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December 2013

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**QST reviews:**

**42 | Icom ID-51A  
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**Inside:**

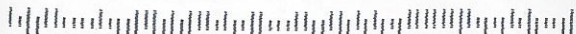
**30 | Discover Which  
Modes Offer the Most  
Mileage**

**33 | Replace Bulbs With  
LEDs in Vintage Radios**

**35 | Try a Dual Band HF  
Ground Plane Antenna**

**72 | 2013 Field Day  
— The Results Are In**

# Season's Greetings



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Official Journal of  
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## Colorado Flooding and Ham Radio: Public Service at its Finest

**A father calls for help, and Amateur Radio relays the answer.**

### Sean Kutzko, KX9X

ARRL Media & Public Relations Manager

Nobody ever expects to be involved in an actual emergency situation. But we think about it, we talk about such a scenario with our friends, and some even train for such occasions. When a very real emergency happened in Colorado — the devastating flooding during September — Amateur Radio stepped up during the first critical days in a way that many non-hams say made a huge difference in the initial response and subsequent recovery efforts. In the middle of the storm, ham radio provided a father in Nebraska peace of mind that no other source of information did.

Between September 9 and 13, almost 15 inches of rain fell in rugged northern Colorado. This was double the state's previous record for a single storm, which was set in May 1969. The mountains and streams simply couldn't manage that much water in that short of a time frame; gentle creeks became raging rivers, expanding far beyond their banks. Seventeen Colorado counties were affected, with the flood covering nearly 4500 square miles, or an area roughly the size of Connecticut. It was confirmed that six lives were lost and over 18,000 homes were damaged or destroyed. Bridges and roads were wiped out, and entire communities lost all utilities and communications, cutting them off from the rest of the world.

When the magnitude of the event became apparent, state and county disaster plans went into effect. Part of that plan was a group of Amateur Radio operators throughout Boulder and Larimer and counties who are part of the Colorado Amateur Radio Emergency Service, or ARES. These ham radio operators are ordinary people from the local communities who have been federally licensed to use the ham frequencies. They have undergone training to respond to such emergencies, including routinely practicing message handling under duress.

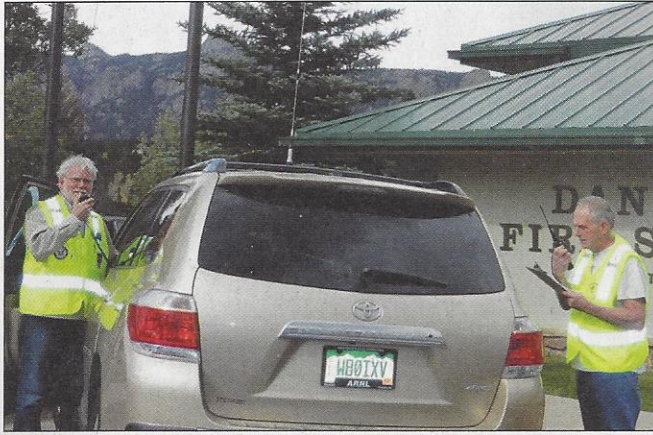
### Radio Amateurs Called for Communication Assistance

Several dozen amateurs participated in the emergency response throughout the 17 affected counties and provided critical information and support to federal, state, and county served agencies (including the Federal Emergency Management Agency, the Red Cross, and the Office of Emergency Management for Boulder and Larimer counties). One request for as-

Above: Estes Park was just one of several communities flooded out; they received as much as 15 inches of rain over a period of four days. Communities throughout the flood area will be cleaning up for months. [Kris Hazleton, photo. Courtesy Estes Park News, Inc, used with permission.]

sistance, however, stood out for Doug Tabor, N6UA, and David O'Farrell, WBØIXV. Both men live in Estes Park, a mountain community of about 6000, located about 75 miles north-northwest of Denver at the border of Rocky Mountain National Park. Tabor is a pilot and IT consultant; O'Farrell is retired. Both became interested in Amateur Radio as young men in the mid-1960s.

