

# UCA NEWSLETTER



## UCA UPDATE

*UCA's Executive Director, Dave Edmunds*

**Change is a part of life, hard as it may be. Public safety communications in Utah are changing. These changes will lead to an improved communication system and UCA is up to the task and excited for the changes.**

If you are a native Texan, and I am, the advent of fall means one thing: football. If you ever read the book, saw the movie, or watched the television series "Friday Night Lights," you glimpsed my adolescence. Texas high school football is a religion that few outside the Lone Star State can comprehend. To the faithful adherents of its esoteric tenets, it is simultaneously God's greatest and worst creation. In Texas,

a town's fortunes are inextricably tied to the success or failure of a group of boys between the ages of sixteen and eighteen. And if you think that's hyperbole, do yourself a favor, don't venture to the Southland to conduct business of any kind. It's what I know. It's comfortable. It's predictable. But, in so many other ways, it's also pathetic. Predictability and comfort are the hallmarks of mediocrity, and far too many adults in my beloved homeland have allowed a game to define their worth.

As maturity develops, the knowledge that discomfort is the principal objective of life is almost incomprehensible to most of us. We sometimes see glimpses of it, but too often we resist it. Utah's public safety communications apparatus is in the throes of change. Change is frightening and unsettling. However, change is the

only path to progression. Collectively, we are standing at the precipice of an astounding opportunity. We can continue to craft a communications platform that will serve public safety for decades to come, or we can settle for something less than that. UCA, along with our partners, has been given the responsibility to shepherd migrations that are daunting on the best day. That is our lot; and we welcome it.

We hope that the public safety agencies served understand that alterations to the status quo are inevitable if we desire excellence. New service agreements, expert-recommended fleet mapping, innovative system engineering proposals, and so much more, are not intended to encumber your operations. These improvements are intended to enhance your command and control through improved communications. In twenty-first century America, no one has a more difficult job than public safety professionals. UCA will not falter as we continue to provide the finest, most interoperable, public safety communications platform in the country.

**David Edmunds**

Executive Director  
Utah Communications Authority





**"It has been amazing to me to also see the PSAPs and learn more about their operations, as well as the challenges they face"**

## DIVISION SPOTLIGHT

***UCA's 911 Division Director, Melanie Crittenden***

**The NG911 implementation is in process with a significant number of positions and PSAPs migrated to the new system. The migration is ongoing, including the network. The full functionality of NG911 requires participation from originating service providers but Utah is ready when the OSPs begin to provide the data.**

### **The NG911 System**

I'm happy to announce that we are full swing into the NG911 implementation. Since our last newsletter, 911 Call Handling equipment has been installed and cutover in Regions One and Two. Region One PSAPs include the following: Weber Area 911, Bountiful PD, SLVECC, SLC911. Along with Region One PSAPs, installations have also been completed at Salt Lake Communications (DPS), and the University of Utah Dispatch Centers. In Region Two, those PSAPs that have the new statewide phone system includes: Box Elder Communications (DPS), Rich County, Logan 911 Communications, Richfield Communications (DPS), Price Communications (DPS), Tooele County, Millard County, and Sanpete County. This is a total of 166 positions migrated NG911 phone equipment, or approximately 63% of the total number of call handling positions in Utah in approximately three months! I am also happy to announce that every PSAP in Utah is now Text to 911 capable. The four newest PSAPs to receive this Text to 911 technology are in process of notifying the cell phone carriers to allow T2911 calls to their jurisdictions. Once they open that process up, citizens across the state can text to 911, when in Utah.

We are also diligently working on the next phase of the project which is migrating to the new Vesta Routers to utilize the NG911 ESI-net. This is quite the transition for our PSAPs. Moving from their legacy vendor to Guide (MSAG) Coordinators, as well as the

PSAPs' local IT personnel. It's definitely taking a village to accomplish our end goal of completion by March 31, 2022. Along with this comes out-of-state transfers. With the six states that surround Utah, Motorola is reaching out to bordering states' PSAPs to coordinate the 911 location to transfer with the original 911 call. Today, 911 calls that originate in Utah and are transferred to another state don't transfer the non-voice data, such as location. We are working to fix this with the new system. This is a large task and many phone calls to better understand the 911 systems that are used and what it may take to transfer that data across the state line, but this is what true NG911 is and is what the 911 caller deserves – the best service possible when calling 911.

