



THE OHM TOWN NEWS

Voice of the Bridgerland Amateur Radio Club

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

October 2010

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ARRL Affiliated



PRESIDENT'S MESSAGE

September was a busy month for amateur radio supporting public service events in our area. The events were the LOTOJA bicycle race, the Top of Utah Marathon, and the Bear 100. These events are a great way for individuals to operate their radios and practice their radio communication skills.

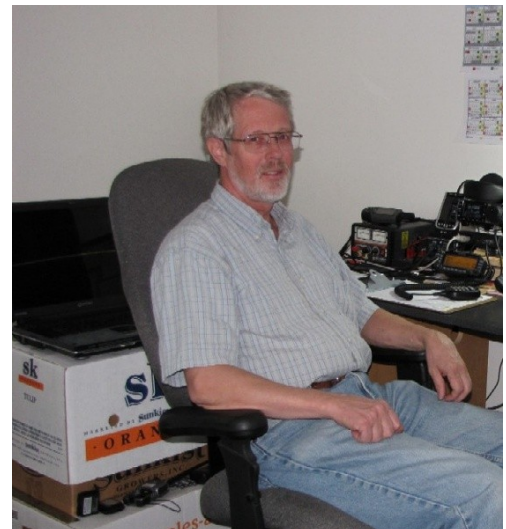
LOTOJA (short for Logan to Jackson) is the longest one-day bicycle race of 206 miles in the country that is sanctioned by the United States Cycling Federation. The course includes three mountain passes with total climbing of nearly 10,000 feet during the race. There are over 2800 bicyclists who are divided into three classes, competitive licensed and competitive citizen classes, and fun ride class, that participate in this race with their support crews and vehicles.

With the number of bicyclists and the distance of the race, there are over 100 amateur radio operators from the three states which the race operates in to help with all aspects of communication needs to support the race. Amateur radio operators are from Ogden to Logan UT, Preston to Montpelier ID, and Afton WY areas. The amateur radio operators provide many essential services for the race that include: net control communications for the entire event and race route, "neutral wheel" support for the cyclists; communications and support at the feed zones; the "eyes and ears" of the race, assisting event organizers, race officials, and public safety officers in maintain a safe event; helping to connect cyclists with their support vehicles; and calling for medical assistance when needed.

The Top of Utah Marathon course starts at Hardware Ranch Elk Refuge, and travels down Blacksmith Fork Canyon and on into downtown Logan. The course drops approximately 1045 ft. over the 26 miles. This race includes different age categories for runners, and a category for wheelchair and handcycling wheelchair racing. This year there were over 2000 participants in the race. This race is part of the Utah Grand Slam where participants run a series of four marathons in the state throughout the calendar year.

Amateur radio operators provide radio support for net control, start line, finish line, roving vehicles, and at many of the mile intervals and aid stations placed along the race course. Radio operators help in providing status of the race at their location, relaying information to the rovers, race officials, and others to keep things running smoothly during the race.

The Bear 100 Mile Endurance Run is an ultra marathon that traverses the Wasatch/Bear River Range, from Logan, Utah to Fish Haven, Idaho. With 21,986 ft (6,701 m) of total climb and an average elevation of 7,700 ft (2,300 m), it is one of the more difficult ultra marathons. The race has a 36 hour time limit and many of the runners are on the course during the nighttime. The Bear 100 is part of the "Rocky Mountain Slam," which a runner completes if s/he finishes the Hardrock 100 plus three of four other races in the Rocky Mountains: Leadville Trail 100, the Bear 100 Mile Endurance Run, the Bighorn 100, or the Wasatch Front 100 Mile Endurance Run. The award is presented at and hosted by the Bear 100 Mile Endurance Run, as this is the final run in the series.



(Presidents Message Continued from page 2)

Amateur radio operators provide support at net control, start line, aid stations throughout the course, and finish line. Radio operators at each of the thirteen aid station keep track of the runner's arrival and departure time and relay this information to net control. Net control utilizes this information to keep track of and account for each of the runners on the 100 mile mountain course. Amateur radio provides a key role in the safety of the runners in the mountains since there is no other communications available.

Here are some key reasons why it is important to participate in public service events:

1. Helping with a public service provides the amateur an opportunity to operate his/her equipment under conditions that simulate operating characteristics of an incident needing emergency communications.
2. The radio operator can gain experience in various capacities that one might encounter at an actual emergency incident.
3. It provides safety and logistics communications to worthy service organizations.
4. It demonstrates amateur radio to the general public.
5. It also provides a place to test out new equipment and or configurations of radios, antennas, and power systems.
6. And it is a lot of fun enjoying our hobby while helping in an event.

