



## The Region 41 Plan 700 MHz Frequency Plan

## **Contributions**

The Region 41 Planning Committee acknowledges the following agencies for their contributions of time, material and dollars towards completion of this plan:

The National Public Safety Telecommunications Council (NPSTC)

State of Utah Division of Information Technology Services

State of Utah Department of Public Safety

Logan City, Utah

Utah Communications Agency Network

City of St. George, Utah

To all departments, agencies, cities and counties who attended meetings and provided input into the process.

# TABLE OF CONTENTS

REGIONAL CHAIRPERSON .....	4
RPC MEMBERSHIP .....	4
DESCRIPTION OF THE REGION.....	5
NOTIFICATION PROCESS.....	9
REGIONAL PLAN ADMINISTRATION .....	11
UTILIZATION OF INTEROPERABILITY CHANNELS.....	13
ADDITIONAL SPECTRUM SET ASIDE FOR INTEROPERABILITY WITHIN THE REGION .....	17
ALLOCATION OF GENERAL USE SPECTRUM .....	21
AN EXPLANATION OF HOW NEEDS WERE ASSIGNED PRIORITIES IN AREAS WHERE NOT ALL ELIGIBLES COULD RECEIVE LICENSES .....	23
ADJACENT REGION COORDINATION .....	24
A CERTIFICATION BY THE REGIONAL PLANNING CHAIRPERSON THAT ALL PLANNING COMMITTEE MEETINGS, INCLUDING SUBCOMMITTEE OR EXECUTIVE COMMITTEE MEETINGS WERE OPEN TO THE PUBLIC .....	26
<u>Appendix A</u> : PLAN REVISION HISTORY .....	28
<u>Appendix B</u> : REGION 41 BY-LAWS .....	29
<u>Appendix C</u> : MEMBERSHIP .....	35
<u>Appendix D</u> : CHART OF FREQUENCY ASSIGNMENTS .....	37
<u>Appendix E</u> : MEETING AGENDAS AND MINUTES.....	47
<u>Appendix F</u> : TRIBAL INFORMATION.....	68
<u>Appendix G</u> : DISPUTE RESOLUTION .....	70
<u>Appendix H</u> : NOTIFICATION.....	72
<u>Appendix I</u> : BROCHURE.....	73

## 1.0 Regional Chairperson

### Steve Proctor

Executive Director

Utah Communications Authority (UCA)

5360 South Ridge Village Drive

Salt Lake City, Utah 84118

Voice: (801) 840-4201

Fax: (801) 840-4242

[sproctor@uca911.org](mailto:sproctor@uca911.org)

## 2.0 RPC Membership - Officers

### Chair:

Steve Proctor

UCA

801-840-4201

[sproctor@uca911.org](mailto:sproctor@uca911.org)

### Vice Chair:

Randy Auman

Logan City PD

435-716-9420

[rauman@loganutah.org](mailto:rauman@loganutah.org)

### Secretary:

Doug Chandler

State of Utah

801-965-4538

[dchandler@utah.gov](mailto:dchandler@utah.gov)

### Treasurer:

Tony Mason

Midvale City PD

801-256-2500

[tmason@midvale.com](mailto:tmason@midvale.com)

## 3.0 County Map

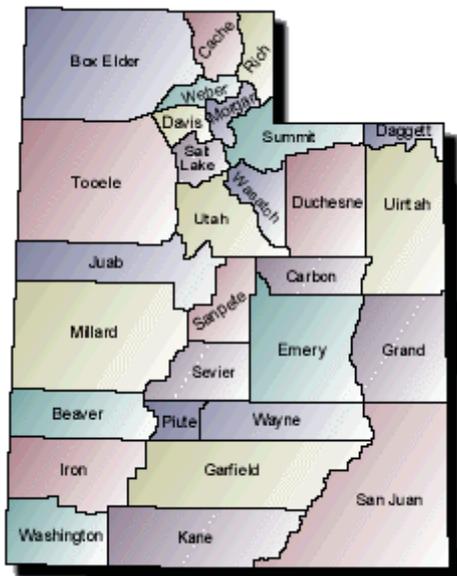


Figure 3-1 Utah's 29 Counties

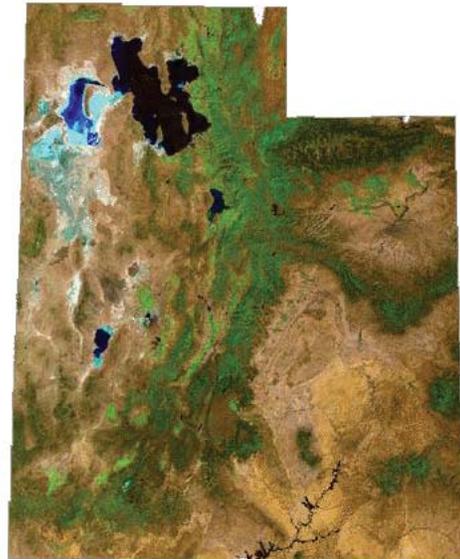


Figure 3-2 Utah Satellite Image

### 3.1 General Description of Region 41

Region 41 is comprised of the state of Utah including all 29 counties within its boundaries. The geographic terrain in Region 41 is varied with elevations ranging from 2,000 feet to over 12,000 feet above sea level. Population centers are primarily concentrated along the Wasatch Front and in Cache and Washington Counties. Other counties in Region 41 have smaller centers of population with vast areas of sparsely populated deserts and mountains. Salt Lake, Weber, Davis, Utah, Cache, and Washington Counties require the most spectrum resources based on population density and public safety involvement in concentrated population centers. The total population of Region 41 was placed at 2,230,660 by the 2000 census. The state's population centers supported by regions that have formed associations of government that share common issues. Those regions are further defined as the following.

**The Bear River Region** consists of Box Elder, Rich and Cache Counties. The Bear River area covers approximately 7,917 square miles and is bordered by Regions 12 Idaho, 25 Nevada, and 46 Wyoming. This area has a diverse geography from the Salt Flats to high mountain peaks. The total population for the Bear River Region is 136,097.

**The Wasatch Front Region** consists of Davis, Morgan, Salt Lake, Tooele, and Weber Counties. This Region has both the most urbanized county in the state, Salt Lake County, and the least urbanized county, Tooele. The total square miles of the combined region is 8,413. With a total population of 1,381,778, this region represents 61% of the state's population. The Wasatch Front Region is bordered by Region 27 Nevada.

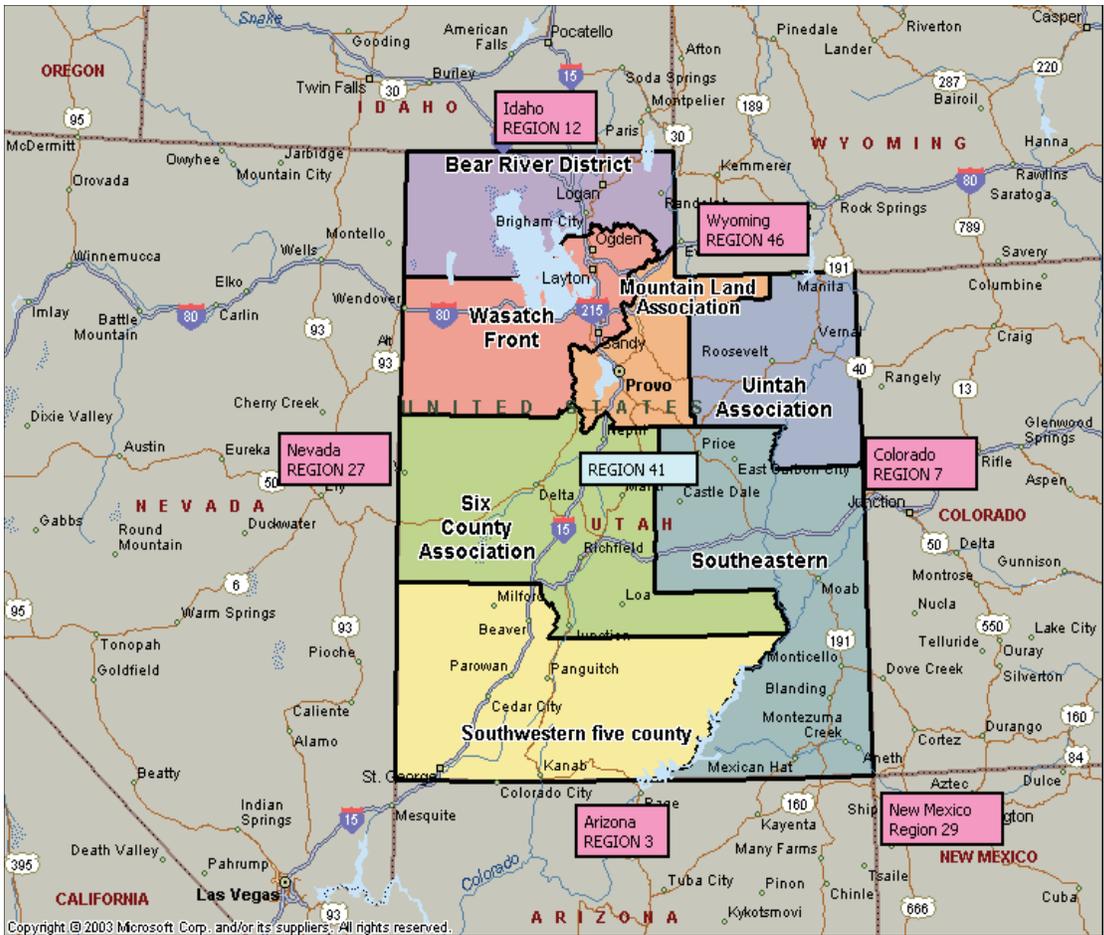
**The Mountain Land Region** consists of Summit, Utah, and Wasatch counties with a total population of 413,487. The total square miles of the region is 5,046 with most of the population confined to incorporated areas. The population has increased steadily with 90% of the residents living within Utah County. The Mountain Land Region is bordered by Region 46 Wyoming.

