UTAH COMMUNICATIONS AUTHORITY

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UCA NEWSLETTER 2025-002

Stakeholders,

Below is a snapshot of what we are working on related to the new system.

Escalation Team Visits w/PSAPs

- Console Audio Adjustments
- Console Maintenance

Recently, L3H sent an Escalation Team of engineers to Utah to review several aspects of our system settings. They provided many recommendations which we are currently implementing.

We are working with PSAPs to push new console audio settings to balance out the dispatch audio. Previously, we heard reports from field users that the dispatch audio repeatedly fluctuated from loud to low. As the PSAPs are working with the L3H engineers on this, we have asked them to test the settings with field users to make any additional adjustments necessary per PSAP.

We will establish a procedure to ensure that the consoles are maintained appropriately. The procedure will include updates pushed by UCA and the PSAPs regularly rebooting them.

Site Adjacency List Review

The site adjacency list programmed into the system guides the radio to roam between sites. In our legacy system, we had the option to add eight adjacent sites. In our new system, we can add sixteen sites, and so in most cases, we did so.

Another recommendation from the Escalation Team was to review our site adjacency list and pare down some of the lists. Excessive site adjacencies could cause an issue where the radio roams too aggressively or not aggressively enough. Keeping an efficient list enables the radio to make optimal site-to-site decisions, avoiding sites that are not directly adjacent and could be served by a closer site.

We have completed the review of 3 of the 4 regions, eliminating almost 100 sites from the different lists. Once the review is complete, we will make the adjustments.

Long-Term Patch Adjustments

The way the backend messaging within the P25 standard is related to patching is that the system continually sends messages to communicate patched talk groups to radio users on those patches. This can cause a substantial amount of activity on the system's backend, which can cause some system slowing. We see this when a patch is initiated, or a user leaves a patched talk group and then returns to a patched talk group.

There are many cases where PSAPs have long-term patches set up. Although this would not be considered a “best practice”. Patching is meant to be done in the case of a sudden, unplanned incident, where taking the time to assign a different talk group for coordination is not possible. One example would be a high-speed chase. Typically, a patch is a short-term solution for a specific situation.

That said, some PSAPs do have what we would refer to as “permanent patches” on our system. Those patches include at least one VHF resource being patched to a P25 resource, which is completely understandable and necessary.

L3H is working to mitigate the system load related to patches and plans to provide a software update to our system in late Q2, which will help eliminate this delay. Still, another recommendation from the Escalation Team and the Products Development team is to change the long-term patches from being created from the console to being created on the system's back end by reengineering the pathway plus and consolidated gateway.

We tested this with Garfield PSAP last week, and it was successful. We have contacted the remaining PSAPs where this is applicable and have begun working with them to transition these patches off the consoles. This will help the system run more efficiently.

Site Mitigation

- Combiner Re-tuning
- Legacy Antenna Adjustments
- External Interference
- Antenna Replacements/Re-Optimization

Over the past few months, we have periodically had a team of RF specialists in the town reviewing eight sites where we had identified known issues. The site reviews have resulted in multiple antennas being replaced due to damage. Other site repairs have been made, including replacing coax and jumpers and re-tuning combiners. Once the work has been completed on the sites, they have been optimized again.

The sites included:

- Grizzly Ridge
- Lake Town
- Teat Peak
- Barton's
- Castle Gate
- Lake Mountain
- BYU
- West Mountain

Additionally, we have spent considerable time tracking down external interference, which has almost always been a BDA in the area. We believe requiring Class A BDAs will reduce this issue.

We recently completed a review of every site's coverage compared to expectations. The P25 antennas currently in use provide a coverage footprint similar to the legacy system, but in many cases, the signal density is lower than before.

After this review, we have decided to replace 50 of the P25 antennas on the system with different P25 antennas that have a gain and down-tilt more similarly aligned to the legacy antennas. We expect these changes to provide a denser signal than we are currently seeing from the current antenna.