These three events are just some of the public service events that our club participates in each year. If you would like to help next year in a public service event, our club web site gives a brief description of the events supported (<http://www.barconline.org/node/404>). After the beginning of the new year, the 2011 Activities Sign-Up List should be up and running so you can sign up for any of the events.

73,
Cordell
KE7IK

As Reported in the ARRL Letter for September 30, 2010 This Week on the Radio

- **October 5** -- ARS Spartan Sprint
- **October 6** -- 432 MHz Fall Sprint (local time)
- **October 7** -- SARL 80 Meter QSO Party
- **October 8-10** -- YLRL DX/NA YL Anniversary Contest
- **October 9** -- FISTS Fall Sprint; EU Autumn Sprint (CW)
- **October 9-10** -- Arizona QSO Party; Pennsylvania QSO Party; CQ SA SSB Contest; Makrothen RTTY Contest; Oceania DX Contest (CW); Scandinavian Activity Contest (SSB); WAB HF Phone Contest
- **October 10** -- SKCC Weekend Sprint; North American Sprint (RTTY); 10-10 International 10-10 Day Sprint; UBA ON Contest (CW)
- **October 13** -- NAQCC Straight Key/Bug Sprint
- **October 13-14** -- CWops Mini-CWT Test

All dates, unless otherwise stated, are UTC. See the [ARRL Contest Branch page](#), the [ARRL Contest Update](#) and the [WA7BNM Contest Calendar](#) for more info. Looking for a Special Event station? Be sure to check out the [ARRL Special Events Station Web page](#).

For more information on contests go to <http://www.hornucopia.com/contestcal/weeklycont.php>
Or see "Operating" > "Contest Calendar" at <http://www.barconline.org>

UPCOMING ACTIVITIES

VE Licensing Test Session - 7 October, 7:00 PM

Swaptoberfest - 9 October, 8:00 AM
Cache County Fairgrounds

Jamboree on the Air - 16-17 October

RACES VHF Net - 21 October, 8:00 PM

Club Meeting - **20 November**
(Changed from normal schedule due to RACES conference)

RACES HF Net - 20 November, 8:00 AM 3920 KHz

Club Christmas Party - 2 December, 6:00 PM
At the Bluebird Restaurant

VE Licensing Test Session - 11 December

RACES VHF Net - 16 December, 8:00 PM

2011

RACES HF Net - 15 January 2011, 8:00 AM 3920 KHz

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.

Elections for 2011

Elections for next years club officers and board members will be at the November club meeting. If you can't make it to the club meeting, a proxy ballot will be sent out in the November newsletter and is required to be mailed in prior to the November club meeting .

The election committee is:

Richard Elwood, KE7GYD (r.d.elwood@comcast.net),
Garth Timmins, KLF7ATL (familytimmins@yahoo.com), and
Bob Wood, WA7MXZ (wa7mxz@arrl.net). Please contact
any of the election committee individuals if you are
interested in running for an office.

HAM PROFILE

Kevin Bosworth

By Jared Luther

Kevin Bosworth W7BOZ, started out in radio when CB was really big in the late 80's, early 90's. One night he counted all the people he knew on CB and came up with over 100 different CB handles. That was before cell phones were affordable. He got interested in ham radio because of the limitations and poor operating ethics of most CB operators. Kevin knew a few hams in the area: Dave Hancey KC7CXF, and his dad Ellis KC7CXE (sk). Kevin's friend, Ron Cooper W7UTA, asked if he wanted to study and get his license. They took the No-Code Tech test and passed. Kevin's first callsign was KC7HGN. He recently upgraded to General after taking a class and studying online. Now he has a vanity callsign: W7BOZ. (Just remember Kevin's last name - Bosworth). Kevin now has 4 other family members with their license, including his mom, Valerie Call KF7LQT.

Kevin enjoys everything about Amateur radio. Helping others, social events, meeting new and interesting people, building antenna's and radio equipment, computers and electronics. He always likes to try out new things and experiment with different ham equipment. His favorite thing right now is packet, APRS, satellite, and the other digital modes. He finds the digital modes more challenging, and likes to build his own equipment when he can. Right now Kevin is trying to save towards an HF radio. Most people are surprised when he tells them he is an amateur radio operator. "I guess I don't fit their profile of a ham." Kevin says "Or they don't know what its all about. But they all have questions and are very interested to learn more about what we do."



Kevin Bosworth was born in Logan, Utah in May 1974. He is the oldest of 6 kids and currently lives with his dad and 2 youngest brothers. He has worked as an Electronics Technician and doing apartment maintenance. He used to race motorcycles when he was younger. He also likes to play the guitar, snowmobiling, snowboarding, off-roading in trucks, and working on vehicles. In addition to amateur radio, Kevin loves computers, electronics, scanner radio, and working on his website when he can.