**The Uintah Region** includes the counties of Daggett, Duchesne and Uintah. The total population of the Uintah Region is only 40,516. The total square miles of this region is 8,413. This mountainous area ranges in elevation from 4,600 to 13,528 at Kings Peak in the Uintah Mountains. This mountain range is unique as it is the only range in the United States that runs east to west, with high mountain valleys and glaciated mountain peaks. The Uintah Region is bordered by Region 7 Colorado and Region 46 Wyoming.

**The Six County Region:** This region includes Juab, Millard, Piute, Sanpete, Sevier and Wayne Counties. The Piute Indian Tribe of Utah has a large presence in the Six County Region that is situated in the central part of the state. The Six County Region contains 16,697 square miles. With a population base of 63,683 it is sparsely populated. Most of this region is arid desert. This region is bordered by Region 25 Nevada.

**The Southeastern Region** consists of Carbon, Emery, Grand, and San Juan Counties. This region is also known as Canyon Country and includes the "four corners"- the only area in the United States where four states meet. This region borders Arizona Region 3, New Mexico Region 29, and Colorado Region 7. This region is known for its extreme elevation changes from deep river gorges to high mountain peaks. The total square miles of the combined region is 54,180 square miles. The total population of the Southeastern Region is 17,432.

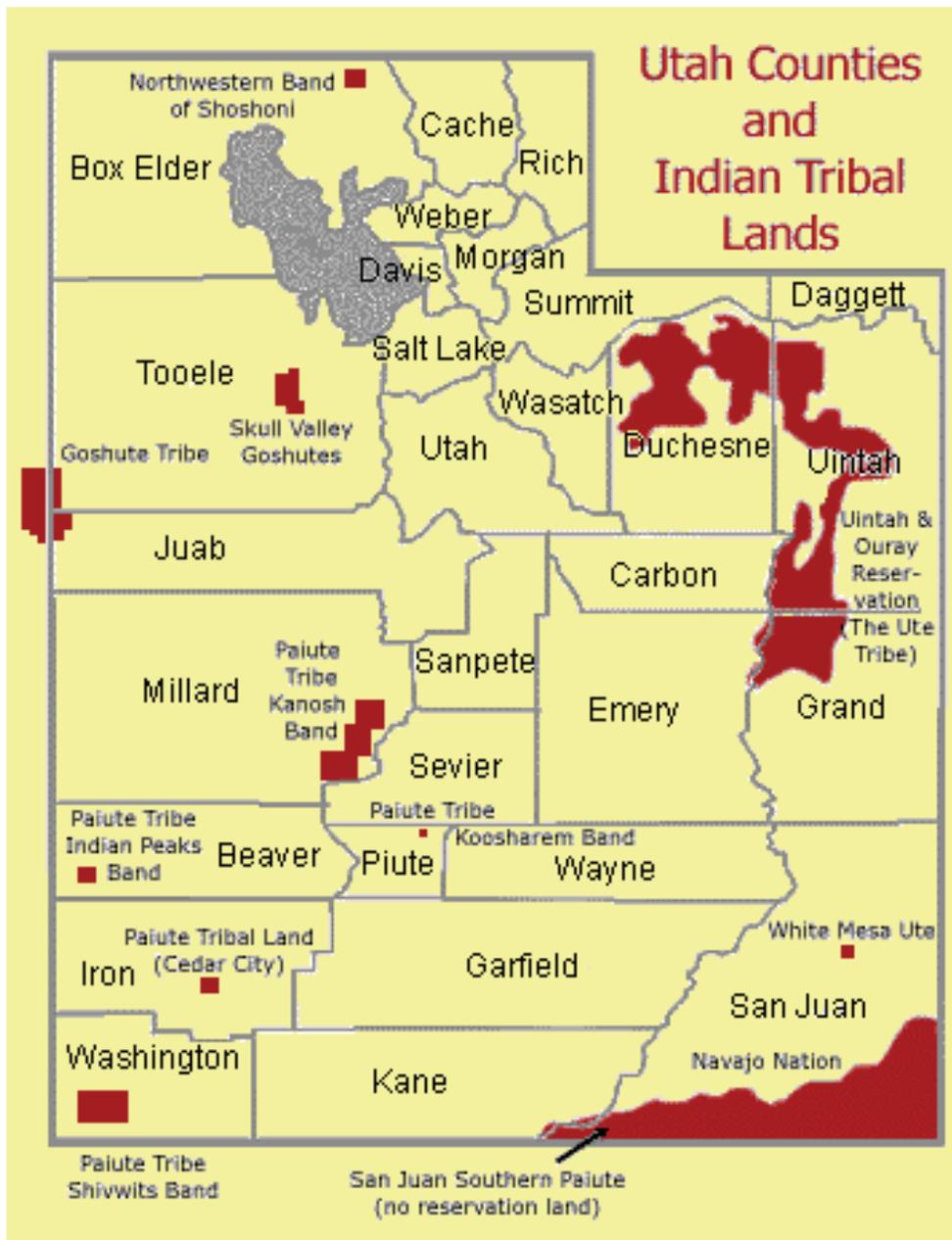
**See attached map for definitions of the regions.**



**Regional Areas of Utah**

**UTAH NATIVE AMERICAN TRIBES:** There are five major Native American tribes that inhabit Utah, they are the: 1) Ute; 2) Dine (Navajo); 3) Piute; 4) Goshute; and 5) Shoshone. The Ute tribe has 3,300 members and control of 1.3 million acres of land. The Dine (Navajo) has 7,000 members. The Goshute, with two tribes, has 536 members and 112,085 acres of land to the west of Salt Lake City. The Shoshone tribe has 187 acres and 383 members. Most of the Native American lands are concentrated in the south and eastern part of the state. The following map represents the Native American Tribes located in Utah.

Each Native American Tribe located in Utah was formally notified by the RPC, in writing and provided a copy of the draft plan to comment on. Copies of the letters are in Appendix F.