I have been traveling across the state and participating in every cut over at the PSAPs and Dispatch Centers. I can honestly say that I am humbled by the world of 911 technology and everything that goes into building a secure 911 system. It has been amazing to also see the PSAPs and learn more about their operations, as well as the challenges they face. The work that is done at

the PSAPs is extremely important to Public Safety and I envy the work that they perform on a daily basis. Thank you!

While we are very pleased with where things stand, no migration is without its troubles. UCA and Vesta were (and remain) subject to delays of the legacy provider. Notwithstanding, we want the PSAPs to know that we very much appreciate their patience and cooperation through these issues to this point and are thankful for their continued patience as we continue this migration. With any new, large system, there are bugs that have to be worked out. All new circuits are ordered for each PSAP, but it's important to note that at present, the legacy network is still being utilized. We look forward to the full migration as it has enhanced reliability, diversity, redundancy, and security.

We now look forward to the next three regions of phone installations, starting the Vesta Router implementation and getting closer to our end goal.

**Melanie Crittenden**  
911 Division Director

### **UCA ANNOUNCEMENTS AND EVENTS**

**\*\*Save the Date – November 16-17, 2021:**

**Annual UCA Stake Holders Meeting**

**Watch for the schedule and updates for this event at**

**<https://www.uca911.org/>**

**November 3<sup>rd</sup> 10:00 am – 11:am:**

**Interoperability Training (remote)**

**<https://uca911.webex.com/meet/jbaker>**

**November 17<sup>th</sup> 10:00 am-11:00 am:**

**Radio Training (remote)**

**<https://uca911.webex.com/meet/jbaker>**

***Please Contact James Baker at [jbaker@uca911.org](mailto:jbaker@uca911.org)  
For more information about either of these trainings.***



## DIVISION SPOTLIGHTS

*UCA's Radio Division Director, Brad Morris*

**UCA's technicians have worked hard this summer and had great success. UCA is currently upgrading the backhaul to support the new P25 system. We want to welcome Scott Stewart to Southern Utah. We appreciate everybody's patience and understanding as we maintain this old system.**

UCA is engaged in its most ambitious build season

Fall is quickly approaching and we are scrambling to wrap up projects and do maintenance on our high sites before we get snowed out. It is a welcome season for UCA. We anticipate running strong and continuing to accomplish tasks needed to stay on pace with the L3Harris upgrade. The technicians have given so much this summer season and worked so very hard to meet some very lofty goals. At times this included camping

On site at many of the solar remediation locations. I am proud of what we have been able to accomplish and for our technician's commitment to the system by all means necessary.

We are in the midst of upgrading the system backhaul including many new radios and microwave dishes throughout the state and hope to have this accomplished this calendar year. Taking advantage of this beautiful fall weather, our technicians are now divided into teams and will be deploying and testing routers needed to manage a statewide, internet-protocol infrastructure at our sites for radio payload and network management. This is also a monumental task, but we do it in true UCA fashion which is aim huge and eat the elephant one bite at a time.

We have added a site maintenance technician in the southern part of the

State. Scott Stewart has joined the UCA family and will bring his years of experience to help us make sure our sites stay cool as cucumbers. Scott was recently married and settled in Hurricane, Utah. If you run into him, say hi and congratulate him on his recent nuptials and new job!

Again, and as always, please feel free to reach out to me directly with issues that you have or things that we can work on together to improve communications throughout the State. I have had great conversations with many of you, so thank you for taking advantage of that opportunity. Thanks again for all that you do and for letting me serve you better.