Kevin has had many fun times in amateur radio so far. From Field Day, bunny hunts, Net Control, tracking down a stuck transmitter, and helping others in time of need. He has also been helped by other hams. Kevin says he's a night owl and can usually be found on the air, late evening to early morning and looks forward to meeting more hams on air.

A Report of the Bridgerland Radio Rocket Recovery Team

Guy Hatch N7WAT

June 20, 2010



This was the second BARC activity in support of the [Experimental Sounding Rocket Association](#), headed by Dr. Paul Mueller. Last year's experience confirmed the need for radio tracking of the rockets. BARC again this year offered to field a team of amateur radio operators, with beacon transmitters and directional antennas, to assist with this effort. This year's radio team included Guy Hatch, N7WAT, Stan Wellard, W7SJW, Ron Felstead, KF7EQQ, and Ron's 11 year old grandson, Jacob Hansen, KF7KPR, who had just received his Technician license on June 10. We were joined by Ron's wife, Kathie, two more grandsons, 11 year old Bennett and 13 year old Tristan Felstead, and Guy's son, Daniel. Kevin Kesler, KE7AAF, joined us at Green River, but was not able to stay long enough to witness a launch. However, he did assemble and test his antenna and UHF equipment and was ready to go. Six university teams had initially signed up, but two dropped out just prior to the competition. This left BYU, Embry-Riddle Aeronautical University, from Daytona Beach, Florida, UCLA, and USC-Long Beach. UCLA was preparing two hybrid-fuel rockets and was planning to do a static firing of a motor identical to the one they built for their larger rocket prior to launching their larger rocket.

Our radio team preparations included purchase of two 70 cm Yagi antennas and building of three offset attenuator kits. Guy's VHF base station antenna mast was partially rebuilt to include a new omni-directional antenna with a weather vane flag mounted at the top. Two direction-finding practice sessions were held in the weeks prior to the activity. These were held at the Lundstrom Park in Logan, and were also attended by Tom Carlisle, KF7EBX and Rik Stallings, N7XZ, who were not able to go to Green River this year, and Kevin Kesler. We contacted John Mabey, Simplex Frequency Coordinator of the Utah VHF Society, to request frequencies for our activity. He assigned us 145.750 and 145.570 MHz simplex and 5 frequencies in the 70 cm band, separated by 50 KHz, starting at 439.000 MHz, going up, for our beacons. Rik Stallings programmed the two BARC transmitters and his two, which he graciously loaned to us.

Ron had recently purchased a mobile Yeasu HF/VHF transceiver, an LDG YT100 automatic antenna tuner, and an 80/40 meter NVIS antenna system. Guy brought his Kenwood TS-120S transceiver, an MFJ-949C antenna tuner, and a G5RV dipole, which he hoped to mount on the base station mast. We all had HT's, including Jacob. We also used two FRS radios for communications with launch control and some of the search teams.

We started from Logan about 9 a.m. on Wednesday, June 16, stopping to pick up Jacob, Tristan, and Bennett on the way. We arrived at the John Wesley Powell museum in Green River City at about 3 p.m., but had to wait until about 6 p.m. for Paul Mueller to lead us to the launch site. Wednesday's weather was very windy from about Price, south; constant at about 30 mph, with gusts to over 40. This wind apparently worked loose one of two folding tables strapped to Ron's roof rack somewhere between Price and Green River, and it blew away without being noticed. He had to find room for the remaining table inside his pickup shell, or it would also have blown away. On arrival at the launch site, we selected an area for camp/observation post/radio station and made hasty preparations for the night. Gratefully, the wind died down a bit after midnight and from the next morning on, we had



clear skies and only occasional breezes, warming to over 90 degrees by late afternoon. We were all very grateful for Ron's shade tent!

There were four launches and no explosions this year. BYU's rocket was ready first and launched into a slight breeze from the northeast. Unfortunately, higher elevation winds were going north. Their drogue parachute unintentionally pulled their main parachute out with it at apogee, approximately 10,000 feet up. Yes, it did drift -- over the bluff about a mile away. We had both radio and visual contact with it until it dropped behind the ridge, at

