



# Cottonwood Heights

## Weekly Update for the Week of Oct. 2-8, 2016

### City Manager

1. Preparing for launch of new Citizen Dashboard, which I'm told works much better than the current one. It is scheduled to launch on Oct. 13.
2. After encountering a glitch in the CivicLive content management system, I was finally able to update the October newsletter content to the website. CivicLive is working to make our site faster.
3. November newsletter deadline is Tuesday, Oct. 11. Chief Watson has the public safety article, and I'm still waiting on other things. Tee Tyler submitted his article almost 2 months ago :)

### Community Development

1. The Back to Basic Boot Camp series started on Oct. 6 and will run for the next couple of weeks. If you're looking to start your own business, stop in and get some great information.
2. The department was given an award from APA for the city's bike and trail plan. Thanks to Mike Johnson who coordinated this project.
3. Trunk or Treat sponsored by the CHBA. It will be held on Oct 31 at 3-5pm in the City Hall parking lot.

### Administrative Services

1. Ann assisted John and Bryce with hosting the monthly South Salt Lake Area City Managers meeting with a lunch and discussion of development in the City by Community Development Director Brian Berndt.
2. The facility use policy has been set for a public hearing with the required study. The public hearing will take place at the Oct. 25 Council business meeting.
3. Congratulations to our Cottonwood Heights Amateur Radio Club for their spotlight article in CQ Magazine, a national magazine for amateur radio users. See the complete article below.

### Police

1. Police placing logos on completed SWAT Van...we are ready to deploy
2. Officers dispatched to a home in the 6700 S block of 2300 E and found a father doing CPR on his 22 year old son who was in full arrest on an opioid overdose. Officers used Narcan to save the life...he began breathing on his own within a minute as UFA arrived.

### Engineering

1. Working on easement and exhibit for an agreement between Cottonwood Heights and property owner for area between City Hall retaining wall and neighbor fence.

2. Meeting with Public Works discussing NPDES requirements based on Jordan Valley Permit and our future Public Works Yard.
3. The Mountain Accord technical committee met yesterday to review the transportation options that they would like to evaluate in more detail:
  - a. Cog Rail (with and without a tunnel)
  - b. Bus (BRT, Enhanced Bus and Bus Only, close canyon to cars, all with and without the tunnel)
  - c. Gondola (with and without the tunnel)
  - d. Widen the existing Highway

## Pictures



*Figure 1 - Congratulations to Mike Johnson being recognized for his efforts preparing the Cottonwood Heights Bicycle and Trails Master Plan by the Utah Chapter of the American Planning Association*



Figure 2 - The logo for the SWAT van

## Emergency Communications Special

Utah's Cottonwood Heights Amateur Radio Club plays an integral role in the city's emergency response plan. Here's a look at what the club does and how it does it.

# Voice, Data, Video: Club Uses What's Needed in Emergency Response

BY CARLOS CARDON\*, W7QL

The Cottonwood Heights Amateur Radio Club (CHARC) was organized in 2014 with the specific mission of providing emergency communications services to the city of Cottonwood Heights, Utah. The group has close working relationships with the city, the CERT (Community Emergency Response Team) organization, and local churches to supply timely voice, data, and video information to emergency response officials when normal communications facilities are not available (*Photo A*).

The city operates a sophisticated Geographical Information System (GIS), with a database of all residences, which is used to display the status of each home in the event of a major disaster. This information is gathered by block captains (*Photo B*), who pass it to CHARC emergency communications specialists (*Photo C*). They enter it into spreadsheets, which are converted to data files and sent by digital radio, either packet or D-STAR data, to an Emergency Response Center where it is input to the GIS system. At this location, the status of each home is displayed on a large screen for the Incident Command Team (*Photo D*), which may then make informed decisions about deployment of first responders.

CHARC employs a variety of amateur radio technologies to accomplish its mission, including VHF/UHF FM voice, packet, D-STAR data enabled by Dan Smith's DRATS software, BBHN (Broadband-Hamnet) Mesh with TeamTalk video and voice <[www.broadband-hamnet.org](http://www.broadband-hamnet.org)>, and streaming IP video. D-STAR high-speed data on the 23-centimeter band has also proven very useful in moving larger data files, including compressed still images of disaster sites.

