



THE OHM TOWN NEWS

Voice of the Bridgerland Amateur Radio Club

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February 2010

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PRESIDENT'S MESSAGE

The recent earthquake in Haiti and the pictures of the damage refreshes in my mind what the devastating effects that an earthquake can have. We also live in an area where earthquakes can occur and similar damage could happen here. We are mostly preoccupied with our daily routine and think little of preparing our self, family, and home for the many different kinds of disasters or emergencies that could happen in our area from winter storms, flooding, fire, or earthquakes. Some disasters give warning like a storm preceding a flood. Others, like earthquakes give no warning. Once a disaster happens, the time to prepare is gone and all you can do is cope.

A recent study from the Utah Geological Survey indicated that about 500 years ago an earthquake tore a deep gash along a 35 mile segment of the Wasatch Fault between North Salt Lake and North Ogden. That earthquake was likely a magnitude 6.5 or 7. Scientists say that the Wasatch Fault has a 1 in 7 chance of being hit by a magnitude 7.0 earthquake in the next 50 years based upon evidence of large earthquakes that happened every 1,500 years or so for the last 10,000 years. The University of Utah has a web site, <http://quake.utah.edu/> , which shows a map of recent earthquakes in the Utah and Yellowstone Regions. The US Geological Survey has a site, <http://earthquake.usgs.gov/>, that show the latest earthquakes in the US and world.

When a disaster strikes your community, emergency services and government agencies may not be able to respond to your needs immediately. Their buildings, equipment, personnel, communication, and mobility may be severely hampered by the event. They will be overwhelmed. Experts advise that you should be prepared to be on your own for a minimum of three days or more after a disaster. The important elements of this preparedness are to have a basic emergency plan and a 72-hour kit. The Utah Department of Public Safety Division of Homeland Security has a web site, <http://bereadyutah.gov/>, which has emergency preparedness information links



for “Winter Weather Preparedness” and “Download Utah’s Earthquake Preparedness Guide”. The Utah’s Earthquake Preparedness Guide link takes you to a comprehensive handbook, “Putting Down Roots in Earthquake Country”, which provides a variety of information on the threat posed by earthquakes in Utah and explains how you can prepare for, survive, and recover from these inevitable events. Also FEMA, <http://www.fema.gov/> , gives information on preparing for other types of disasters.

The Utah Division of Homeland Security and Federal Emergency Management Agency's Region 8 are developing a catastrophic earthquake plan for

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(Presidents Message Continued from page 2)

the Salt Lake area. The process is going to work towards a full-scale exercise with FEMA in March of 2012, where they will spend three days doing a full-scale exercise to simulate emergency response and likely problems. This will also involve other areas of the state in the exercise.

If you don't have a 72 hour emergency kit, take the time to prepare what you can now and make a list of items that you will need to get. Every little bit helps at being prepared. Disaster Preparedness means taking steps necessary to make sure you and those in your household are safe and as comfortable as possible in the aftermath of a disaster.

73,
Cordell
KE7IK

.....
Fellow ARRL Members:

A survey/questionnaire soliciting your input, feedback, and ideas on various League-related topics has been released, and is available for your taking at this time. The survey, available online or in printable formats, is open until March 6, 2010.

Only ARRL members belonging to the Rocky Mountain Division may take this important survey. In order to take it, you will be asked to provide your ARRL membership number to verify membership within the League and our Division. You can find your membership number on your ARRL membership card, the mailing label of QST magazine, and via the ARRL website.

To take your survey, please head over to www.RockyMountainDivision.org where you'll find a link to the questionnaire. Please help us spread the word to all ARRL members within the Rocky Mountain Division.

Thank you, 73, and see you on the airwaves!
ARRL Rocky Mountain Division
Director: Brian Milesosky, N5ZGT

This question was published by Brian Milesosky, in the Rocky Mountain Division newsletter in December. Think it through and see if you can decipher what happened and come up with the answer. I will reprint the question with the answer next month. (OTN Newsletter Editor)

Question: The President, Vice-President and Secretary of the Podunk Hollow Amateur Radio Club all took a trip out to the ARRL headquarters.

Being the frugal folks they are, they decided to share the hotel room and split the cost. The desk clerk said it would be \$30 for the night.

All three men coughed up \$10, and went to their room. The clerk noticed that he forgot to give them their ARRL discount of \$5. He gave the bellhop 5 one dollar bills to take to their room. The disgruntled bellhop decided to take \$2 for a tip. He gave each man a dollar back.