a bearing of 10 degrees, so we at least knew where to start the search. Since the BYU launch was just before 3 p.m. and two other rockets were ready to go, launch control decided to have all three launches go in quick succession, with all search teams released together after the third launch. Guy accompanied the BYU team, Ron and Jacob worked with the Embry-Riddle team, whose rocket also accidentally deployed its main parachute at apogee, along with its drogue parachute, and drifted about two miles further than the BYU rocket at a bearing of about 40 degrees. Unfortunately, Long Beach decided not to use a radio beacon. Very unfortunately, their main parachute also deployed at apogee into a rather brisk high altitude wind, carrying it well beyond binocular view before dropping below the ridge at a bearing of 34 degrees at last sighting, when it was still at least 10 degrees above the visual horizon and settling very slowly. The BYU rocket was located a few hundred feet beyond the ridge, about 1 mile from launch, and was quickly recovered. Ron and Jacob found an S1-S2 signal from the Embry-Riddle rocket beacon upon reaching the first ridge, then went over a second ridge to get an S4-S5 signal in the same direction. At each point, the ERAU search team looked back for directions from Ron, helping keep them on track in a very complex pattern of hills and gullies. They eventually found their rocket, nosecone buried like a solitary fence post in the ground just beyond the third main hill and about three miles from launch. On return, they all confirmed that without Ron and Jacob's guidance, they probably would not have found their rocket within the 2 hour limit. Unfortunately, without a radio beacon, and with a very long drift, the Long Beach rocket search was postponed until Friday morning. On departure, the search team stopped by our observation site to get a compass bearing. Due to the required distance from launch, observers were asked to stay so far away from the launch rail that they could not see the distant ridgeline to get a visual fix on the last sighting. We were considered part of the launch team and allowed to stay at our chosen site, which was about 600 feet from the launch rail and had an excellent view of the down-range. Friday morning we gave the Long Beach team our last visual bearing of 34 degrees, which lined up with the Green River City municipal airport about six miles away, and they set out at about 9 a.m. We received a radio report from launch control that LC had received a cell phone call from about 1 mile before the airport to report that the Long Beach team had found their rocket. They were fortunate to be able to carry their rocket only about a mile to a power line access road to get a ride back to the launch area, returning a little past noon and very tired and hot. They reported that they had spread out in a line of six searchers, each on a ridge-line, and keeping visual contact with the next on each side as they swept the terrain in the planned direction. They were very grateful for our direction and vowed to use a radio beacon next year. They all vowed to work on their parachute-release mechanisms, too!

After a prolonged period trying to fix a leak in their liquid nitrous oxide plumbing system, UCLA was ready to launch by about 3:30 p.m. Friday. About noon, Friday, we started to pack up camp, except for the shade tent and our tracking equipment, then waited, and waited. The launch was spectacular; well worth the wait. That little rocket took off straight up and disappeared from site in less than two seconds – and kept going! A few seconds later, someone called out that they saw a piece coming down to the North, without a parachute, and they followed it visually to impact. Moments later, someone else noticed the main parachute deploy at about 1500 feet, almost directly overhead. The slight breeze carried it toward Nine-Mile reservoir, where it dropped out of site, but with a clear radio signal indicating that the avionics package was intact and with the parachute-attached portion. Daniel, Jacob, and Tristan took off on a dead run, along with the UCLA recovery team. Jacob called in to report the rocket was hung up in a tree, then called in the altimeter reading when the team got it down. One would have thought he had been a ham for years; very professional and confident. The free-falling object turned out to be their motor – about 5 pounds of aluminum pipe. The tether strap to the motor was not frayed or broken, so the carabineer (not found) attaching it to the rest of the rocket probably broke, allowing the motor section to fall separately.

All in all, we did well! Three rockets with tracking beacons were found within the 2 hour window, one with definite benefit of the radio beacon and directional antenna to help find it. All of the launches exceeded 10,000 feet, with recovery of all electronics hardware and some great video taken by one of the rockets. Our visual observation of their launch helped Long Beach limit their search to the correct area and eventually find their rocket. A spare, fully charged car battery we brought for backup radio power was loaned to launch control for the UCLA launch when the launch rail battery went dead. There were no injuries and great learning experiences were had by all. Tristan and Bennett will probably work toward getting their Technician licenses and their own HT's by next year. Ron will be working HF on his new system. We will have to call this one a success.

Montpelier Net Control



Jackson Net - LOTOJA

The computers, radios, and cell phone technology, used for LOTOJA net control. Not to mention the binder full of maps, contacts, and rider contact information. It takes it all to be on top of this event.

Neutral Wheel Support



It takes a big crew to track all the wheels checked in by riders. In this picture, Bonnie and Paul Hoth, Dale Cox, Rosario and Roger Ellis prepare to collect wheels from Neutral Support vehicles to give back to cyclists.



APRS

Ted McArthur, AC7II monitors the APRS map of LOTOJA Neutral Support Vehicles. Small tracking devices in the vehicles radio their location every 5 - 10 mins. That information is sent to the Internet and displayed on a map for all Net Control stations to see.