### Native American Tribe Locations

Geography Quick-Facts	Utah	USA
<b>i</b> Land Area (square miles)	82,144	3,537,438
<b>i</b> Persons per square mile	27.2	79.6

People Quick-Facts	Utah	USA
<b>i</b> Population, 2000	2,233,169	281,421,906

### 3.2 Census Information by County 2000<sup>1</sup>

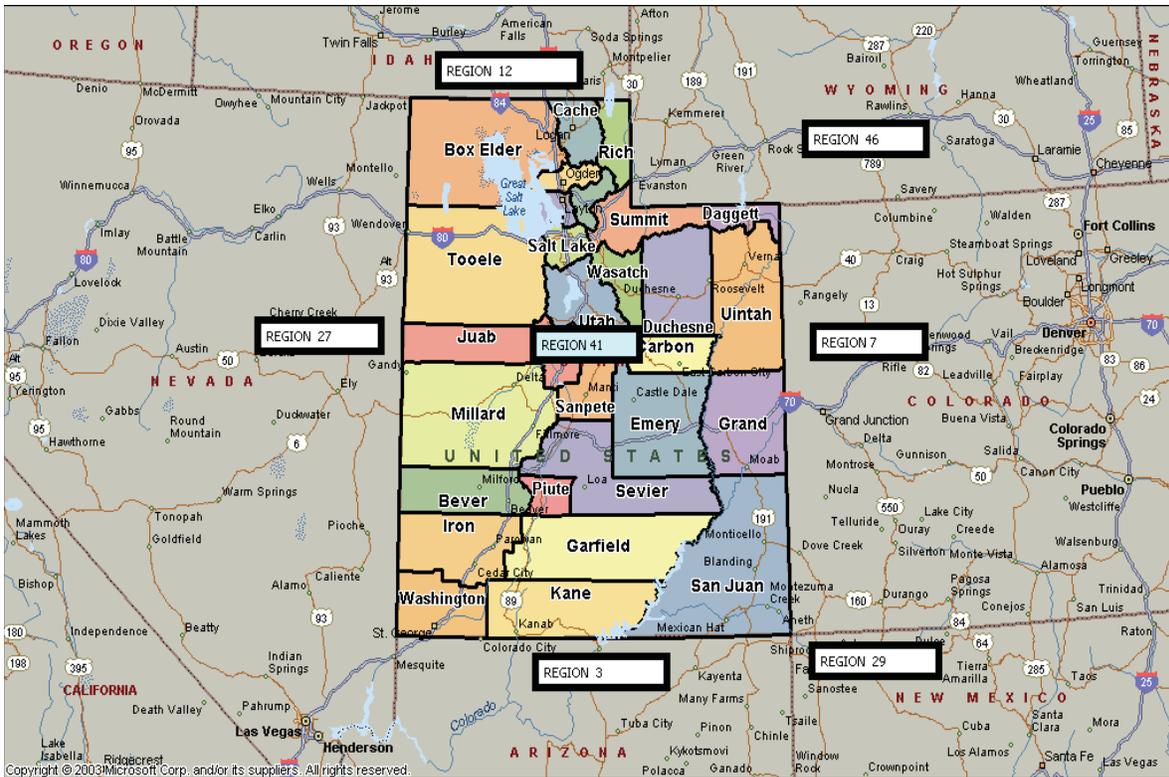
County	Population	Housing Units	Households	Land Area	Persons per sq. Mile
Beaver	6,005	2,660	1,982	2,590	2.3
Box Elder	42,745	14,209	13,144	5,723	7.5
Cache	91,391	29,035	27,543	1,165	78.5
Carbon	20,422	8,741	7,413	1,478	13.8
Daggett	921	1,084	340	698	1.3
Davis	238,994	74,114	71,201	304	784.9
Duchesne	14,371	6,988	4,559	3,238	4.4
Emery	10,860	4,093	3,468	4,452	2.4
Garfield	4,735	2,767	1,576	5,174	0.9
Grand	8,485	4,062	3,434	3,682	2.3
Iron	33,779	13,618	10,627	3,298	10.2
Juab	8,238	2,810	2,456	3,392	2.4
Kane	6,046	3,767	2,237	3,992	1.5
Millard	12,405	4,522	3,840	6,589	1.9
Morgan	7,129	2,158	2,046	609	11.7
Piute	1,435	745	509	758	1.9
Rich	1,961	2,408	645	1,029	1.9
Salt Lake	898,387	310,988	295,141	737	1,218.4
San Juan	14,413	5,449	4,089	7,820	1.8
Sanpete	22,763	7,879	6,547	1,588	14.3
Sevier	18,842	7,016	6,081	1,910	9.9
Summit	29,736	17,489	10,332	1,871	15.9
Tooele	40,735	13,812	12,677	6,930	5.9
Uintah	25,224	9,040	8,187	4,477	5.6
Utah	368,536	104,315	99,937	1,998	184.4
Wasatch	15,215	6,564	4,743	1,177	12.9
Washington	90,354	36,478	29,939	2,427	37.2
Wayne	2,509	1,329	890	2,460	1.0
Weber	196,533	70,454	65,698	576	341.5

### 3.3 Surrounding Regions

Six Regions border region 41:

Region 12 – Idaho  
 Region 46 – Wyoming  
 Region 27 – Nevada

Region 7 – Colorado  
 Region 3 – Arizona  
 Region 29 – New Mexico



## 4.0 Notification Process

Region 41 is comprised by the state of Utah and its political subdivisions. Utah has 29 Counties. Sixty days prior to convening the initial 700 MHz Regional Planning, meeting notices were sent electronically to the FCC Wireless Telecommunications Bureau and the Associated Public Safety Communications Officials National Office. An ad was placed in the two local papers, *The Deseret News* and *the Salt Lake Tribune*, with state-wide distribution announcing the Regional planning meeting, date time, location and agenda. Within the state of Utah notices were sent to the Utah League of Cities and Towns, The Utah Association of Counties, The Utah Sheriff’s Association and The Utah Chiefs of Police Association. Notifications were also posted on the websites of the Bear River Association of Counties, Wasatch Front Regional Council, Five County Association of Governments and the Mountainland Association of Governments. Schedules and notifications of the meetings were also distributed at the monthly meetings of the Utah Communications Agency Network (representing 112 public safety agencies with public safety communications) and the Utah Wireless Interagency Network a group of state and local telecommunications providers who meet monthly. The convener, Steve Proctor also contacted several agencies via telephone and email that expressed interest in the planning process (see Appendix H). The first meeting was scheduled and held on November 21, 2003 at the Valley Emergency Communications Center 5360 South Ridge Village Drive, Salt Lake City, Utah. A website was established at [www.uwin.utah.gov](http://www.uwin.utah.gov), with a 700RPC tag identifying the information regarding the planning process. A Brochure was designed and published and provided for distribution at each of the Region meetings. Copy in Appendix I.

## **4.1 First Region 41 Planning Meeting November 31, 2003**

The first Regional Planning Meeting (Minutes in Appendix E) was convened by Steve Proctor, chairperson for the Region 41 800 MHz Planning Committee. The Meeting was held on November 21, 2003. Notices were sent 60 days or more prior to the meeting, by mail, to APCO, FCCA, IMSA, ASHTO and the FCC. The meeting was advertised with the Utah Wireless Integrated Network committee, the Utah Sheriffs Association, and the Utah Police Chiefs Association. The Federal Communications Commission issued a Public Notice of the meeting. The Utah State Office of Emergency Services sent representatives to the meetings. This agency represents National Security and Emergency Preparedness at the state level. They are responsible to coordinate with local emergency preparedness offices. The convener, Steve Proctor also contacted several agencies via email that expressed interest in the planning process. There were 73 attendees representing 48 individual agencies of state and local government present at the meeting. A power point presentation was given to provide a brief explanation of the purpose of the 700 regional planning process, the issues surrounding the use of 700 MHz spectrum, input to the planning process, and the relationship to other public safety frequency assignments. The presentation also highlighted the history of the 700 process and the regional efforts taking place in the other 55 regions across the country. Discussion also included the frequencies in the 4.9 GHz band and the administration of that portion of the frequency assignments. (A copy of the Region 41 Plan for 4.9 GHz is included in Appendix B). Proposed by-laws were also presented at the meeting for review and were approved with minor wordsmith changes. The by-laws will act as the governing document of the RPC Process. The by-laws cover membership, voting, tenure, powers and rights suspension and removal and resignation. They also cover meetings, notification and the establishment of an Executive Committee. They allow for the establishment of sub-committees. The RPC will operate under Roberts Rules of Order. Those by-laws are in Appendix B.