**Brad Morris**  
Radio Division Director





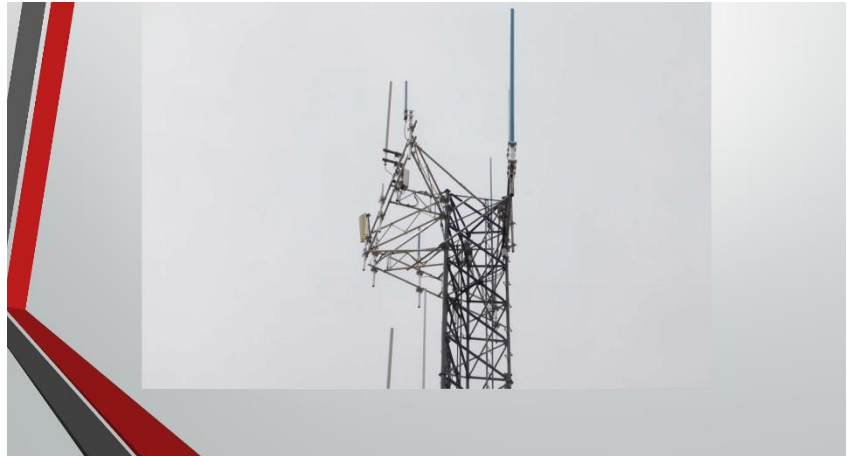
# DIVISION SPOTLIGHTS

***UCA's P25 Division Director, Harold Clements***

**UCA is completing a successful and ambitious season of remediation. Equipment continues to be manufactured and the installations are ongoing with the project on schedule. The P25 equipment will handle GPS data transmissions in accordance with P25 standards.**

Our UCA technicians and L3Harris contractors are closing-in on the completion of their scheduled work for this calendar year. Our technicians successfully took on the most ambitious work schedule in the history of UCA/UCAN and worked diligently to prepare our communication sites for the P25 upgrade. I am impressed with the dedication of our employees who routinely worked fourteen-hour days to complete the required infrastructure upgrades. Some of our employees camped on-site to alleviate long drive times to some of the remote locations. Grounding improvements and infrastructure upgrades are nearly complete for an additional 38 communication sites. We have installed 14 entry ports, moved equipment racks at 37 sites, installed 28 Uninterruptable Power Supplies, installed 17 HVAC units, installed 8 generators, installed 8 battery plants, upgraded 7 solar arrays, and installed 402 electrical outlets with breakers.

We have two design packages left to approve for the 119 communication sites. L3Harris has installed equipment



L3Harris has installed equipment at all Network Switching Center (NSC) locations and we completed the Factory Acceptance Testing for an additional 37 communication sites. The equipment for these 37 communication sites was tested in Virginia while being connected to our NSCs located in Utah. It was amazing to participate in the acceptance testing process and talk on radios in Virginia knowing that the system backbone was installed in Utah.

The third round of equipment production, consisting of 23 RF sites and 177 dispatch consoles, is scheduled to begin in mid-September and continue into February of 2022. Factory acceptance testing for this remaining equipment is scheduled to take place in March of 2022.

I am appreciative of our UCA technicians, UCA staff, L3Harris contractors, partner agencies, and private leasing entities that are working together to complete the P25 project. It is extremely rewarding to know that there are so many people that have a vested interest in making this project a success. The legacy 800 MHz system has been reliable for over twenty years. I am confident that the new P25 system will be just as reliable with all of the competent professionals involved in the implementation.

I have been asked if GPS/AVL will be enabled on the L3Harris P25 system for radio location on an endpoint map. The answer to that question is yes. I have also been asked if Motorola's location data will be able to be transmitted through the P25 system. The answer to that question is also yes. However, if the PSAP's mapping software does not follow the P25 GPS standards, then the data transmitted to the mapping software may not be translated correctly. If you have any further questions about this, please feel free to ask James Baker [jbaker@uca911.org](mailto:jbaker@uca911.org), or myself.

If anyone has any questions about the P25 Radio System upgrade, please feel free to contact me. I can be reached at [hclements@uca911.org](mailto:hclements@uca911.org) or by phone at 801-633-2387.

Picture of entire tower showing the antennas.