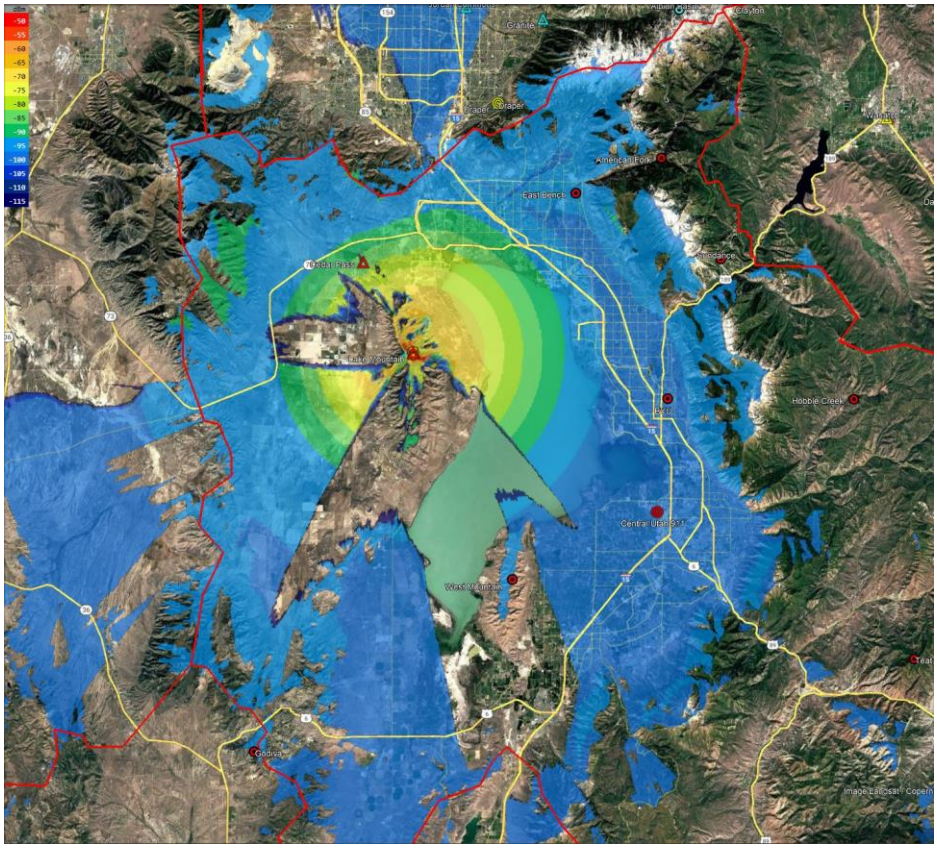
The antennas have been ordered, and we have asked the vendor to expedite the shipment. Each antenna is custom-built, so there is a lead time of many weeks.

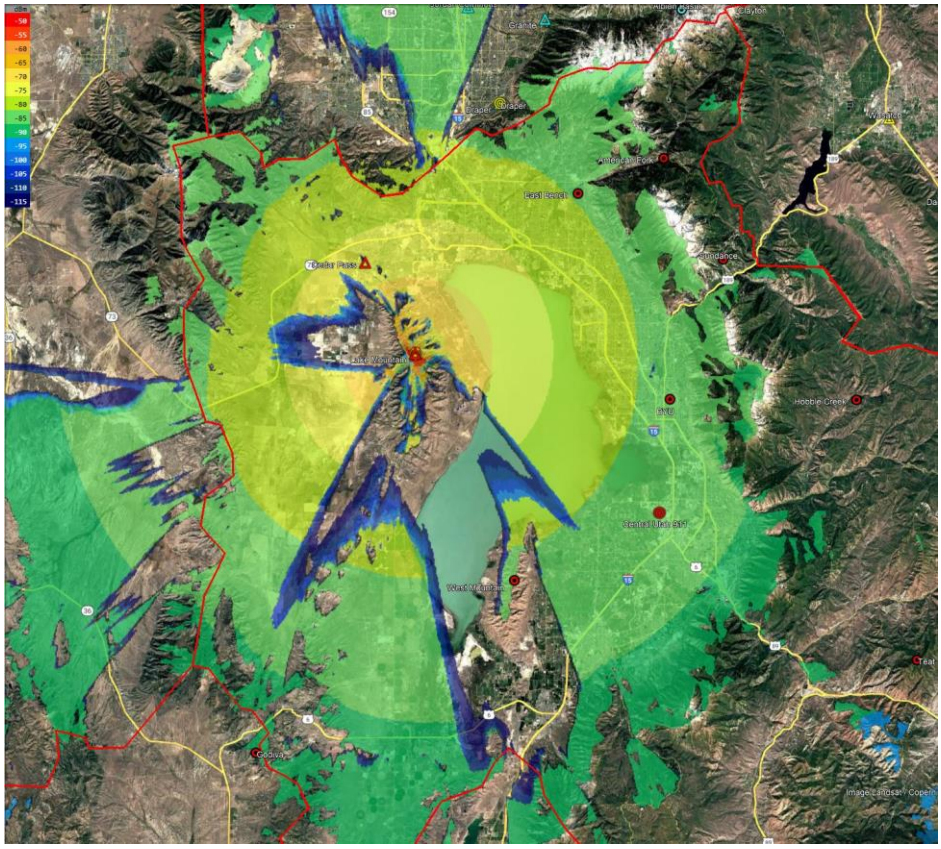
The antenna replacement project is a priority. We will be assigning two teams of three UCA techs, plus an L3H warranty tech. The goal of each team will be to complete two sites per team, per week.

While we wait for the delivery of the antennas, we are performing remote site checks to validate the health of the site and detect potential interference. When we begin the replacements, we will perform general maintenance and re-optimization of the site.