## **4.2 Election of Officers**

Nominations were accepted for chairperson of Region 41. Terry Ingram of Valley Emergency Communications Center, Dan Pearson of South Jordan City, Randy Auman of Logan City and Steve Proctor of Utah Communications Agency Network were placed in nomination. Camille Anthony, director of the Department of Administrative Services for the State of Utah, was asked to conduct the election. Before the vote was taken, a discussion was conducted regarding the voting process. State Departments (not divisions) would each be allowed one vote. A city department could have multiple votes for police, fire, EMS etc. Consolidated Dispatch centers were allowed one vote each. Each candidate was given an opportunity to address the participants before the vote was taken. A recess was held so as the candidates could be discussed. Each candidate was able to affirm that their respective agencies would support them with resources, time and finance. Following the break, the vote was held and Steve Proctor was elected Chairperson. The process continued electing Randy Auman as Vice Chair, Doug Chandler as Secretary, and Tony Mason as Treasurer. The next meeting was announced for January 16, 2004. If a change in leadership is necessary the process is defined in the by-laws of the Region 41 RPC. Because of the geography and demographics of Utah the committee decided to hold regional meetings in rural areas of the state to promote and solicit input into the planning process. It was also an opportunity to educate and dispel rumors about use of 700 MHz spectrum. One of the concerns was that everyone would “have to move” to 700. This discussion provided users with the knowledge that they did not have to move, and that 700 spectrum was available for new and future public safety applications. RPC

Meetings were subsequently held in Salt Lake City, Logan, Richfield, Price, Moab, St. George, and Ogden. Teleconference facilities were made available at each of the RPC meetings. Video conferencing was also available at several of the facilities. Vice Chair Randy Auman gave a presentation at each of the meetings explaining the purpose of the planning process and the use of the 700 frequencies. After the initial meeting in each of the cities, it was determined we would write a draft of the plan and schedule additional meetings for discussion and further input. After that, we would publish the final plan for submittal to the Federal Communications Commission Wireless Bureau. Regular meetings of the RPC will be held on an annual basis unless otherwise scheduled. Meetings, notices and scheduling of such are detailed in the By-laws. After approval of the plan by the FCC, the RPC will hold at least two meetings per year for the purpose of accepting applications for use of the spectrum. More meetings can be scheduled as needed if more applications are received. The process for scheduling the meetings is for the RPC Chairperson to, with 30 days notice, schedule the meeting inviting all participants to attend.

## **5.0 Regional Plan Administration**

The following paragraphs describe the administration of the plan for Region 41. Any procedures not covered in this section are outlined in the Bylaws, Appendix B.

### **5.1 Sub-committees**

In the second meeting of the RPC, sub committees were established. Committee assignments were established to consider Implementation and Technology, co-chaired by Boyd Webb and Jeff Dial, Interoperability chaired by Floyd Ritter, Mobile Data chaired by Brian Low, 4.9GHz chaired by Tim Cornia. Each of these committees was given direction as to the issues they need to explore, discuss and report on. Sub Committee Reports became standing items for discussion on each meeting. Membership on any committee is open to any interested party.

### **5.2 Procedure for Requesting Frequency Allotments**

Upon completion and approval of this plan, requests for frequency assignments will be accepted. Agencies desiring allocations shall submit a request in writing to the Regional Planning Committee Secretary indicating their need for frequencies. The request will be considered as long as it provides no evidence of harmful interference to other users. Agencies need to provide justification for use of the spectrum. Requests will be considered on a first come first serve basis with the postmark as the tiebreaker. Other consideration taken into consideration for determination of priority of application will be:

- a. Users who are involved in the protection of life and property.
- b. Multi-Agency shared systems that multiple agencies agree to construct a common infrastructure. (i.e. State, City, County and others)
- c. Large agencies with multiple divisions constructing a common system for all to use. (i.e. A large city or county with multiple divisions).
- d. Trunked use of the frequencies.
- e. Approved funding to construct the system using the 700 MHz frequencies.
- f. A definition of what, how many, and when others will return frequencies being replaced with 700 frequencies for use.

Technical Parameters of the application will be followed as noted in Section 7.0 of this plan. Agencies will need to document fully technical information, sites, tower heights, area of coverage, ERP of transmitter sites. Agencies are expected to construct systems with maximum signal levels in their coverage area and minimum signal levels in co-channel users coverage areas. Coverage area in the context of this plan will be defined as the geographical boundaries of this agency(s) system plus eight miles. The RPC realizes that radio signals don't stop at political borders. Our attempt is to maximize the use of the frequencies by packing as many users as possible per channel.

Upon completion of an initial review of the application, the RPC will forward copies to each of the existing 700 users for concurrence. A thirty-day comment period will be allowed for users to comment on new applications. Should concerns exist the agency will reply in writing to the RPC Secretary for consideration by the approval committee. The agency applying will be allowed to make modifications to the application.

### **5.3 Frequency Approval Committee**

Region 41 will have a 700 MHz Frequency Application Approval Committee. The purpose of this committee will be to approve the applications of agencies requesting the use of 700 Spectrum. Approval of this committee will be required before an agency can forward the application for coordination and licensing. The committee will consist of the current 700 RPC Chairperson and four members elected from the membership of the Regional Planning Committee. Members of the committee will be elected by a majority of the RPC membership at the annual meeting. There will be no limits to the number of terms that an individual can serve on the approval committee. Best efforts will be made to insure the diversity of the committee to be representative of state, local, federal and tribal governments. Best efforts will also be made to utilize persons with technical capabilities and spectrum management experience. This committee will approve and forward applications for both voice and data channels. Approval is by a majority vote of the five members of the committee.

### **5.4 Dispute Resolution**

In the event that an agency disputes the implementation of this plan after FCC approval, the agency will notify the RPC chair in writing outlining the dispute in detail. The chair with thirty days notice will call a regional planning committee meeting initiating all involved to resolve the dispute on an informal basis. If after a formal meeting the dispute cannot be resolved, the chair shall appoint a committee made up three members not representing the agency in the dispute. The chair shall represent the region. The committee shall meet in executive session to prepare an acceptable resolution and recommendation to resolve the dispute. Should this not resolve the issue, all documentation will be forwarded to the Federal Communications Commission for final resolution.

Frequency dispute resolution will be negotiated on a case-by-case basis utilizing the agencies involved and the frequency approval committee. The RPC chairperson will facilitate the meeting. Should efforts fail to resolve the issue locally, the issue and documentation will be forwarded to the FCC for final resolution.

## 6.0 Utilization of Interoperability Channels

The ability of Agencies to effectively respond to emergency and disaster situations will be better facilitated by the ability to communicate. Utah has urban population centers and diverse geography that require cooperative efforts between agencies. In both the VHF and 800 Bands, frequencies and common talk groups have been set aside to establish links for the purpose of mutual aid and dispatch communications. In order to facilitate use and interoperability on the 700 band, Region 41 will use the same philosophy in developing common calling channels in the 700 spectrum. Administration of the interoperability channels will be done by the Office of Statewide Interoperability Coordinator within the Utah Communications Authority as authorized by Utah Code, Title 63H, Chapter 7a with an effective date of 1 July 2014.

### Section 6.1 FREQUENCY ASSIGNMENTS

#### 6.1.1 Calling Channels

Region 41 will utilize the table of interoperability channels that are prescribed by the National Coordination Committee Process.

Table of Interoperability Channels  
For Specific Users / Services  
(Adopted by the FCC in the 4th MO & O, WT Docket 96-86 Dated March 5,2002)

Television Channels 63 / 64  
Note: Only Base Transmit Side of Channel Pairs is Shown

CHANNEL SETS	DESCRIPTION	LABEL
Channel 23 & 24	General Public Safety Services (secondary trunked)	7GTAC05
Channel 103 & 104	General Public Safety Services (secondary trunked)	7GTAC07
Channel 183 & 184	General Public Safety Services (secondary trunked)	7GTAC09
Channel 263 & 264	General Public Safety Services (secondary trunked)	7GTAC11
Channel 39 & 40	Calling Channel	7CALLA
Channel 119 & 120	General Public Safety Service	7GTAC13
Channel 199 & 200	General Public Safety Service	7GTAC15
Channel 279 & 280	General Public Safety Service ( Data only )	7DTAC17
Channel 63 & 64	Emergency Medical Service	7ETAC19
Channel 143 & 144	Fire Service	7FTAC21
Channel 223 & 224	Law Enforcement	7LTAC23
Channel 303 & 304	Mobile Repeater	7MTAC25
<b>Channel 79 &amp; 80</b>	<b>Emergency Medical Service</b>	<b>7ETAC27</b>
<b>Channel 159 &amp; 160</b>	<b>Fire Service</b>	<b>7FTAC29</b>
<b>Channel 239 &amp; 240</b>	<b>Law Enforcement</b>	<b>7LTAC31</b>
<b>Channel 319 &amp; 320</b>	<b>Other Public Services</b>	<b>7OTAC33</b>

Trunking is permitted on the 4 channel sets indicated in bold italics. The two channels immediately below each of these channels are reserve channels that may be combined with these channels for trunking systems that use 25 kHz channel bandwidth.