Now... Each man has an out of pocket expense of \$9 to report to the Treasurer of the P.H.A.R.C. The question is this: If each man claims \$9 for the room that will add up to \$27 dollars. The bellhop has \$2.

This is \$29. Where is the other dollar?

HAM PROFILE

by Jared B. Luther,

Jesse Walker, KE7WAK, grew up in Northridge, California. He received his undergraduate degree at UC Berkeley. Currently he is a PhD student in the Biology department at USU. He studies Animal Community Ecology, and right now is working with scorpions. He's married to Alyssa Walker, who works as a dog trainer and staff at the Cache Humane Society animal shelter. His dog, Keesha, is an oddly mellow Border Collie. Among his many hobbies other than amateur radio include:

- Photography: He is a photographer for the Utah Statesman, USU's student newspaper, and an active member of the Cache Valley Photographers meetup group
- Scuba Diving: President of the USU Scuba Club
- Personal Finance/Investing: He volunteers as a VITA tax preparer every year
- Computer Geek: He runs Linux for fun!
- Red Cross volunteer: He is a member of the local Disaster Action Team, and also teaches First Aid and CPR classes

... and a bunch of other things.

Jesse wanted to get certified in amateur radio when he was about 12. He was interested in electronics, and got a Tech no-code study guide from Radio Shack, but never followed through to take the exam. Also, he didn't know any hams. The interest got put on the back-burner until an announcement was made in church that a free class (taught by Phil Rasmussen, N7JFG) was going to be taught, and the church members were encouraged to get licensed. He jumped at the chance, took the class, and was certified a month or so later at the next test session (September 2008). He studied independently for his General license, which he earned at the next test session (December 2008, on the day of his wife's graduation from USU). Somewhere along the way, he purchased a Yaesu FT-60 dual-band handheld, which is his only radio at the moment. He has a mag-mount mobile antenna attached to the excellent ground plane that is the metal roof of his mobile home. Since getting licensed, he has volunteered at several club public service events, and attended the state RACES conference twice. He is currently the Emergency Communications Specialist for his LDS Church Stake (University 2nd).



Jesse has definitely jumped into ham radio with the same enthusiasm as his other hobbies. He is already been a great help to our club activities and events. Introduce yourself when you see Jesse at a club meeting or event, because he'll quickly be off to work on another hobby.

UPCOMING ACTIVITIES

BARC Club Meeting - 13 February, 10:00 AM (see below for info)

RACES VHF Net - 18 February, 8:00 PM

BARC Club Meeting - 13 March, 10:00 AM

RACES HF Net - 20 March, 8:00 AM

Longmont ARC Swapfest, LARCFest (Longmont, CO) - 3 April

BARC Club Meeting - 10 April, 10:00 AM

BARC Club Meeting - 8 May, 10:00 AM

Mountain Man Rendezvous - 25-26 May

Rocky Mountain Division Convention - 28-30 May

At the newly renovated 302-room Platte River Resort in Casper, Wyoming.

BARC Club Meetings are normally on the 2nd Saturday of the month at 10:00 A.M. on the 3rd floor of the Cache County Sheriffs Complex on 200 North and 1225 West, Logan, Utah.

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.

*There are only two tragedies in life...one is not getting what one wants,
and the other is getting it.* Oscar Wilde

*We don't receive wisdom; we must discover it for ourselves after a journey
that no one can take for us or spare us.* Marcel Proust

The Bridgerland Amateur Radio Club (BARC) February 13th meeting topic will be on "PC in the Shack". We will be showing a selection of PC programs that are for the amateur radio operator. Some of the programs are UI-View, Winpack, Winlink, Skype, Echolink, DV-Dongle, Ham Radio Deluxe, DXLab, VOAProp, Beacon Time Wizard, VHF Propagation Maps, and a few others. We'll give a brief demonstration of these programs so you can have an idea on how they work and what they are used for.

