

#### 2019 Radio Training



## Overview

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- Interoperability
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- -8tacs (if in the template)
- -Moving from main talk group to regional talk group
- -taking resources away from local site
- -Dispatch Coordination of ops and event channels
- Subscriber over view
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- -How to locate radio I.D.
- Emergency activation and de-activation
- General radio nomenclature
- -Zone configuration



# Users of the UCA system

 The UCA Trunked radio system (T.R.S.)consists of local, county, state, and Federal government public safety partners.



### System Overview



## Interoperability in Action



-Lone Peak High School Lock Down

-Utah County Dispatches Lone Peak PD on UTAH LAW 2.

-Lone Peak responds

-Sergeant Brooks arrives requests mutual aid

-Approximately 120 L.E.O. responded from surrounding counties.

-O.I.C. had every responding agency move to "SL RGN" talkgroup.

-All agencies where able to communicate and coordinate the monumental task of safely clear a high school.

# Interoperability

- Region
- Ops (Area/County) specific)
- Events (1-16) System wide
  - (1-7)Pre-assigned for Emergency Need
  - (8-16) Available for Assignment
    - Additional Emergency and or Scheduled Event
- V-tac and 8-Tac local assets
- Dispatch Centers Involvement
  - Console patch to 150 MHz (LES, SRS, 155.505, Local)



# Wide Area Coverage

- With the addition of agencies and a growing partnership with our community public safety leaders, wide area coverage management is critical.
- It is important that when a local user leaves there coverage area that they either move to a regional talkgroup or power off there user equipment.
- The local users coverage may or may not have more available system resources available then where they end up traveling to. In this case the possibility for local users to get denied assess to there necessary local talkgroups if a roaming user has tied up the local users resources.



# Wide Area Coverage example.



## Subscriber

- Subscriber equipment: Consists of either a portable or mobile radio.
- Portable radio: A terminal that can be easily held in the hand with a lower power output and easily carried.

11(0) 1(0) - (0) -

 Mobile Radio: A terminal that is ordinarily installed in a fixed application like a automobile or installed in a base type application and generally has a higher output then a portable.



# Radio I.D.

- For the trunked radio system to accurately process and route a call on the system, each subscriber needs a individual radio I.D. that is specific to each subscriber.
- This I.D. is assigned at the initial programming of the radio on the U.C.A. system.
- This I.D. is the number that is paired with the users Alias of choice to be displayed on there respective dispatch consoles.
- An example of this would be 7035252 on the radio being paired with the Alias: Jbaker-P to let dispatch know that the radio that is calling them is "Jbaker's" portable radio.
- In all Motorola subscribers this number can be located by selecting the assigned call button and navigating to the my I.D. screen.
- In all Kenwood (EFJohnson) subscribers the I.D. appears on power up of the radio.
- All current system I.D.'s begin with the number "7".



#### **XTS Portable nomenclature**



#### Buttons and Controls

Index	Description	Conventional	Trunking
1		Power/Volume	Power/Volume
2	Three Position Concentric		
	Position A	Zone Select	Zone Select
	Position B	Zone Select	Zone Select
	Position C	Zone Select	Zone Select
3	Rotary Control	Channel Select	Channel Select
4	Top Button	Unprogrammed	Emergency
5	Side Button - Top	Light	Light
6	Side Button - Middle	Volume Set Tone	Site Displ/Srch
7	Side Button - Bottom	Monitor	Private Call
8	Data Button	Unprogrammed	Unprogrammed



#### **APX Portable Nomenclature**



Index	Description	Conventional	Trunking
1		Power/Volume	Power/Volume
2	Two Position Concentric		
	Position A	Blank	Blank
	Position B	Scan	Scan
3	Three Position Toggle		
	Position A	Zone Select	Zone Select
	Position B	Zone Select	Zone Select
	Position C	Zone Select	Zone Select
4	Rotary Control	Channel/Sub Select	Channel/Sub Select
5	Top Button	Unprogrammed	Emergency
6	Side Top Button	Light/Flip	Light/Flip
7	Side Middle Button	Monitor	Private Call
8	Side Bottom Button	TalkAround/ Direct	Site Displ/Srch
9	Data Button	Blank	Blank
0	Keypad Buttons		
	Zero (0)	MS01	MS01
	One (1)	MS02	MS02
	Two (2)	MS03	MS03
	Three (3)	MS04	MS04
	Four (4)	MS05	MS05
	Five (5)	MS06	MS06
	Six (6)	MS07	MS07
	Seven (7)	MS08	MS08
	Eight (8)	MS09	MS09
	Nine (9)	MS10	MS10
	Star (*)	Keypad Digit	Keypad Digit
	Pound/Hash (#)	Keypad Digit	Keypad Digit



# **APX/XTL Nomenclature**



Buttons and Controls					
Index	Description	Conventiona	al Trunking		
1	Orange Button	Emergency	Emergency		
2	Side Top Button	Blank	Blank		
3	Side Middle Button	Blank	Blank		
4	Side Bottom Button	Blank	Blank		
5	Navigation Controls				
	Up Button	Zone Up	Zone Up		
	Down Button	Zone Down	Zone Down		
6	Data Button	Blank	Blank		
7	Keypad Buttons				
	Zero (0)	MS10	MS10		
	One (1)	MS01	MS01		
	Two (2)	MS02	MS02		
	Three (3)	MS03	MS03		
	Four (4)	MS04	MS04		
	Five (5)	MS05	MS05		
	Six (6)	MS06	MS06		
	Seven (7)	MS07	MS07		
	Eight (8)	MS08	MS08		
	Nine (9)	MS09	MS09		
	Star (*)	Keypad Digit	Keypad Digit		
	Pound/Hash (#)	Keypad Digit	Keypad Digit		



# EF Johnson / Kenwood



# **Radio Zone Configuration**

- Common Talk Groups
- Common Channel Names
- Common locations in the Radios
- Common Operational Procedures when using the system
- Dispatch Policies (Who's in charge)
- TRAINING, Training, Training



# Radio Zone configuration (Cont.)

- Zones 1 and 2: Set to the needs of the local user.
- Zone 3: Programmed with OPS and Regional Channels.
- Zone 4 : Event talkgroups
- Zone 5: National conventional 8-tacs and Utah State repeaters.
- Zone 6: Lockdown Zone
- Zones 7: Additional zones set to the needs of the particular user.



## Lockdown Zone

- In normal operation of the system, all communications are processed by the central controller.
- If your local site or site's loose communication with the central controller you can continue communications locally by switching to your radios lockdown zone.
- The lockdown zone limits you to a single site and only provides the coverage of the site that the particular channel in the zone is programmed to communicate on.



# Emergency (de)activation

- Subscribers that have the emergency button defined in there template, this function can be activated in an emergency by depressing the defined button. Ordinarily the orange button on the top of the portable radio or orange button the face of the mobile radio.
- To deactivate this function after it has been activated simply press and hold the same orange button until you hear a long tone that indicates the emergency has been cleared.



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CA

UTAH COMMUNICATIONS AUTHORITY





Certified Radio Technician

#### **Open Discussion**