1. Channel nomenclature and reserving specific channels for first responders, (EMS, Fire, Law Enforcement) are subjects of Petitions for Reconsideration to the 4th Report & Order in Docket 98-86. While these Petitions were denied by the FCC for codification into its rules, the FCC nonetheless recognized the importance of such Standardization if it was implemented at the State and / or Regional Level.
2. Tactical channel numbering was started at "5" to avoid confusion with TAC 1 through TAC 4 in the 800 MHz NPSPAC Band.
3. Only ANSI/TIA/EIA 102 (Project 25) data standard compliant equipment is permitted to use the data channels.

Television Channels 68/ 69

Note: Only Base Transmit Side of Channel Pairs is Shown

CHANNEL SETS	DESCRIPTION	LABEL
Channel 681 & 682	General Public Safety Services (secondary trunked)	7GTAC35
Channel 737 & 738	General Public Safety Services (secondary trunked)	7GTAC37
Channel 817 & 818	General Public Safety Services (secondary trunked)	7GTAC39
Channel 921 & 922	General Public Safety Services (secondary trunked)	7GTAC41
Channel 681 & 682	Calling Channel	7CALLB
Channel 761 & 762	General Public Safety Service	7GTAC43
<b><i>Channel 841 &amp; 842</i></b>	<b><i>General Public Safety Service</i></b>	<b><i>7GTAC45</i></b>
Channel 921 & 922	General Public Safety Service ( Data only )	7DTAC47
Channel 641 & 642	Emergency Medical Service	7ETAC49
Channel 721 & 722	Fire Service	7FTAC51
Channel 801 & 802	Law Enforcement	7LTAC53
Channel 881 & 882	Mobile Repeater	7MTAC55
<b><i>Channel 697 &amp; 698</i></b>	<b><i>Emergency Medical Service</i></b>	<b><i>7ETAC57</i></b>
<b><i>Channel 777 &amp; 778</i></b>	<b><i>Fire Service</i></b>	<b><i>7FTAC59</i></b>
<b><i>Channel 857 &amp; 858</i></b>	<b><i>Law Enforcement</i></b>	<b><i>7LTAC61</i></b>
Channel 937 & 938	Other Public Services	7OTAC63

Trunking is permitted on the 4 channel sets indicated in bold italics. The two channels immediately above each of these channels are reserve channels that may be combined with these channels for trunking systems that use 25 kHz channel bandwidth.

**6.1.2 General Access R(24) Channels (previously known as reserve pool channels)**

Region 41 will utilize the former Reserve channels that were added to the General Use pool and repurpose them as recommended by the FCC in Report and Order 14-172 Dated October 24, 2014.

Region 41 will utilize the following channel plan for the former Reserve Channels:

Region 41 will add six channels: 37-38, 61-62, 117-118, 141-142, 883-884, and 939-940 to be utilized as Nationwide Deployable Trunked Channels consistent with the NPSTC/NRPC

recommendation to the FCC utilizing the recommended system and unit identifiers from NPSTC/NRPC.

The remaining eighteen channels will be utilized as “floating allotments” to supplement the existing General Use allotments in the region. Channels 77-78, 157-158, 197-198, 221-222, 237-238, 277-278, 301-302, 317-318, 643-644, 683-684, 699-700, 723-724, 763-764, 779-780, 803-804, 843-844, 859-860, and 923-924 will be utilized to promote maximum flexibility of channel use within the region.

Established coordination protocols within Region 41 and with adjacent regions will be utilized with these new, flexible General Use allotments as required in the Region 41 plan.

<b>FCC Channel</b>	<b>CAPRAD Channel Label</b>	<b>Base Frequency</b>	<b>Mobile Frequency</b>	<b>Status</b>
37-38	General Use-D	769.231250	799.231250	Nationwide Deployable Use
61-62	General Use-D	769.381250	799.381250	Nationwide Deployable Use
77-78	General Use	769.481250	799.481250	Available
117-118	General Use-D	769.731250	799.731250	Nationwide Deployable Use
141-142	General Use-D	769.881250	799.881250	Nationwide Deployable Use
157-158	General Use	769.981250	799.981250	Available
197-198	General Use	770.231250	800.231250	Available
221-222	General Use	770.381250	800.381250	Available
237-238	General Use	770.481250	800.481250	Available
277-278	General Use	770.731250	800.731250	Available
301-302	General Use	770.881250	800.881250	Available
317-318	General Use	770.981250	800.981250	Available
643-644	General Use	773.018750	803.018750	Available
683-684	General Use	773.268750	803.268750	Available
699-700	General Use	773.368750	803.368750	Available
723-724	General Use	773.518750	803.518750	Available
763-764	General Use	773.768750	803.768750	Available
779-780	General Use	773.868750	803.868750	Available
803-804	General Use	774.018750	804.018750	Available
843-844	General Use	774.268750	804.268750	Available
859-860	General Use	774.368750	804.368750	Available
883-884	General Use-D	774.518750	804.518750	Nationwide Deployable Use (Pri CC)**
923-924	General Use	774.768750	804.768750	Available
939-940	General Use-D	774.868750	804.868750	Nationwide Deployable Use (Alt CC)**

### 6.1.3 Air to Ground (previously known as secondary trunked channels)

The FCC re-designated the 700 MHz Secondary Trunked channels and reserved them for specific Air to Ground communications in Report and Order 14-172 Dated October 24, 2014. These channels are the most suitable for communications between low-altitude aircraft and associated ground stations as they have no incumbents and little risk to co-channel interference. The eight 12.5 KHz Air to Ground channels are listed below:

FCC Channel	Base	Mobile	Status
21-22	769.131250	799.131250	Available
101-102	769.631250	799.631250	Available
181-182	770.131250	800.131250	Available
261-262	770.631250	800.631250	Available
659-660	773.118750	803.118750	Available
739-740	773.618750	803.618750	Available
819-820	774.118750	804.118750	Available
899-900	774.618750	804.618750	Available

As per Report and Order 14-172, the FCC adopted a two (2) watt ERP limit for the use of these channels along with restricting airborne use of these channels to altitudes below 1500 feet Above Ground Level (AGL). The FCC assigned the responsibility for coordinating these channels to each state. The State of Utah has assigned the responsibility for coordinating these channels to the Utah Communications Authority, an independent state agency, through Utah Code, Title 63H, Chapter 7a with an effective date of 1 July 2014.

## 6.2 Tactical Channels

Region 41 will not set-aside additional tactical channels for interoperability. We feel that the sixty-four channels set aside by the FCC will be sufficient to provide interoperability for Voice and Data within Region 41. Agencies who desire to utilize the 700 spectrum will need to include as a minimum the channels called for in the NCC guidelines.

## 6.3 Encryption

The use of encryption will be prohibited on calling channels and all other interoperability channels. A standard encryption algorithm for use on interoperability channels must be TIA/EIA IS AAAAA Project 25 DES encryption protocol. Information on encryption may be found in 90.553 of the CRF.

## 6.4 Deployable Systems

General Public Safety Services channels labeled 7GTAC5 through 7GTAC15, 7GTAC35 through 7GTAC45, or both, shall be made available for “deployable” equipment used during disasters and other emergency events that place a heavy, unplanned burden upon in-place radio systems. The RPC shall consider the need for both “deployable trunked” and “deployable conventional” systems and make those channels available to all entities in the state.

## 6.5 Trunking on the Interoperability Channels

Trunking the interoperability channels on a secondary basis shall be limited to operation on eight specific 12.5 kHz channel sets, divided into two subsets of four 12.5 kHz channels. One subset is defined by 7ETAC27 through 7OTAC33 and the other by 7GTAC45 and 7ETAC57 through 7LTAC61. Any licensee implementing base station operation a trunking mode on interoperability channels shall provide and maintain on a continuous (24 hour x 7 day) basis as its primary dispatch facility the capability to easily remove one or more of these interoperability channels, up to the maximum number of such trunking channels implemented, from trunking operation when a conventional access priority that is equal to or higher than their current priority is implemented.