LOTOJA 2010 Finish line in Teton Village.

Fans await the first cyclists, which will arrive within 20 minutes. LOTOJA is the longest USCF sanctioned bicycle race at 206 miles. Logan Utah to Jackson Wyoming.

Registered Members of the BARC Club

<u>First Name</u>	<u>Last Name</u>	<u>Call Sign</u>
David	Allen	KB7RAY
Harry	Ames	KG7RC
Jacob & Anna, Isaac, Ethan, Ester	Anawalt	KD7YKP/KE7CMJ
Michael &Barabra, Tyler Perkins	Applebaum	KE7NZA,KE7TSG KF7AMK
David	Baker	KF7ILN
Norman R	Barber	KF7GSF
Terry	Barnett	AD7IG
Ronald &Colleen	Blanke	KF7BPC / KF7BPB
Daniel A.	Boston	KF7GSB
Kevin	Bosworth	W7BOZ
Keith	Bradford	KF7ILI
Cory	Brinck	KF7GSI
Valerie	Call	KF7LQT
Jeanette	Campbell	KF7GSR
Thomas	Carlisle	KF7EBX
Gary	Carroll	K7ZAD
Brent	Carruth	AD7VF
Keith	Christensen	N7QAT
Scott	Corbridge	KC7CVB
Dale	Cox	KB7UPW
Neil	Dabb	KC7GCL
Craig	Dart	KF7ILK
Spencer & Beryl	Dattage	KE7TAS / KE7TRS
Rick	Eckart	KF7GMI
Shon & Roya, James, Jared, Seth	Edwards	K6QT/N0RME N1JSE/N2JAE/N0SRE
Roger	Ellis	AE7HB
Richard & Peggy	Elwood	KE7GYD / KF7BGU
Bob & Brandy	Ensign	W7SWW / K7BHE
D.Bruce & Allen	Erickson	KB7UOW / KC7QDT
David & Jessica	Fausett	KF7ELV / KF7ELW
Erich	Felger	KF7KUG
Ronald L.	Felsted	KF7EQQ
Gail R	Floyd	KF7GSN
David	Fornefeld	KC7UYJ
Dave	Fullmer	N7RRZ
Carolyn	Fullmer	KF7GSO
Quentin C	Gardner	N9QG
Wally	Gibbons	WB7ASQ
Mark M	Glade	KF7ILO
Michael	Gordon	WB7NTU
Tyler	Griffiths	N7UWX
Loren T.	Grover	KF7GSC
Kelly & Lucille	Hadfield	KE7QHW / KE7QBQ
Kim	Hall	KE4KSB
Paul & Linda	Hansen	W07N / N7NIS
Steve & Cheri	Harris	KZ3SAH / KZ3CLH
Deidra & Chris	Hartwell	KF7GSG / KF7GSH
Guy	Hatch	KE7WAT
David J	Hendricks	KF7GST
Cline	Hendrickson	K7KE
Michael	Hinds	KF7KUK
Mel	Hollingsworth	KC7RFQ
Dallas L.	Holmes	KF7GSD

<u>First Name</u>	<u>Last Name</u>	<u>Call Sign</u>
Paul & Bonnie	Hoth	N1IM / KC7DGP
Robert	Houghton	KF7LQS
Scott	Howard	
John	Howell	KF7FVA
Benjamin	Hume	KF7ILL
Bob	Humpherys	KD7BHB
Boyd	Humphreys	W7MOY
Bart	Jensen	KF7KUC
Chad	Jeppson	KF7GSV
Keven	Kendall	KF7ENF
Kevin	Kesler	KE7AAF
Robyn	Kesler	KE7GYI
Kyle	Kesler	KE7DWO
Wallace	Kohler	N7YTL
Wm. Kent & Shirley	Larsen	AD7HK / AD7HL
Fred	Larsen	KB7ZOU
Cherie	Larsen	KF7KUL
Dani	Larsen	KF7KUE
Shane L.	Larson	KF7WOZ
Greg	Larson	KF7GSK
Aaron	Larson	KF7GSJ
Ryan	Ledesma	KF7KUJ
Russell	Leikis	KE7VFI
Ray	Leonard	KF7LQW
Brian	Llewellyn	KI6ICC
Jim & Beanie	Lofthouse	KO7A / KJ7LQ
Jared & Jennifer	Luther	K7LRX KE7WAJ
David & Karen	Luthy	KF7ZZ / KC7CVJ
Ken	Lyon	KD7BGZ
Joshua	Mabey	KF7GSU
James (Clair)	Mattson	KE7ZCB
Ted	McAuthur	AC7II
Kurt	Meyer	K7CKY
Stanley R.	Miller	KE7JED
Max	Mumford	KA7BYU
Steve	Murthy	KE7WAQ
Bill	Neville	WA7KMF
Brian D.	O'Quinn	AE7EI
Cindy	Obrien	KI6WYB
Jeremy	Ollis	AE7FO
Roger	Olson	KB7KWQ
Dennis & Edna	Peck	KC7YVO / KD7ARW
Kendall	Petersen	KB7YFE
James C	Peterson	KE7VRG
J Myles	Powell	KF7IWE
Philip	Rasmussen	N7JFG
Linda	Rasmussen	KE7QBR
Dustin	Rawlings	KF7KUF
Wayne	Reese	KC7DKP
Kevin	Reeve	N7RXE
Janet	Reeve	KC7GCK
Austin	Reeve	KE7OAU
Gary & Marcia	Roberts	AG1T / KD7OJC
Darrell & Lynn	Robison	KD7BWY / KE7LZN
Carl	Ruediger	