The ARRL Letter for January 7, 2010

2009 Sees Surge of New Amateur Radio Licensees

NEW FCC LICENSES ISSUED 2005 THROUGH 2009					
Year	2005	2006	2007	2008	2009
Jan	876	1,274	1,647	1,755	1,960
Feb	1,357	1,605	2,435	2,998	2,263
Mar	1,705	2,531	3,478	2,816	3,463
Apr	1,486	1,728	2,673	3,090	3,430
May	1,651	2,283	2,607	2,562	2,717
Jun	1,493	1,967	2,281	2,402	3,011
Jul	906	1,401	1,786	2,077	2,220
Aug	1,500	1,623	2,183	2,084	2,102
Sep	1,139	1,357	1,462	1,763	2,116
Oct	1,385	1,781	2,109	2,303	2,404
Nov	1,540	1,993	2,132	2,197	2,344
Dec	1,330	1,569	1,935	2,019	2,114
Totals	16,368	21,112	26,728	28,066	30,144

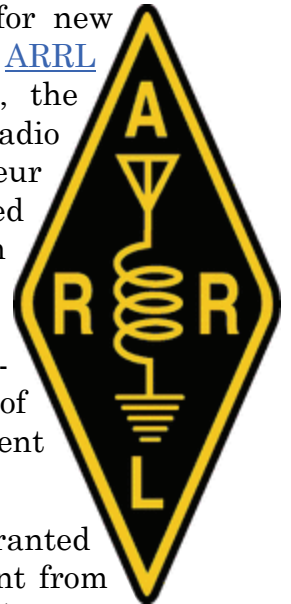
In 2009, the FCC issued more than 30,000 new Amateur Radio licenses - an almost 3 percent increase in the number of new licenses issued in 2008. At the end of 2009, there were 17,084 Novices, 334,245 Technicians, 150,970 Generals, 60,795 Advanced and 119,403 Amateur Extra class licensees.

"When looking at the statistics over the last 10 years, these are some of the highest numbers we've seen," Somma explained. "Additionally, our total number of licensees across all three classes has grown each year." Currently there are 682,500 licensed Amateur Radio operators in the US, an almost 3 percent rise over 2008. In 2008, there were 663,500 licensed amateurs; there were 655,800 in 2007. Broken down by license class, at the end of 2009 there were 17,084 Novices, 334,245 Technicians, 150,970 Generals, 60,795 Advanced and 119,403 Amateur Extra licensees.

"The ARRL VEC has been busy meeting the needs of the Amateur Radio community by helping people to become radio amateurs or upgrade their existing licenses," Somma said. "In 2009, ARRL VEs administered 44,595 exam elements at 6369 [ARRL VEC-sponsored exam sessions](#). The number of amateurs who want to be Volunteer Examiners and who want to teach Amateur Radio classes is also going up -- we've seen a spike in the number of applications from General and Extra class radio amateurs who want to give back to their community by [serving as ARRL examiners](#) and instructors."

Somma applauded all the volunteers whose "hard work and contribution of countless hours of time helps to ensure the future of Amateur Radio. The ARRL VEC thanks our 32,411 VEs from around the world whose dedication and service helped to contribute to the success of Amateur Radio. I am delighted by these important achievements. 2009 was a very good year for Amateur Radio and I am excited by the promise of 2010."

This past year was a banner year for new Amateur Radio licensees. According to [ARRL VEC](#) Manager Maria Somma, AB1FM, the FCC issued more than 30,000 new ham radio licenses. "In 2009, the demand for Amateur Radio exam sessions remained elevated and is still running at a higher rate than before the FCC's restructuring of the license requirements in 2007," Somma said. "This high level of exam session activity has produced an elevated influx of new applications, far outpacing recent years."



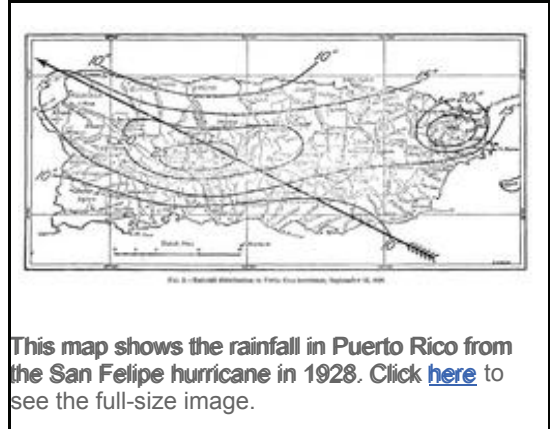
A total of 30,144 new licenses were granted in 2009, an increase of almost 7.5 percent from 2008. In 2005, 16,368 new hams joined Amateur Radio's ranks; just five years later, that number had increased by almost 14,000 -- a whopping 84 percent! The ARRL VEC is one of 14 VECs who administer Amateur Radio license exams.