While it may be desirable for the RPC to permit trunked systems to incorporate one or more interoperability channels into a single trunking system as a means of enhancing the use of the systems interoperability purposes (and by implication allow those channels to be routinely used for normal day-to-day communications), care will be taken to ensure that those channels will not become such an integral part of the trunked system that it becomes politically and technically impossible to extract them from the trunked system in the event of an emergency event having higher priority. For this reason the Interoperability Subcommittee recommends that the RPC limit the number of interoperability channels that may be integrated into any single trunked system for the following amounts:

For systems having 10 or fewer “general use” voice paths allocated, one (1) trunked interoperability channel is permitted. For systems having more than 10 “general use” voice paths allocated, two (2) trunked interoperability channel sets are permitted.

Region 41 may consider allocating additional interoperability channel set(s) for trunked radio systems having more than 20 “general use” voice paths allocated upon a showing of need and upon a determination that assignments of interoperability channel set(s) will not adversely impact availability of those channels to other trunked and / or conventional radio systems in the area (e.g. a single consolidated trunked system servicing all public safety agencies in an area might satisfy this criterion). The maximum number of interoperability channel sets for trunked system permitted for use by an individual licensee is four.

The channels (two 6.25 kHz pairs) in reserve spectrum immediately adjacent to the above designated interoperability channels (77,78), (157, 158) etc. are available for secondary trunking, but only in conjunction with the adjacent interoperability 12.5 kHz channel pair in a 25 kHz trunked system and will be administered by the Region 41. If Region 41 should elect to permit 25 kHz trunking on interoperability channels, these reserve spectrum guard

channels would become part of the trunking channels. In making a decision to allow 25 kHz trunking on these interoperability channels, Region 41 will consider the impact on the channels adjacent to those 25 kHz trunking channels. Additionally the Region 41 will consider the impact of these 25 kHz channels to be immediately reverted to 12.5 kHz conventional interoperability use.

## **6.6 Standard Operating Procedures on the Trunking I/O Channels for I/O Situations Above Level 4**

The safety and security of life and property determines appropriate interoperable priorities of access and/or reverting from secondary trunking to conventional operation.

In the event secondary trunked access conflicts with conventional access for the same priority, conventional access shall take precedence. Access priority for “mission critical” communications (shall not include nor imply administrative or non mission critical applications) is recommended as follows:

1. Disaster and extreme emergency operations for mutual aid and interagency Communications;
2. Emergency or urgent operation involving imminent danger to life or property;
3. Special event control, generally of a preplanned nature (including Task Force operations);
4. Single agency secondary communications. Priority 4 is the default priority when no higher priority has been declared. The fourth priority would not allow shedding traffic long in duration or overloading the non-interoperable system; but is not “two or more different entities” as defined in paragraph 76 of FCC 98-191.

For those systems employing I/O channels in the trunked mode, the RPC will set up interoperability talk groups and priority levels for those talk groups so that it is easy for dispatch to determine whether the trunked I/O conversation in progress has priority over the requested conventional I/O use. The Region 41 must also determine whether a wide- area I/O conversation has priority over a local conversation.

## **6.7 Standardized Nomenclature**

Region 41 will support standardized nomenclature as recommended nationwide such that all 700 MHz public safety equipment using an alphanumeric display only be permitted to show the recommended label as identified in the Table of Interoperability Channels, when the radio is programmed to operate on the associated 700 MHz channel set. The table shows the recommended label for equipment operating in the mobile relay (repeater) mode. When operating in the direct (simplex) mode, the letter “D” appended to the end of the label will be used.

## **6.8 Data Only Use of the I/O Channels**

Narrowband data-only interoperability operation on the interoperability channels on a secondary basis will be limited to two specific 12.5 kHz channel sets. One set is defined by 7DTAC17 and the other by 7DTAC47. Refer to 90.548(a)(ii) for data interoperability standard documents.

## **6.9 Wideband Data Standards**

Within the 12 MHz of spectrum designated for high capacity, wide bandwidth (50 to 150 kHz) channel usage, there are eighteen 50 kHz (or six 150 kHz) channels designated for wideband interoperability use. Region 41 will recommend that the established TIA standard (the Telecommunications Industry Association), as noted in Section 11.0 for wideband data be used when deploying the wideband interoperability channels.

## **6.10 State Interoperability Executive Committees**

The Office of Statewide Interoperability Coordinator was created within the Utah Communications Authority through Utah Code, Title 63H, Chapter 7a with an effective date of 1 July 2014. The State of Utah has assigned the responsibility to administer the 700 MHz interoperability channels to the Statewide Interoperability Coordinator Office within the Utah Communications Authority. The Office of Statewide Interoperability Coordinator will use the Incident Command System (NIMS) as the guideline in developing the regional interoperability plan.

## **6.11 Minimal Channel Quantities**

The minimum channel quantity for Calling and tactical channel sets requires 8 I/O channel slots in each subscriber unit. Including direct (simplex) mode on these channel sets, up to 16 slots in each radio will be programmed to the I/O purpose. Backbone issues are deferred to the RPC. Subscriber units, which routinely roam through more than one jurisdiction up to nationwide travel will require more than the minimum channel quantity.

The Calling channel sets (7CALLA and 7CALLB) shall be implemented in all voice subscriber units in repeat-mode and direct (simplex) mode. “Direct” mode will be permitted in the absence of repeater operation or upon prior dispatch center coordination. If a local Calling channel set is not known, 7CALLA shall be attempted first, then 7CALLB. Attempts shall be made on the repeater mode first then on the direct (simplex) mode.

A minimum set of Tactical (TAC) channels shall be implemented in every voice subscriber unit in the direct (simplex) mode. Specific channel set shown below (RPC will have the option to exceed this minimum requirement).

- 7GTAC13 & 7GTAC43 channel sets
- 7MTAC25 & 7MTAC55 channel sets
- 7OTAC33 & 7OTAC63 channel sets

NOTE: Selection of the above TAC channels based on revised Table of Interoperability Channels. Channel labels are a compromise between 4<sup>th</sup> R & O and IO-0062D-20010118.

Voice subscriber units subject to multi-jurisdictional or nationwide roaming should have all I/O voice channels, including direct (simplex) mode, programmed for use.

## 6.12 Direct (Simplex) Mode

In direct (simplex) mode, transmitting and receiving on the output (transmit) side of the repeater pair for subscriber unit-to-subscriber unit communications at the scene does not congest the repeater station with unnecessary traffic. However, should someone need the repeater to communicate with the party who is in “direct” mode, the party would hear the repeated message, switch back to the repeater channel, and join the communications. Therefore, operating in direct (simplex) mode shall only be permitted on the repeater output side of the voice I/O channel set.

## 6.13 Common Channel Access Parameters

Common channel access parameters will provide uniform I/O communications regardless of jurisdiction, system, manufacture, etc. Thus, the Calling and TAC channels (all of them) will include a common NAC as the national standard. The secondary, trunked I/O channels would be excluded in the trunked mode. However, when reverted to conventional I/O, the common NAC would then apply. The national requirement should apply to base stations and subscriber units. This should apply to fixed or temporary operations. This should apply to tactical, or other mutual aid conventional I/O use.

Common channel access parameters for all voice I/O shall utilize the default values (ANSI/TIA/EIA-102, BAAX-2000, approved April 25,2000) provided in every radio regardless of manufacturer. Any common channel access parameters not provided will be programmed accordingly. These parameters include the following:

- P25 Network Access Code --\$293 (default value)
- P25 Manufacturing ID--\$00 (default value)
- P25 Designation ID --\$FFFFFF (designates everyone)
- P25 Talk Group ID --\$0001 (default value)
- P25 Message Indicator \$000000...0, out to 24 zeros (unencrypted)
- P25 Key ID -- \$0000 (default value)
- P25 Algorithm ID --\$80 (unencrypted)

Any deviation from \$293 will not be permitted unless the RPC can demonstrate in a plan amendment through the FCC –approved process that the intent of \$293 will be preserved on all conventional voice I/O channels-Transmit and receive.

## 7.0 Interference Protection

The frequency allotment list is based on an assumption that the systems will be engineered on an interference-limited basis not a noise floor-limited basis. Agencies are expected to design their systems for maximum signal levels within their coverage area and minimum levels in the coverage area of other co-channel users. Coverage area is normally the geographical boundaries of the Agency(s) served plus an eight-mile area beyond. Systems should be designed for a minimum signal strength of 40 dB $\mu$  in the system coverage area while minimizing signal power out of the

coverage area. TIA/EIA TSB88-B (or latest version) will be used to determine harmful interference assuming 40 dB $\mu$ , or greater, signal in all systems coverage areas. This may require patterned antennas and extra sites compared to a design that assumes noise limited coverage. To maximize spectrum utilization, receivers of the highest quality must be used in systems. Given a choice of radios to choose from in a given technology family, agencies should use the units with the best specifications. This **plan will not protect** agencies from interference if their systems utilize low quality receivers.