When we begin to receive the antennas, we will communicate a schedule of sites/dates.

Below is a sample of a site where we will be replacing the P25 antennas. The first picture is the coverage with the current P25 antenna, and the second picture is what the coverage is projected to be with the new P25 antenna.





Reviewing Coverage Needs/New Sites

We continue to review coverage needs. We believe we will be adding additional sites throughout the state for some time.

As we receive reports of potential coverage issues, we validate whether we believe we should have coverage in the area and, at times, if we have ever had coverage. If we believe we should have coverage, we begin by validating the end-user equipment status, reviewing the site for potential issues, and working to determine why the end user is experiencing issues.

We have six sites budgeted for FY25, and we will ask for funding for an additional five sites for FY26. We have confirmed five of the six site locations for the FY25 sites; they are as follows:

- Clayton Hills – San Juan
- Henderson Point – Garfield
- Marysvale Canyon – Sevier
- Tucker – Utah
- Phelps Hill – Carbon
- Potential – Emery

We have begun the procurement and location contract processes on several of these sites and will aggressively build them out. We have a tentative list of sites for FY26, but we haven't confirmed any of them to date.

Migrating From Analog to Digital Audio

Public safety radio systems rely on clear, dependable audio to ensure effective critical communication. The Utah Communications Authority previously operated on an analog framework with its legacy system, but the new P25 network marks a shift to a digital platform. Understanding how sound quality differs between analog and digital systems is key to ensuring operational success.

For a detailed explanation of these differences, we invite you to watch the *Analog vs. Digital System Information* video on our website, www.uca911.org. This video provides a comprehensive overview of the distinctions between the two systems.

Reporting Issues

Getting reports from our customers is critical for us to understand the issues we need to address. Although we have systems that can monitor the health of many aspects of our system, there is nothing better than our end users reporting what they are experiencing.

We are available 24/7/365. We have personnel on call, and L3H also has warranty team specialists on call. If there is an emergency, please do not hesitate to call us at 801-840-4216.

If it is a non-emergency issue, we have a portal on our website where you can submit a ticket. Below are detailed instructions.

HOW TO SUBMIT A TICKET THROUGH OUR TICKETING SYSTEM

Submitting a ticket through our ticketing system is a straightforward process designed to help you get non-urgent assistance quickly and efficiently while allowing UCA to identify areas where the new system may need additional support. Whether you're reporting an issue, requesting assistance, or seeking information, following these steps will ensure your ticket is properly submitted and addressed by our team. Here's a step-by-step guide to help you navigate the process.

Step 1: Access the Ticketing System
To begin, visit UCA's website at www.uca911.org. At the top of the page, locate and click the "CONTACT NON-URGENT SUPPORT" link. This will direct you to our ticketing system.

Step 2: Choose the Appropriate Option
Once in the ticketing system, you'll see two options for submitting a ticket:

- **Request Radio/Coverage Issue**: Select this if your concern relates to radio functionality or coverage problems.
- **Request General Support**: Choose this for all other support needs, such as technical issues, console issues, radio programming requests, or general inquiries.

Click the option that best matches your request to proceed.

Step 3: Fill Out the Ticket Form
After selecting your option, a form will appear. Complete **ALL** requested fields, providing as much detail as possible. Include specifics like:

- The nature of the issue (e.g., "Radio loses signal at location A").
- Steps to replicate the problem, if applicable.
- Any error messages or observations.

The more information you provide, the easier it will be for our team to resolve your issue efficiently.

Step 4: Review and Submit
Review your form before clicking "Submit" to ensure all necessary details are included. A thorough submission minimizes delays caused by follow-up questions. When ready, hit **"Submit"** to send your ticket to our support team.

Step 5: Receive Confirmation
Upon submission, you'll receive confirmation via email. This will include a unique ticket number (e.g., #12345) for tracking purposes. Keep this number handy for future reference.

Other Communications

Over the past year, we have tried to be more proactive in communicating with our customers. We have increased the number of newsletters we send out and have encouraged end users to sign up for our listserv, which can be done through our website. On the main page, scroll to the bottom, enter your email address in the "Stay In Touch" box, and click "subscribe."

We also host a "Chat with UCA Team" Teams meeting every 4th Thursday of the month at 10:00 am. This is when the division directors provide an update on issues/projects within their divisions and answer any questions from end users. The meeting details of this are as follows:

Meeting ID: 259 689 149 814
Passcode: K8x5qv98

If you want the calendar appointment forwarded, email Kati Peters at kpeters@uca911.org.

Several agencies/groups have invited me to your local/statewide meetings, and I appreciate the opportunity to meet in person. If desired, please don't hesitate to reach out and schedule an in-person meeting.

I hope this newsletter has provided helpful information that is reassuring. We are working tirelessly to improve the system continually.

Thank you for your time.

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