**Harold Clements**  
P25 Division Director



# DIVISION SPOTLIGHTS

***UCA's Interoperability Division Director, James Baker***

**UCA has worked with Colorado to improve interoperability in and around Moab and look forward to the upgrades. We have been working with the PSAPs to plan a new region map. Users need to make sure not to drag traffic and create “busies” on the system. Using proper equipment is crucial to coverage for users.**

## **Regional Interoperability**

Due in part to a large majority of the state being covered with trunked system coverage and more and more users joining the system, our ability to interoperate is continuing to grow. While our radio equipment is a vital part of interoperating, the most critical function is our mindset. If you happen to encounter a situation outside of your primary jurisdiction, your regional talkgroup can provide access to hail the PSAP within your region for assistance.

There are numerous examples of public safety personnel who come upon an emergency when they are far from home. Instinctively they hail their home PSAP for assistance. UCA, among other messages, is attempting to educate that in these situations, using the region channel in the area you are located will allow you to contact the local PSAP so that help can be immediately dispatched. Training on these, and many other issues, will continue on an individual and a broad scale by UCA's Interoperability Division.

## **Proper Equipment**

While our vehicle antennas have the same connector on the roof, not all antennas are created equal. For proper access to Utah's VHF and 800mhz system, the coolest looking antenna isn't always the best to communicate.

The instance in the picture to the left, the user has a 800mhz antenna connected to a VHF radio. If your agency needs assistance with making sure you are operating with the proper equipment please reach out to UCA.

## **System Busies**

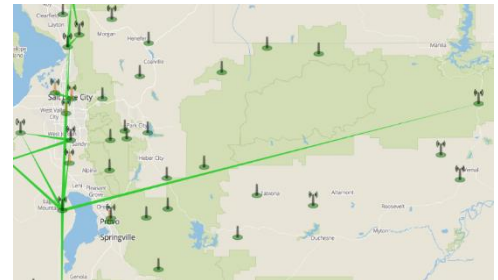
The nature of the majority of the radio traffic being mission critical there is some radio traffic during a critical incident that can be locally policed to help reduce “Busies” on the radio system.

In a perfect world, an event that can be moved onto a Event, Ops, or Region channel is recommended.

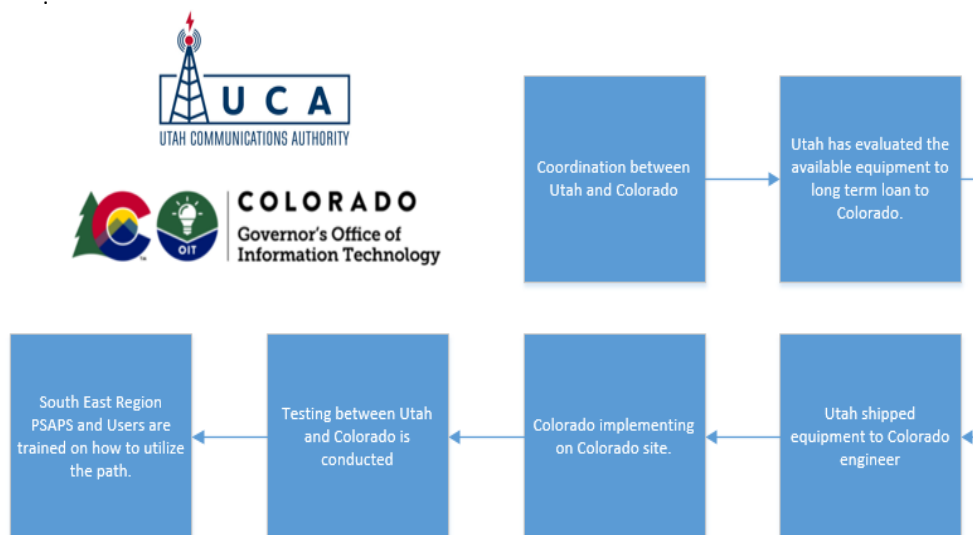
Note that while a user's secondary channel like a Car to Car talkgroup appears to be clear to talk on, it still occupies a slot that could be necessary for the users working the critical event. While working to assist a neighboring agency with a large scale event everyone being on the same talkgroup is best. If you are experiencing an abnormal amount of system busies please reach out to UCA to conduct an analysis on the sites your disciplines utilize.