(Continued on page 10)

Members of the BARC Club

First Name	Last Name	Call Sign
Robert	Schmidt	KF7GSP
David J	Scholes	KF7ILH
Kylee	Sealy	AE7IA
Gene&Deanna	Sexton	K0GKC
Janiece K.	Sloan	KF7GSQ
Cordell	Smart	KE7IK
Russell	Smart	KD7WRA
Jeffery	Snow	AD7HG
Robert	Spall	KF7ILM
Dean & Tammy	Stevens	N7WDY / N7YTO
James M	Stosich	KF7ILJ
Don & Daniel	Summit	KE7TAO/ KE7TAP
Paul	Sutton	KF7KUH
Keith	Thompson	AC7ZJ
Theo W	Thomson	K7TWT
Garth	Timmins	KE7ATL
Rodney	Tomkinson	
David	Tribett	KF7LQX
Brian	Ulrich	N7QAR
Stan & Irma	Wellard	W7SJW / KB7ZON
Jennifer	Whelan	KF7LQU
Peter	Whelan	KF7LQV
A. Brent	White	AE7FP
Richard	Wilkinson	KC7HYN
Connie	Williams	KF7GSM
Larry	Winborg	KF7GSE
Jessica	Wing	KF7KUD
Bob & Valarie	Wood	WA7MXZ / N7NJV

The ARES E-Letter for September 8, 2010 ARES 75th Anniversary Updates

ARES® is celebrating its 75th anniversary from September through December 2010. ARRL's ARES program has provided emergency communications for agencies such as the American Red Cross, Salvation Army, countless Emergency Operations Centers and others in the worst of times. In events from ice storms to Hurricane Katrina, when normal communications systems were down or overloaded, the Amateur Radio operators of the ARES programs responded to requests for communications aid.

Over the years the equipment has changed, but the decentralized communications nets that ARES can create to blanket regions without the need for other infrastructure remain critical in emergency planning. Recognition of this capability has led to renewed formal agreements with DHS, FEMA, NOAA and other federal agencies. With over 20,000 of the country's 680,000+ Amateur Radio operators involved in ARES--all of them truly "amateur" and providing their time, services, knowledge and equipment totally uncompensated--they are more than worthy of recognition for their 75 years of community services in the worst of times.

You can find more information about ARES at: <http://www.arrl.org/public-service>

Information about the anniversary is at: <http://www.arrl.org/ares-anniversary>

Click [here](#) for more information on celebration plans and resources. -- Allen Pitts, W1AGP, ARRL Public Relations Manager

Swaptoberfest 2010 Swap Meet

Saturday October 9th, 2010

Setup at 7:00 AM – Deals start at 8:00 AM

Cache County Fairgrounds Pavilion

450 South 500 West-- Logan , Ut

Swap Tables: \$10.00 at the door

Admission FREE

\$8.00 Online w/ PayPal www.Barconline.org

Door Prize Raffle Tickets \$5.00 Ea. @ the door

Need not be present to win!

Talk In Repeaters

Northern Utah Mt. Logan 146.72 PL 103.5 minus

147.20 PL 103.5 plus

Wasatch Front Promontory 147.26 PL 103.5 plus

IRLP 3381

D-STARNU7TS-B

www.nu7ts.com

449.575 MHz -5.00 MHz

The ARRL Letter for September 16, 2010

Regulatory: New York Judge Declares Amateur Radio Is Not a Cell Phone



In many states and localities, it is illegal to talk on a cell phone (without a hands-free device) while behind the wheel -- doing so can result in a ticket and possibly a large fine. But on May 30, 2010, when a New York ham was talking on his mobile rig, he didn't think he was doing anything wrong. Except that the officer who pulled him over and cited him with a \$100 fine didn't quite see it that way.