## 8.0 Allocation of Narrowband “General Use” Spectrum

Channel allotments will be made on the basis of one 25 KHz channel for every two (2) voice channel requests and one 12.5 KHz channel for each narrowband data channel request. Allotments will be made in 25 KHz groups to allow for various digital technologies to be implemented. Agencies using Frequency Division Multiplexing (FDMA) will be expected to maintain 12.5 KHz equivalency when developing systems and will be required to utilize BOTH 12.5 KHz portions of the 25 KHz block. In most cases, this will require the geographic separation of each 12.5 KHz adjacent channel. In order to promote spectrum efficiency, Region 41 will ensure that systems allocated 25 KHz channel blocks will utilize the entire channel and not “orphan” any portions of a system designated channel.

### 8.1 Low Power Secondary Operations

To facilitate portable operation by any licensee, and to provide channels for such operation without impacting the use of primary channels, certain low power secondary use will be permitted. Any public safety entity otherwise licensed to use one or more channels under this Plan may receive authorization to license any additional channel for secondary use, subject to the following criteria:

- All operation of units on such authorized channels will be considered secondary to other licensees on both co-channel and adjacent channels.
- No channels on, or adjacent to, those designated in the Plan for wide area operation and/or mutual aid use will be authorized.
- Channels will be authorized for use in specific areas only, such areas to be within the licensees authorized operational area.
- Maximum power will be limited to 6 watts ERP.
- Use aboard aircraft is prohibited.
- Applications for channels may be submitted to the Review and Revision Committee for consideration at any time and must be accompanied by a showing of need. The Committee may select and authorize licensing of these secondary use channels after consideration of potential interference to co-channel and adjacent channel allotments, allocations and licensees. Authorization may be granted for use of any suitable channel, without prior allotment or allocation to the requesting agency.

- In the event the channels authorized for low power secondary operation are needed by others during any window opening for reassignment, no protection will be afforded to the licensed secondary user, and they may be required to change frequencies or surrender licenses to prevent interference to primary use channels.

## 8.2 Low Power Channels

The FCC in the 700 MHz band plan set aside channels 1 - 8 paired with 961 – 968 and 949 – 958 paired with 1909 – 1918 for low power use for on-scene incident response purposes using mobiles and portables subject to Commission-approved regional planning committee regional plans. Transmitter power must not exceed 2 watts (ERP). Channels 9 – 12 paired with 969 – 972 and 959 – 960 paired with 1919 – 1920 are licensed nationwide for itinerant operation. Transmitter power must not exceed 2 watts (ERP).

These channels may operate using analog operation. To facilitate analog modulation this plan will allow aggregation of two channels for 12.5 kHz bandwidth. On scene temporary base and mobile relay stations are allowed (to the extent FCC rules allow) with an antenna height limit of 6.1 meter (20 feet) above the ground. However, users are encouraged to operate in simplex mode whenever possible. This plan does not limit use to only analog operations, these channels are intended for use in a wide variety of applications that may require digital modulation types.

In its dialog leading up to CFR §90.531 allocating the twenty-four low power 6.25 kHz frequency pairs (of which eighteen fall under RPC jurisdiction)<sup>3</sup>, the Federal Communications Commission (FCC) suggested that there is a potential for multiple low power applications, and absent a compelling showing, a sharing approach be employed rather than making exclusive assignments for each specific application because low power operations can co-exist [in relatively close proximity] on the same frequencies with minimal potential for interference due to the 2 watt power restriction.

Whereas advantages exist in not making assignments, the reverse is also true. If, for example, firefighters operate on a specific frequency or set of frequencies in one area, there is some logic in replicating that template throughout the region for firefighter equipment. If there are no assignments, such a replication is unlikely. In seeking the middle ground with positive attributes showing up both for assignments and no assignments, we recommend the following regarding assignments associated with the eighteen narrowband channels for which the RPC's have responsibility.

- Channel #'s 1-4 and 949-952 are set aside as *generic* channels for use by public safety agencies operating within Region 41, and the complementary channel #'s 961-964 and 1909-1912 are set aside as *generic* channels also for use by public safety agencies including GPS differential correction telemetry for channels 961- 964 and 1909-1912 likewise operating within Region 41.
- Channel #'s 5-8 are designated as *Fire Protection* channels for licensing and exclusive use by the Fire Protection discipline, and the complementary channel #'s 965-968 are set aside as *Law Enforcement* channels also for licensing and exclusive use by the Law Enforcement discipline.

- Channel #'s 955-956 are set aside as *Fire Protection* channels for licensing and exclusive use by the Fire Protection discipline, and the complementary channel #'s 1915-1916 are set aside as *Law Enforcement* channels also for licensing and exclusive use by the Law Enforcement discipline. Channel #'s 957-958 are set aside as *Fire Protection/Law Enforcement* channels for licensing and use by the Fire Protection and Law Enforcement disciplines, and the complementary channel #'s 1917-1918 are set aside as *Fire Protection/Law Enforcement* Simplex operations may occur on either the base or mobile channels. Users are cautioned to coordinate on scene use among all agencies involved. Users should license multiple channels and be prepared to operate on alternate channels at any given operational area.

### **8.3 System Implementation**

Most areas in Utah will not be affected by interference potential from existing television stations operating in the 700 MHz spectrum. Areas within Region 41 wherein existing television station, and translator, operations present interference potential are - Cache County, Sevier County, Millard County, Summit County, Salt Lake County, Tooele County and Washington County.

Areas in Utah where existing television stations, and translators, are in operation will be precluded from immediately implementing systems due to protection requirements of existing television stations. These stations may not move until year 2007, or after, depending on the 85% market penetration of digital TV implementation. Every effort will be made to work with existing television station operators to implement systems on available spectrum resources without TV signal interference.

After allocation of channels (Section 5.2) the agency must release a System RFP and sign a contract with a vendor within one year of the channel allocation. For the State of Utah, implementation of general use channels shall be governed by FCC rule 90.529(b) and (c). If an agency does not implement in the timeframes specified, that agency's allotment may be removed from the allotment list. An Agency may file a request with the Region Chair for an extension of time to implement. The request should include all details describing why the agency has not implemented and a new implementation schedule. The Committee Chair will advertise this request and set a date for the full committee to vote on the request. If no request for extension is received or the Committee votes not to extend implementation, the Committee Chair will advertise this action and set a filing window to give other agencies a chance to request an allotment of that spectrum.

### **8.4 Priority for Receiving Spectrum Allocations**

Priority for channel allocations will be made on a first come first served basis. Cooperative multi-agency system implementations will be given priority over non-shared single agency systems.

### **8.5 Priority Matrix**

In the event that future spectrum requests conflict and cannot all be accommodated, the following matrix will be used to determine priority for allotment. This matrix will only be used if two requests are received in the same time frame. Otherwise, the first come first served procedure of Section 5.2 will be used.

- Priority is given to users fundamentally involved with the protection of life and Property
- Priority is given to shared multi-agency systems. These systems can be either groups of separate departments within a large agency or groups of agencies operating together under a large blanket agency.
- Immediate documented funding must be available to construct the system using these 700 MHz frequencies. This process, if required will be treated as a dispute and the procedures outlined in Section 5.4 using the above criteria will be used to allot the frequencies.

## **9.0 Coordination with Adjacent Regions**

The Chair will send final draft copies of this plan to the conveners or Chair, as appropriate, to each adjacent region. Over half of the total General Use narrowband channels will be available to adjacent regions. Excepting the Las Vegas, Nevada, area, the border regions are sparsely populated and generally the NPSPAC 821/866 MHz band frequencies have not built out. It is anticipated that this will be true of the 700 channels. Therefore, adjacent regions should be able to satisfy voice and narrowband data requests along their border areas with Region 41. If Nevada has problems satisfying requests in the Las Vegas area, the Utah RPC pledges to work with Nevada or any of the other surrounding regions to resolve any issues on a case by case basis. Interregional coordination and disputes are located in Appendix E.