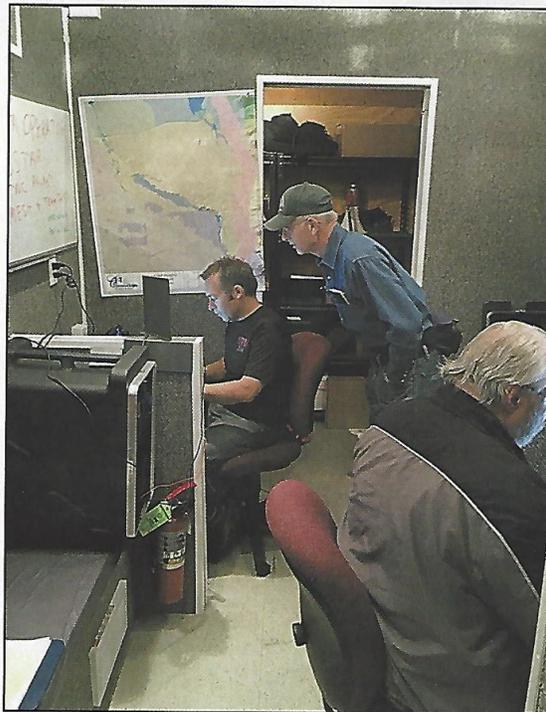
In addition to continually honing skills and processes, the club also evaluates new technologies such as portable solar panels, quadcopter streaming video, higher speed data transmission and low cost home-built Raspberry Pi devices for possible use in our emergency communications tools arsenal.

### Two Types of Events

In order to provide effective emergency response, the CHARC group has developed, and trains with, a set of operating procedures that describe the equipment and processes to be employed when the group is activated. The procedures have been developed around two different emergency scenarios. One is a "localized event" such as a flood or fire,

which, as the name implies, is local in scope. The other, requiring an entirely different type of response, is the "major event," affecting the entire city, which could entail working in conjunction with the Red Cross and FEMA.

In a localized event, we send small teams to critical sites (*Photo E*) to provide verbal reports and send compressed still images back to the Emergency Operations Center (the EOC, which can be at the permanent City Hall building, or in the city's Mobile Incident Command van).



*Photo A. CHARC operators (left to right) Randy Ellefson, KDØBAW; Dick Abbott, K7MZ; and Bart Van Allen, AA7VA. Randy and Dick are handling the D-STAR and packet data station, while Bart serves as net control for the 2015 earthquake drill. (Photos A-D courtesy Jeff Cardon Productions)*

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email: <[cdcardon@comcast.net](mailto:cdcardon@comcast.net)>

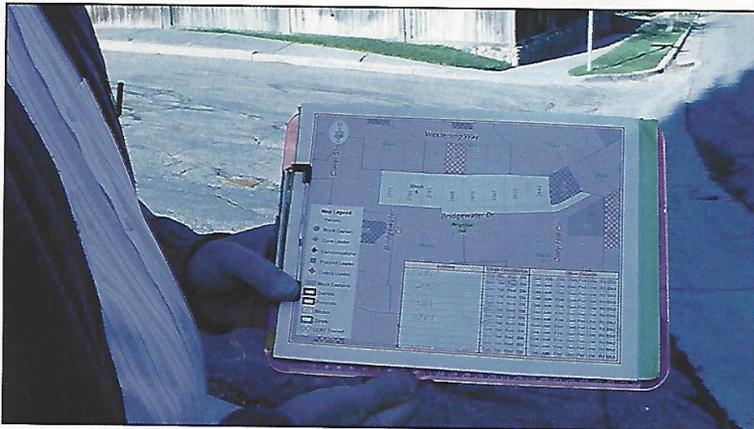


Photo B. Block captain checks status of neighbors in 2015 Great Utah Shakeout earthquake drill.

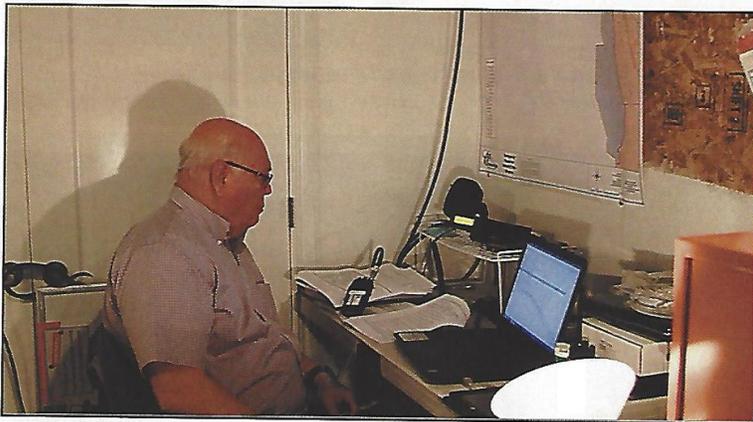


Photo C. Soren Sorenson, K7SKS, gathers status information on over a thousand homes in his district and forwards the data to the EOC via packet radio.