Steve Bozak, WB2IQU, of Clifton Park, told the ARRL that when he was pulled over while driving to Troy -- about 16 miles away -- he assured the officer that he was not speaking on a cell phone, but on his

handheld transceiver. But according to Bozak, the officer said "it was all the same to him." So Bozak decided to fight the ticket in court.

"Honestly, it's not the fine or the ticket, but that all the other hams who use mobile radios have to hide the fact we are mobile in Troy," he told the ARRL just days after he was cited. "I will do my best to settle this politely and correctly, for all of the ham community. So I will follow the course and have my day in court, to 'tell it to the judge.' This matter affects 38,000 hams in New York State." Read more [here](#).



The ARRL Letter for September 23, 2010

PBS Show Features History Mystery with an Amateur Radio Twist

In the PBS show [History Detectives](#), a group of researchers helps people to seek answers to various historical questions they have, usually centering around a family heirloom, an old house or other historic object or structure. So when Chuck Roedel, WA2MXR, of Beverly Hills, Florida, had what he thought may be an artifact from the turning point in the US space race against Soviet Russia, he called on the detectives to help him sort it all out. The show featured Roedel and his history mystery back in June, and his [segment](#) was just made available to the public on the [History Detectives Web site](#).



Chuck Roedel, WA2MXR, of Beverly Hills, Florida, contacted the PBS show History Detectives to discover more about this 4 inch square of material that could be a part of the US space race against Soviet Russia. [Screenshot from History Detectives]

Back in October 1978, Roedel -- an ARRL member -- met Dwight "Doc" Saxmann, W3HNT (now a Silent Key), of Baltimore, Maryland, on the air. In one of their QSOs, Saxmann told Roedel that in the early 1960s, he had worked on *Echo 2*, an early NASA communications satellite made out of an experimental material. *Echo 2* -- a 135 feet diameter metalized PET film balloon -- was a balloon satellite that functioned as a reflector, not a transmitter, so that after it was placed in a low Earth orbit (LEO), a signal would be relayed to it, reflected or bounced off of its surface and then returned to Earth. Read more [here](#).

The ARRL Letter for September 30, 2010

Amateur Radio in Space: ARISSat-1 in Satellite Final Preparation

Having successfully completed vibration testing this week, the [ARISSat-1/RadioSkaf V](#) satellite will soon be on its way to Russia for final preparation and launch to the International Space Station (ISS).

In Russia, the Kursk experiment will be added and the satellite will undergo additional testing. A new Russian Orlan suit battery will be shipped separately to the ISS to be installed into the satellite. ARISSat-1 is scheduled to be sent to the ISS aboard Russian [Progress](#) vehicle 41P in January 2011 and deployed during EVA (spacewalk) R-28 in February 2011.

ARISSat-1/RadioSkaf V will have simultaneous 2 meter FM, CW, BPSK and transponder transmissions. These multiple transmissions are created by a new software-defined transponder (SDX) board. The FM transmissions will cycle between a voice ID, select telemetry values and 24 international greeting messages in 15 languages, as well as live SSTV images. The CW transmissions will be call sign ID, select telemetry and call signs of people actively involved with the ARISS program. The BPSK transmissions will feature a new 1kBPSK protocol developed by Phil Karn, KA9Q, to be readable in low signal level conditions. The BPSK data will alternate between telemetry and Kursk experiment data. Free groundstation soundcard demodulator and display software will be available before launch for multiple platforms. There also is a 16 kHz wide Mode U/V (UHF uplink/VHF downlink) transponder between the BPSK and FM signals. Read more [here](#).



SuitSat-1 was launched into space from the ISS in February 2006. [NASA Photo]

The ARRL Letter for September 30, 2010

ARDF Update: Three Medals for Team USA at the 2010 ARDF World Championships

By ARRL ARDF Coordinator Joe Moell, K0OV



Team USA members and officials are relaxing and sightseeing on the way to the Model Event on September 14. Back row: Dick Arnett, WB4SUV; Harley Leach, K17XF; Karla Leach, KC7BLA; George Neal, KF6YKN; Alla Mezhevaya; Vadim Afonkin, KB1RLI; Jerry Boyd, WB8WFK; Bob Cooley, KF6VSE; Dennis Schwendtner, WB6OBB, and Jay Hennigan, WB6RDV. Front row: Ruth Bromer, WB4QZG; Lori Huberman; Marvin Johnston, KE6HT, and Kuon Hunt, KB7WRG. Competitors not pictured: Dale Hunt, WB6BYU; Jen Harker, W5JEN, and Ken Harker, WB5R. [Marvin Johnston, KE6HTS, Photo]

The 15th ARDF World Championships have just ended and Team USA members stood proudly on the podium once again.