As members of both the Colorado ARES team and the Estes Valley Amateur Radio Club, the two men were asked to set up at the Estes Park Fire Station on Thursday, September 12. Tabor said, "US 34 was washed out around noon, and with it went the fiber optic cable that provided cell phone and landline service and almost all of the Internet service to the Estes Park valley." While the low-lying downtown area was flooded, large portions of Estes Park still had electricity. They found out later that the other two routes out of town — US 36 and State Highway 7 — were also washed out. They were sent to the Estes Park Fire Department on Thursday evening, to help handle communications between the Red Cross shelters in the area and to keep the Larimer County Office of Emergency Management informed on the Estes Valley's status. They spent the better part of four days there, relaying messages and information from their cars in the Estes Park Fire Department parking lot using radios on



Dave O'Farrell, WB0IXV (left) and Doug Tabor, N6UA (right), spent the better part of the first four days of the flooding in the parking lot of the Estes Park (CO) Fire Department handling health and welfare traffic, including the call from Ron Young, KD0HCH, about his daughter who was stranded in nearby Allenspark. [Dave O'Farrell, WB0IXV, Photo]



Loy Young, KD0IHF, of Hastings, Nebraska and her husband Ron, KD0HCH, are relieved to find out their daughter is safe. Ron made the call to Estes Park via the Internet Radio Linking Protocol (IRLP) to get information about his stranded daughter. [Ron Young, KD0HCH, photo]

VHF and UHF frequencies designed for local area communications. Tabor and O'Farrell took turns — one manning the radios, with the other taking notes, to ensure accurate reporting and gathering of information. Sometimes they would both be on a radio at the same time. One would retrieve regular status reports from the Red Cross shelters and the Estes Park Medical Center; the other would be talking with hams stationed throughout the Estes Park valley, getting information about the condition of roads, diminishing supplies of food and fresh water, or the needs of evacuees at Red Cross shelters throughout the area. Sometimes one of them would drive to the Red Cross shelter or the medical center to take care of a problem, and then head back to the fire department. Other members of the Estes Valley Amateur Radio Club provided communications at locations throughout the Valley.

They had two different radios with antennas on the roofs of their cars, which connected them to other hams throughout the affected area via several Amateur Radio transmitter receiver combinations known as "repeaters" all throughout Larimer and Boulder counties. Repeaters allow signals from lower-powered transmitters, like the ones in Tabor and O'Farrell's cars, to be retransmitted with higher power and a better antenna, allowing Tabor and O'Farrell's signals to cover a much wider area than they could on their own in the mountainous terrain. "Things quieted down at night, and we were both fortunate to be able to sleep in our own beds," Tabor said. "The last thing you want to do during a flood event is to be wandering around at night and become a victim." They would go back to the Fire Department each morning and stay until 10 or 11 at night, relaying whatever information was needed to provide assistance.

### Concern Arises For Woman Isolated by Flooding

475 miles away in Hastings, Nebraska, Thursday, September 12 was the beginning of a very long three days for Ron Young, KD0HCH.

Young and his wife Loy, KD0IHF, have two daughters living in Estes Park. He is a member of the Estes Valley Amateur Radio Club and knows some of the members due to his regular visits to see his daughters. While his older daughter was safely in Estes Park when the flooding hit on Thursday morning, his younger daughter made it to Allenspark, 18 miles to the south, where she worked as an administrative assistant. She had a condition that required medication at very specific times. Young said, "She called me on Thursday and told me it had been raining really hard since Wednesday, and she drove through a washed-out road just to make it to work." That was the last he heard from her. "We were concerned, but not too concerned. But when we started getting reports from friends before communication was lost, we knew she was stranded at work and was low on medicine. We knew there could be a problem." Young didn't know how much medicine she had with her at work. Without the medication, Young's daughter gets tired and lethargic very quickly; going without medication for a long time could be life-threatening to her.

There was no word from Young's daughter on Friday. "I woke up about three AM on Saturday, and that's when it all hit me," Young recalled. "Not having heard from her in three days, all I had to go on was my imagination, guessing what her condition could be. She could be on a cot at work, and the others with her would think she's just sleeping in, but actually, she's dying. At three AM, I got really scared."

### Information Brings Comfort in Times of Crisis

Saturday morning in Estes Park saw slight improvement. A very spotty Internet connection was established to the repeater site in Estes Park. That allowed amateurs to use a protocol known as the Internet Radio Linking Protocol (IRLP), which provides dedicated voice communication links between amateur repeater systems via the Internet. It took several attempts but, using his iPad, Ron Young in Nebraska was finally able to make contact with Doug Tabor on the Estes Park repeater via IRLP around 9:30 AM Saturday and explain his daughter's situation.

"Ron told us his daughter was stranded in Allenspark at work and hadn't had her medication in three days," O'Farrell said. Tabor asked Young to stand by and then made a call for assistance via an Amateur Radio repeater in Allenspark; Bob McDonald, KD0SCC, a resident of Allenspark and newly licensed amateur, answered.