Photo D. Cottonwood Heights City Mayor Kelvin Cullimore examines GIS display of status of homes during the earthquake drill.

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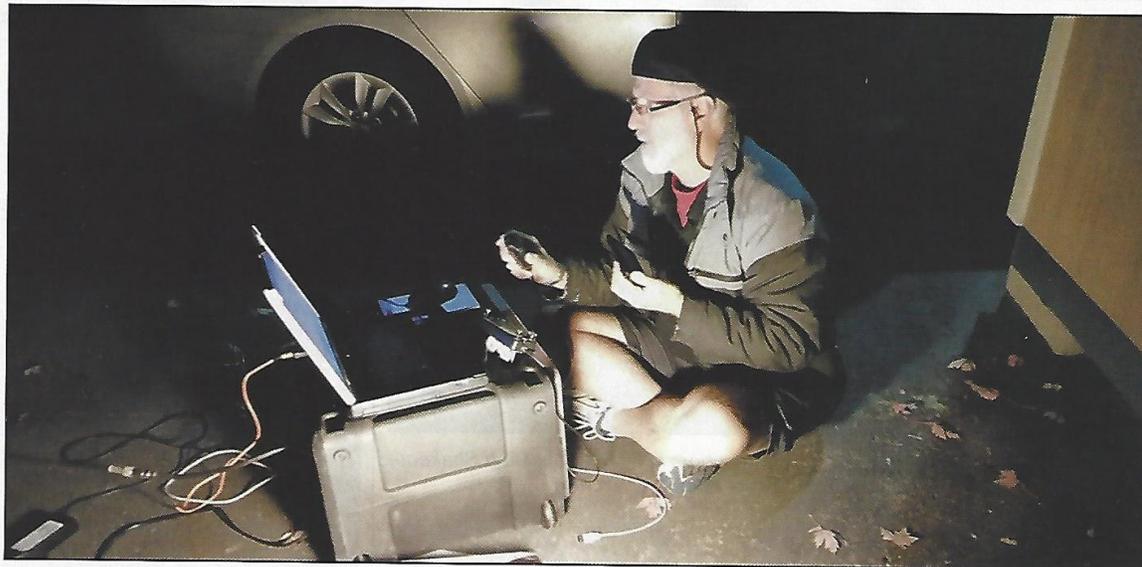


Photo E. Rod Rothbauer, KF7WQK, provides status reports to the EOC in this flood emergency drill. (Photos E-H by Carlos Cardon, W7QL)



Photo F. IP streaming video is sent to the mobile EOC during a recent drill by this Ubiquiti Nano system utilizing BBHN firmware.



Photo G. Another IP streaming video camera is in operation at the EOC, along with the EOC master control mesh node, a Ubiquiti Bullet with BBHN firmware.



# BUDDIPOLE



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The second scenario is a major event; the most likely of which in our area is an earthquake. We assume in this situation that the entire city is affected and that normal communications systems are

disrupted. All of our volunteers, the radio group working with CERT and the local churches, are trained to react immediately if this happens. Block Captains, responsible for 8-12 homes in their

neighborhood, check on the status of each family and provide this information to communications specialists in their area. They, in turn, relay the information by digital radio to the EOC (see above).

Following the initial phase of an earthquake, it may be necessary to set up mass shelters. In this situation, we use BBHN Mesh technology to provide local authorities with voice, data, and video coverage (*Photos F & G*) of a limited-area site. We train for such a situation by using public events, such as parades, races (*Photo H*), and celebrations to test the technology.

Multiple training drills are held each year to exercise and improve operator skills of equipment and procedures. Drills include participation in an annual state-wide "Great Utah Shakeout" and support of community events such as parades and athletic competitions.

CHARC has 25 members dedicated to providing life-saving information should a significant event in our city prevent the operation of normal communications facilities.

Videos showing CHARC participation in the Great Utah Shakeout for the past few years can be viewed at: <<http://bit.ly/2aM7YZM>> and <<http://bit.ly/2aUbK5c>>.

The club website is at: <<http://bit.ly/2axjB5S>>.



Photo H. Another example of IP streaming video, in this photo from a 2015 marathon in Cottonwood Heights, Utah.