Echo Delay
7. [T7C07) What happens to power lost in a feedline?
  - A. It increases the SWR
  - B. It comes back into your transmitter and could cause damage
  - C. It is converted into heat
  - D. It can cause distortion of your signal
8. [T8A06) Which sideband is normally used for 10 meter HF, VHF and UHF single-sideband communications?
  - A. Upper sideband
  - B. Lower sideband
  - C. Suppressed sideband
  - D. Inverted sideband
9. [T9B06) Which of the following connectors is most suitable for frequencies above 400 MHz?
  - A. A UHF (PL-259/SO-239) connector
  - B. A Type N connector
  - C. An RS-213 connector
  - D. A DB-23 connector
10. [T0C07) What could happen if a person accidentally touched your antenna while you were transmitting?
  - A. Touching the antenna could cause television interference
  - B. They might receive a painful RF burn
  - C. They might develop radiation poisoning
  - D. All of these choices are correct

(For answers to test questions see page 12)

# BARC Club Officers

## *President*

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