"I was monitoring our local repeater and heard [Doug Tabor] trying to raise the Allenspark Fire Department with no response," McDonald said. "After a second call by Doug, I broke in and asked if he needed to get in touch with the Fire Department. When he told me what he needed and because the phones were not working, I offered to drive over to the station and get him in touch with the dispatcher. The Fire Station is less than two miles from my home, so within a few minutes I was at the station and initiated a third party link between Doug and the Allenspark Fire Department dispatcher." Paramedics were dispatched to find and retrieve Young's daughter.

"When I got hold of Doug, you don't know how good I felt," Young said. "It brought me to tears. There was no other way to get info. I heard him

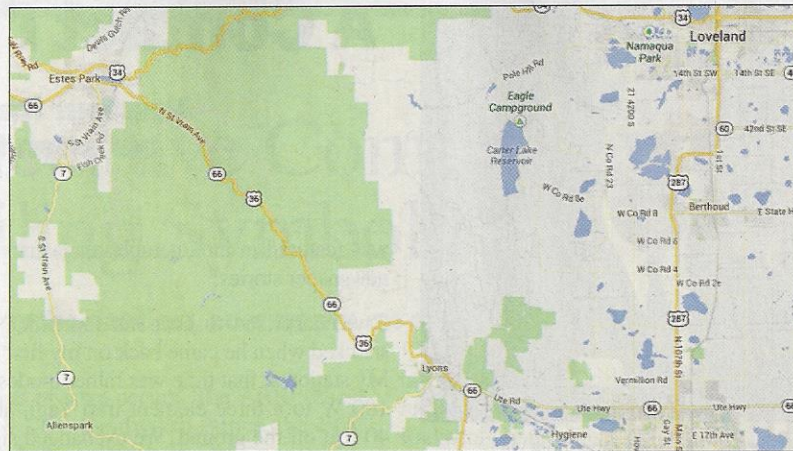
radio for assistance to Allenspark, and I just knew then that things were going to be okay.”

As it turned out, Young’s daughter had decided to take a chance on her own. By Saturday afternoon, her condition worsening and running low on food and potable water, she opted to get in a car with a couple of her coworkers and make an attempt to get out on their own. Firefighters at the Allenspark fire station told the women that State Highway 7 was believed to be passable, but if they tried to make the trip, they were doing so at their own risk.

The dispatched paramedics missed Young’s daughter by only a few minutes.

The women eventually made it safely to Estes Park. Young received word that his daughter was at the Estes Park Red Cross shelter, and was in good hands.

“Ron was very grateful and thankful,” Tabor said. He and O’Farrell continued relaying other messages and information about conditions in the Estes Valley until Sunday morning, when the major fiber optic line into Estes Park was repaired, restoring landline telephone and internet service. All in all, 155 man-hours were put into Amateur Radio emergency communications efforts in Estes Park by nine members



Estes Park is in Larimer county; Allenspark is 18 miles south of Estes Park, in Boulder county, approximately 75 miles north-northwest of Denver. [Map courtesy of Google Maps]

of the Estes Valley Amateur Radio Club from September 12 through 15. Damage assessment and rebuilding will continue for several months throughout the 17-county affected area.

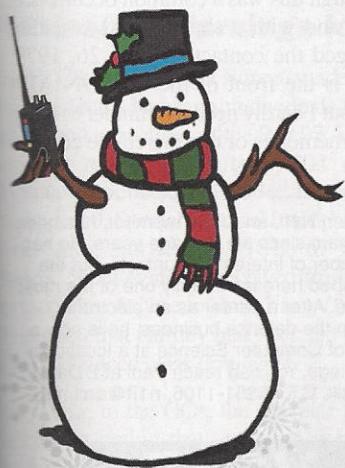
Young said his daughter is going to be okay, but it will take a couple months to get her medical condition stabilized again. He looks forward to returning to Estes Park to thank the men who, through Amateur Radio, gave him the peace of

mind he needed at a very difficult time.

“It was well run, boy,” Young said. “It was simple but it was effective.”

Sean Kutzko, KX9X, is the ARRL Media and Public Relations Manager. He has been licensed since 1982 and employed at the ARRL since 2007. He enjoys HF and VHF contesting, DX-ing, and backpack QRPing. He can be reached [kx9x@arri.org](mailto:kx9x@arri.org).

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