ARDF Team USA has just returned from Croatia, the site of this year's World Championships of Amateur Radio Direction Finding ([ARDF](#)). Three team members have new medals for their collections, the most medals ever earned in the World Championships by the USA.

On September 15, the first of two competition days, Karla Leach, KC7BLA, and Ruth Bromer, WB4QZG, captured second place among national teams in the category for women over age 60 (W60) in the 80 meter band competition. Then in a rainstorm on September 17, George Neal, KF6YKN, won the individual bronze medal in the category for men of ages 50-59 (M50), also on the 80 meter band.

ARDF -- also called foxtailing and radio-orienteeing -- requires map-and-compass proficiency, as well as skill in using direction-finding gear. It is done entirely on foot. Each day, the competitors set forth into a 1700 acre woods containing five "fox" transmitters in unknown locations. The foxes for each band are all on the same frequency and each one comes on the air for 60 seconds at a time in rotating sequence. Only men and women in the prime age category are required to look for all five; those in the other age/gender categories search for fewer, in accordance with International Amateur Radio Union ([IARU](#)) rules.

Karla and Ruth were required to seek numbers 1, 2 and 3. George had to find numbers 1, 3, 4 and 5. After punching in at as many of those transmitters as possible, they had to make their way to a finish point that was marked on the map. It also had a continuous homing beacon on another frequency that they could track with RDF.

The shortest point-to-point route for start to each required fox and then to the finish was 2.25 miles (3.64 km) for W60, and 2.45 miles (3.94 km) for M50, but such a direct route was impossible due to the terrain; their actual distances traveled were closer to four miles. Karla and Ruth found two of their required transmitters in 1:26:09 and 1:50:43, respectively. The rules require team members to work independently and they are started at separate times. Individual results are combined to determine team scores. George found all four of his required transmitters in 0:54:57. This was just 97 seconds more than the M50 gold medalist's time. Read more [here](#).

Questions for General Class License

1. (G1A07) Which of the following frequencies is within the General class portion of the 75 meter phone band?
 - A. 1875 kHz
 - B. 3750 kHz
 - C. 3900 kHz
 - D. 4005 kHz
2. (G2A01) Which sideband is most commonly used for phone communications on the bands above 20 meters?
 - A. Upper Sideband
 - B. Lower Sideband
 - C. Vestigial Sideband
 - D. Double Sideband
3. (G3A04) What is measured by the solar flux index?
 - A. The density of the sun's magnetic field
 - B. The radio energy emitted by the sun
 - C. The number of sunspots on the side of the sun facing the Earth
 - D. A measure of the tilt of the Earth's ionosphere on the side toward the sun
4. (G4A04) Which of the following is an advantage of a receiver IF filter created with a DSP as compared to an analog filter?
 - A. A wide range of filter bandwidths and shapes can be created
 - B. Fewer digital components are required
 - C. Mixing products are greatly reduced
 - D. The DSP filter is much more effective at VHF frequencies
5. (G5A03) Which of the following causes opposition to the flow of alternating current in an inductor?
 - A. Conductance
 - B. Reluctance
 - C. Admittance
 - D. Reactance
6. (G6A08) How should two solenoid inductors be placed so as to minimize their mutual inductance?
 - A. In line with their winding axis
 - B. With their winding axes parallel to each other
 - C. With their winding axes at right angles to each another
 - D. Within the same shielded enclosure
7. (G7A07) Which circuit is used to combine signals from the carrier oscillator and speech amplifier and send the result to the filter in a typical single-sideband phone transmitter?
 - A. Mixer
 - B. Detector
 - C. IF amplifier
 - D. Balanced modulator
8. (G8B06) What is the total bandwidth of an FM-phone transmission having a 5 kHz
 - A. 3 kHz
 - B. 5 kHz
 - C. 8 kHz
 - D. 16 kHz
9. (G9A03) What is the characteristic impedance of flat ribbon TV type twin lead?
 - A. 50 ohms
 - B. 75 ohms
 - C. 100 ohms
 - D. 300 ohms
10. (G0A09) What type of instrument can be used to accurately measure an RF field?
 - A. A receiver with an S meter
 - B. A calibrated field-strength meter with a calibrated antenna
 - C. A betascope with a dummy antenna calibrated at 50 ohms
 - D. An oscilloscope with a high-stability crystal marker generator

(For answers to test questions see page 14)



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Answers to questions on page 13: 1-C, 2-A, 3-B, 4-A, 5-D, 6-C, 7-D, 8-D, 9-D, 10-B