## **Colorado Interoperability**

On August 25<sup>th</sup> UCA was able to



coordinate with the State of Colorado's Office of Information Technology (OIT) to establish a plan to interoperate between Utah and Colorado. Below I have attached the flow of the project. We are currently in the middle of completion as UCA has sourced the necessary equipment and shipped to Colorado for install. Upon completion UCA and OIT will conduct testing to validate the path is reliable. UCA will then contact a training with the PSAP's in the Southeastern region of the state to educate the use of the resource.



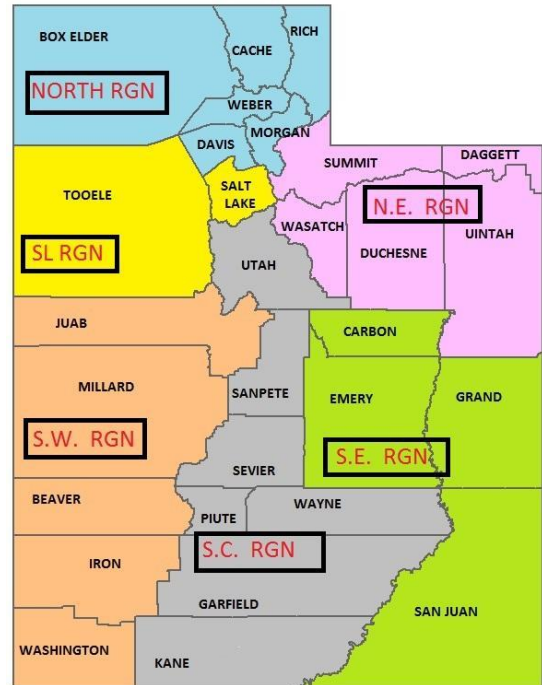
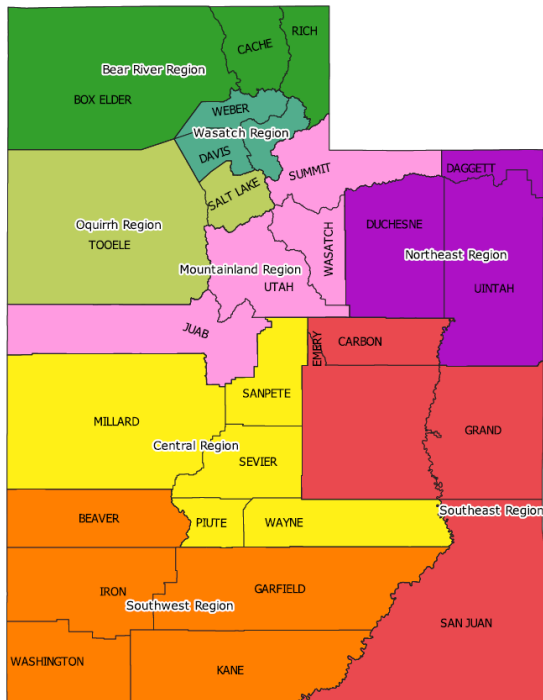


# DIVISION SPOTLIGHTS

## UCA's Interoperability Division (Continue)

### Proposed Region Map

As progress continues down the path of implenting the new L3 Harris P25 Phase II trunked radio system UCA and the PSAP advisory committee have been working together in making sure Utah is best suited for the future. Due to the present defined Region map being dated back to 2014 (represented here on the right) the committee has proposed dividing the state into eight regions from the original six. This will reduce radio traffic in the central and south west area of the state.



The proposed map seen here on the left will reduce radio traffic in the central and south west area of the state.

It has also been determined that the regional boundaries better align with several other government regional boundaries within Utah.

As a refresher this regional boundary map is utilized to access region wide interoperability talk groups that are shared in every subscriber (radio) in the designated region.

James Baker  
Interoperability Director