The ARRL Letter for January 14, 2010 + *Now You Know!:* Hurricane Names

By ARRL News Editor S. Khrystyne Keane, K1SFA

For several hundred years, many hurricanes in the West Indies were named after the particular saint's day on which the hurricane occurred: In his 1938 book *Hurricanes*, Ivan R. Tannehill describes the major tropical storms of recorded history and mentions many hurricanes that were named after saints. On July 26, 1825, [Hurricane Santa Ana](#) struck Puerto Rico with exceptional violence. [Hurricane San Felipe \(the first\)](#) and [Hurricane San Felipe \(the second\)](#) also hit Puerto Rico on September 13 in both 1876 and 1928.

During World War II, the practice of giving hurricanes women's names became widespread in weather map discussions among forecasters, especially Air Force and Navy meteorologists who plotted the movements of storms over the wide expanses of the Pacific Ocean. In 1953, the United States abandoned a confusing two year old plan to name storms by the phonetic alphabet in use at the time (Able, Baker, Charlie and so on) when a new, international phonetic alphabet was introduced. That year, the United States began using female names for storms. The practice of naming hurricanes solely after women came to an end in 1978 when men's and women's names were included in the Eastern North Pacific storm lists. In 1979, male and female names were included in lists for the Atlantic and Gulf of Mexico.



Since 1953, Atlantic tropical storms have been named from lists originated by the National Hurricane Center ([NHC](#)). They are now maintained and updated by an international committee of the World Meteorological Organization ([WMO](#)). There are [six lists of hurricane names](#) and they are used in rotation. This means that the 2010 list will be used again in 2016. According to the NHC, the only time that there is a change in the list is if a storm is so deadly or costly that the future use of its name on a different storm would be inappropriate for reasons of sensitivity such as 2005's Hurricane Katrina). If that occurs, the offending name is stricken from the list and another name is selected to replace it at the WMO annual meeting. Check out the [list of retired names on the NHC Web site](#).



Several names have been changed since the lists were created. For example, on the 2007 list (which will be used again in 2013), Dorian has replaced Dean, Fernand has replaced Felix and Nestor has replaced Noel. For 2010, Colin replaced Charley, Fiona replaced by Frances, Igor replaced by Ivan and Julia replaced by Jeanne. Before 1979 -- when the first permanent six-year storm name list began -- some storm names were simply not used anymore. For example, in 1966, "Fern" was substituted for "Frieda," and no reason was cited. There are only 22 names on each list since the WMO does not use names that begin with Q, U, Y or Z. The names for 2010 are Alex, Bonnie, Colin, Danielle, Earl, Fiona, Gaston, Hermine, Igor, Julia, Karl, Lisa, Matthew, Nicole, Otto, Paula, Richard, Shary, Thomas, Virginie and Walter.

In the event that more than 21 named tropical cyclones occur in the Atlantic basin in a season, additional storms will take names from the Greek alphabet: Alpha, Beta, Gamma, Delta and so on. If a storm forms in the off-season, it will take the next name in the list based on the current calendar date. For example, if a tropical cyclone formed on December 28, it would take the name from the previous season's list of names. If a storm formed in February, it would be named from the subsequent season's list of names.

You can find lists of [names for storms on the NHC Web site for every region of the globe](#), including the Eastern North, Central North and Western North regions of the Pacific Ocean, Australia, Fiji, Papua New Guinea, the Philippines and the Northern and Southwest portions of the Indian Ocean. *Now you know!*

The ARRL Letter for January 21, 2010

+ *Haiti Earthquake: Dominican Hams Attempt to Install Repeaters in Haiti*



Members of the Radio Club Dominicano (RCD) -- the Dominican Republic's IARU Member-Society -- and Union Dominicana de Radio Aficionados (UDRA) arrived in Haiti late last week to install an emergency radio communications station and a mobile station. Shortly after they arrived, the hams returned to the Dominican Republic for safety reasons.

"Within a few hours though, reports via the RCD Facebook page reported that the HI8RCD team of eight amateurs was back in the [Dominican Republic] border town of Jimani," said IARU Region 1 Emergency Communications Coordinator Greg Mossop, G0DUB. "Their convoy, which included other non related Dominicans, was assaulted. The radio amateurs are uninjured, but they decided to leave the capital for safety [reasons] and return to the border unescorted. They report the situation as 'extremely unsafe.'"

The team was able to install two VHF repeaters: one in the Dominican Republic border town of Jumaní and another Port-au-Prince. Mossop said that these repeaters have been used by the Red Cross and Civil Defense since, until quite recently, there has been no other way to communicate. The station at the embassy in Haiti could not be activated.

"The HI8RCD team of amateurs is still in Jumaní, where many wounded are arriving," said IARU Region 2 Secretary Ramón Santoyo, XE1KK. "They are helping Haitians to contact their relatives and friends outside of Haiti, but they can't help the world to find specific individuals in Haiti. They are receiving many e-mails with such requests, but security and road conditions make impossible to look for specific individuals in Haiti at the present." Read more [here](#).

The ARRL Letter for January 28, 2010

+ *Public Service: Haitian Agency Announces Contact Information for Amateurs Going to Haiti to Provide Disaster Relief*



The offices of CONATEL -- Haiti's national telecommunications regulator -- were destroyed in the January 12 earthquake that devastated the island nation. This office, like the FCC in the US, administers the Amateur Radio Service in Haiti. Hams interested in traveling to Haiti to help provide communications support have been at a loss as to whom to contact. CONATEL has set up temporary offices in a Port-au-Prince suburb and has indicated that those volunteers who wish to operate in Haiti to assist with disaster relief need to contact the agency to

get formal reciprocal operating clearance. Read more [here](#).

ARRL Rocky Mountain Division Update — February 2010

The first ARRL board meeting of 2010 took place mid January, and plenty happened. Here are the highlights:

--- An Emergency Communications Advisory Committee (ECAC) was created.

This committee, to be filled with one member from each of ARRL's 15 Divisions, is charged with focusing on emergency communications topics of national scope and making recommendations to ARRL's standing Program and Services Committee (PSC). This committee will not interfere with the Section's ARES organization, as local issues will be left to the Section Manager, SEC and other ARES leadership. However this committee will be instrumental in considering strategic and national topics, such as identification and credentialing, our National Traffic System as it relates to emergency communications, and much more. Brian and Dwayne are considering a number of hams who've been recommended by each Section Manager within the Division for appointment to serve as our Division's representative on the ECAC.

--- Your representation within ARRL grew stronger to a degree.

Director Brian Milesosky was appointed to serve on ARRL's Executive Committee which, composed of just 5 directors, administers the affairs of the League in between Board meetings. Vice-Director Dwayne Allen was appointed to serve on ARRL's Program and Services Committee (PSC).

The PSC is one of ARRL's two standing committees, charged with responsibilities including the development of how ARRL services are delivered to its members, evaluating ARRL's services, and recommending program priorities. It is difficult to be appointed as a Vice-Director to one of the standing committees, and Dwayne's appointment is indicative of the attributes he brings to the table from his activity within ham radio.

--- The ARRL Board voted to adopt a renewed MOU with the American Red Cross.

--- The ARRL Board was given a presentation of the brand-new ARRL website which is slated for launch at the end of February. The new website, rebuilt from the ground up, will provide easier access to the information members like you desire or depend on. Details about the website, to whet your appetite between now and its launch, are available in the March issue of QST that should be heading to your mailbox soon.

--- Section 97.113 of our FCC rules has certainly received a fair amount of attention over the last number of months and the Board took up the issue, raised by FCC last May, as intended. The Board considered the nature of the issue and pondered different positions to help address it, ranging from recommending to FCC that 97.113 should be left alone, to recommending that the regulation be modified to permit drills on behalf of an employer. After much debate, the ARRL Board chose to adopt the latter position and, candidly, your Division leadership did not support that position. Our rationale in a nutshell:

After careful consultation with each Section Manager in our Division who leads the Field Organization including ARES within your area along with a solicitation to the membership of our Division that's filled with ARES members and other emergency communicators, the overwhelming consensus was that 97.113, a regulation that's been in existence for over 15 years (and yet became a concern to some in the ham community only 8 months ago), isn't broken. Many expressed concern about the potential ramifications of liberalizing 97.113 at all.

The main concern voiced by many, and shared by your Division leadership, is liberalizing any rule to further permit communication of any kind on behalf of a business, whether for emergency communications drills or otherwise. The concern is larger than emcomm. Every day we use spectrum for (mainly) our personal enjoyment, which generates no commercial or tax revenue, unlike other spectrum that's used for communications all around us. One only has to look at our own 220 MHz band and other ham allocations above 144 MHz that have had portions reallocated for commercial and government purposes over the last decade or two to realize that our bands are not something we can take for granted. One only has to look at how quickly major corporations and other entities jumped at the chance in 2008 to bid on the use of 700 MHz spectrum vacated by analog television channels to realize the huge demand for access to frequencies, and the money some are willing to pay for it (According to the FCC website, 1091 licenses to use the 700 MHz spectrum were awarded to entities who paid a total of \$19.1 billion).

One only has to look at the current FCC petition to allow commercial medical devices to be used within our own 70-cm band to realize that commercial interests think -- for whatever reason -- our spectrum is better for their use than frequencies already allocated for such devices and purposes. And one only has to look at the recent investigation by FCC into the Indianapolis Police Department's where a number of their officers were found illegally using ham radio to supplement their normal communications channels, including for tactical communication use, to realize that there are commercial and government entities that wish to use ham radio spectrum, even if illegally.

While we undoubtedly support ham radio's contribution to emergency communications and are sure that those wishing to utilize ham radio for emcomm drills on behalf of their employer do so with the best of intentions for their community and ham radio in general, opening our Part 97 rules up for business use -- whether directly or indirectly, and regardless of the purpose or scope -- is a slippery slope that we'd be wise to stay away from completely.

Our job as your ARRL representatives is to keep an eye not only on specific issues that matter to you, but also to be mindful of the bigger picture as it relates to the ham radio we are so privileged to enjoy every day. And our vote, although not a victorious one, on the 97.113 issue reflects that.

--- Additional details from the January Board meeting can be found in the meeting minutes, available for your review at <http://www.arrl.org/announce/board.html>

Questions for General Class License

1. (G1A04) Which amateur band restricts communication to specific channels, using only USB voice, and prohibits all other modes, including CW and data?
 - A. 11 meters
 - B. 12 meters
 - C. 30 meters
 - D. 60 meters
2. (G2A04) Which mode is most commonly used for voice communications on the 17 and 12 meter bands?
 - A. Upper Sideband
 - B. Lower Sideband
 - C. Vestigial Sideband
 - D. Double Sideband
3. (G3A10) What is the sunspot number?
 - A. A measure of solar activity based on counting sunspots and sunspot groups
 - B. A 3 digit identifier which is used to track individual sunspots
 - C. A measure of the radio flux from the sun measured at 10.7 cm
 - D. A measure of the sunspot count based on radio flux measurements
4. (G4B11) Which of the following might be a use for a field strength meter?
 - A. Close-in radio direction-finding
 - B. A modulation monitor for a frequency or phase modulation transmitter
 - C. An overmodulation indicator for a SSB transmitter
 - D. A keying indicator for a RTTY or packet transmitter
5. (G5A08) Why is impedance matching important?
 - A. So the source can deliver maximum power to the load
 - B. So the load will draw minimum power from the source
 - C. To ensure that there is less resistance than reactance in the circuit
 - D. To ensure that the resistance and reactance in the circuit are equal
6. (G7A04) What should be the approximate minimum peak-inverse-voltage rating of the rectifier in a half-wave power supply?
 - A. One-half the normal peak output voltage of the power supply
 - B. Half the normal output voltage of the power supply
 - C. Equal to the normal output voltage of the power supply
 - D. Two times the normal peak output voltage of the power supply
7. (G8A08) What happens to the signal of an over-modulated single-sideband phone transmitter?
 - A. It becomes louder with no other effects
 - B. It occupies less bandwidth with poor high frequency response
 - C. It has higher fidelity and improved signal to noise ratio
 - D. It becomes distorted and occupies more bandwidth
8. (G9C19) What type of directional antenna is typically constructed from 2 square loops of wire each having a circumference of approximately one wavelength at the operating frequency and separated by approximately 0.2 wavelength?
 - A. A stacked dipole array
 - B. A collinear array
 - C. A cubical quad antenna
 - D. An Adcock array
9. (G0A12) What precaution should you take whenever you make adjustments or repairs to an antenna?
 - A. Ensure that you and the antenna structure are grounded
 - B. Turn off the transmitter and disconnect the feedline
 - C. Wear a radiation badge
 - D. All of these answers are correct
10. (G0B10) Which of the following is a danger from lead-tin solder?
 - A. Lead can contaminate food if hands are not washed carefully after handling
 - B. High voltages can cause lead-tin solder to disintegrate suddenly
 - C. Tin in the solder can "cold flow" causing shorts in the circuit
 - D. RF energy can convert the lead into a poisonous gas

(For answers to test questions see page 11)

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Answers to questions on page 10: 1-D, 2-A, 3-A, 4-A, 5-A, 6-D, 7-D, 8-C, 9-B, 10-A