## **10.0 Spectrum Utilization**

In the high population density areas of Utah, including the Wasatch Front, Cache, and Washington Counties, VHF/UHF spectrum is chronically short to support all needs. Utah Communications Agency Network (UCAN) serves virtually all public safety agencies along the Wasatch Front with voice communications in the 800 MHz NPSPAC spectrum, but does not currently provide service to Cache, and Washington Counties. Requirements for mobile data operations in the populated areas of Utah cannot be met using VHF/UHF, and/or 800 MHz NPSPAC spectrum resources.

With this plan, public safety providers are striving to utilize available spectrum as efficiently as possible. The implementation and technology subcommittee recommended that allotments be made on the basis of one 6.25 kHz channel for each voice channel request and four 6.25 kHz channels for each narrowband data channel request. This recommendation was approved by the full Committee and is part of this plan. The committee believes this plan conforms to the FCC's intent to require use of technology that yields one voice path for each 6.25 kHz of spectrum.

Due to existing television and HDTV assignments, some areas in Utah can use this spectrum only on a limited basis until HDTV implementation is completed. This may be sooner or later than 2007. Given this uncertainty, this plan does not limit an agency from initially implementing (if it conforms to FCC rules) a technology that yields less than one voice channel per 6.25 kHz channel or aggregating narrowband data into 25 kHz blocks. The agencies are on notice that they will not receive additional allotments due to using technology that yields less than one voice channel per 6.25 kHz of spectrum or narrowband data of less than 19.2 kbps per 12.5 kHz of spectrum.

## **11.0 Wideband Data**

Forty-eight wideband data channel pairs are available in the General Use allocation provided by the FCC. This represents 96 total channels, 48 base transmit channels and 48 mobile transmit channels. These channels are 50 kHz each, but may be aggregated to 150 kHz. Certain throughput requirements must be met when channels are combined. It is the intent of the plan to encourage multiple agencies to join together in designing and implementing mobile data systems. Pre-allocation of frequencies may result in too few frequencies being allocated to areas of the region which require multiple frequencies, and too many frequencies being allocated to areas of the region which may never use them. The Telecommunications Industry Association (TIA) is working on a wideband data standard TIA 902-SAM. While TIA has not completed work on the interoperability standard, Region 41 will give priority allocations to users who plan to use the completed standard. Knowledge of the throughput and other technical details of the interoperability standard would assist the regional planning committee in allocating the wideband channels.

Based on the limited number of channels available, Region 41 will withhold any pre-allocation of the wideband data channels until further study and needs assessments are completed and until TIA issues directives on standards related to these channels.

The committee will continue to monitor the progress of the issues mentioned above and would recommend submitting an amended plan to the commission at some time in the future.

### **11.1 Allocation**

Once the region is ready to allocate wideband data channels, Region 41 will take the following action: Entities/agencies could apply for wideband data channels which would be assigned on a first come first served basis. Entities applying for channels would be required to provide a detailed description of their wireless project, including shared agency agreements, and evidence that a budget for their project is in place, and a detailed time frame for completion of the project phase(s). Budget documentation should cover all phases of the project. Frequencies assigned would be subject to recall if agencies do not use the channels within an allotted time frame. Recalled channels would then be available in the reserve pool.

Additional requirements for application, including engineering studies, would be similar to those in place for the narrowband General Use channels.

Frequencies in the wideband data range would be managed with other frequencies in the 700 MHz band using the CAPRAD database.

## **12.0 A Certification by the Regional Planning Chairperson that all planning committee Meetings including sub-committee or executive meetings were open to the public.**

As Regional Planning Chairperson for Region 41 which comprises the state of Utah and its 29 counties and associated cities, I certify that all region 41 meetings were held in public buildings with a minimum of 30 days notice given to associations, counties, state agencies, local government, and tribal associations. In order to insure that all those who qualify to use this spectrum, meetings were planned and held in the following locations over a 12 month period:

**Organizational Meeting:** November 21, 2003 @ Valley Emergency Communications Center in Salt Lake City, Utah.

**Meeting 2:** January 16, 2004 @ the Department of Public Safety Complex in Salt Lake City, Utah, with teleconference facilities.

**Meeting 3:** March 5, 2004 at the City of Logan Public Safety Center in Logan, Utah.

**Meeting 4:** April 23, 2004 at the Utah Department of Transportation Building in Price, Utah with Teleconference and video facilities to Richfield, Logan, Salt Lake City and St. George, Utah.

**Meeting 5:** June 11, 2004 at the Department of Workforce Services in Moab Utah with teleconference facilities to Salt Lake City, Utah.

**Meeting 6:** August 27, 2004 at the Weber County Sheriff's Office in Ogden, Utah.

**Meeting 7:** September 24, 2004 at the Alternate Site in Richfield, Utah with teleconference facilities to Salt Lake City and Logan, Utah.

**Meeting 8:** November 30, 2004 at the Calvin Rampton Complex in Salt Lake City, Utah with teleconference facilities to Logan, Richfield, and San Juan County, Utah.

**Meeting 9:** February 18, 2005 at the Valley Emergency Communications Center in Salt Lake City, Utah, with teleconference facilities.

**Meeting 10:** April 1, 2005 at the Salt Lake City Information Technology Building located at 349 South 200 East, Salt Lake City, Utah.

(Minutes are located in Appendix E)

## **13.0 Adjacent Region Coordination**

Upon completion of the Final Draft of the Region 41 Plan, the chairman will send copies of the plan to the adjacent regions chairperson. Since we are utilizing the CAPRAD allocation of channels, Utah and the adjacent regions should be able to satisfy all border requests in conjunction with other regions. If any adjacent region has issues with providing the requests in their area,

Region 41 pledges to work with that area to resolve any concerns. Since the majority of the border regions to Utah are very rural, there appears to be little concern.

# Region 41 700 MHz Plan

## APPENDICIES

### Appendix A: Plan Revision History

Revision	Date	Description
1.0	04/30/04	Skeletal Outline of Sections including table of Contents and some general text. Each section has notes referring to the sub-committee responsible for the content of that section.
1.1	11/26/04	Addition of descriptions to Notification, Regional Description, Interoperability, Frequency assignments of General use Spectrum added by Steve Proctor (contributions by Randy Auman).
1.2	11/29/03	Addition of Mobile Data Portion added by Steve Proctor (contribution submitted by Brian Low).
1.3	02/15/05	Additions of New chart of frequencies submitted by Boyd Webb, deleting the original frequency chart (Appendix D). Addition of the Interoperability information submitted by Floyd Ritter (Section 6).
1.4	02/17/05	Grammatical and format changes in preparation for February 18, 2005 meeting submitted by many input by Steve Proctor.
1.5	02/17/05	Revisions from the Committee Meeting held February 18, 2005 added by Steve Proctor.
1.6	03/02/05	Revisions written by Boyd Webb added into plan by Steve Proctor.
1.7	04/18/05	Grammatical and format changes for Final Version by Steve Proctor per input from the April RPC meeting.
1.8	05/01/05	Grammatical and format changes - additions of meeting minutes and interregional coordination procedures.
2.0	12/11/2015	Additions due to changes in FCC rules in accordance with Report and Order 14-172 Dated 24 October 2014 added by Harold Clements.

**Appendix B:**

Utah Region 41 700 MHz Committee By-Laws approved December 2015

**UTAH-REGION 41**  
**UTAH REGIONAL PLANNING COMMITTEE**  
**(URPC)**

Approved December 2015

## BY-LAWS

### ARTICLE 1 NAME & PURPOSE

- 1.1 The name of this organization shall be the **UTAH REGIONAL PLANNING COMMITTEE (URPC)**. The purpose of this organization shall be the fostering of cooperation among all interested parties; the equitable planning, development, distribution and implementation of the regions plans with respect to the allocation and use of the 700 MHz Public Safety Frequency Band. This process is open to all state, county, city, tribal and other political subdivisions that are formed and operating in the state of Utah.

### ARTICLE II MEMBERS

For purposes of this Article, the term “**member,**” unless otherwise specified, refers to both voting and non-voting members.

- 2.1 **Qualification:** The UPRC shall have two classes of members, “voting members” and “non-voting members”.

Voting Members: Voting members shall consist of one representative from any entity engaged in public safety operations and communications, and who are eligible to hold a license under Federal Communications Commission Rules part 47 CFR 90.523. The term entity as used herein means any Town, City, County, Indian Nation, the State and its political subdivisions within the boundaries of Region 41, in accordance with CFR 47 90.523 (a) or Non-governmental Organization (NGO) in accordance with CFR 47 90.523 (b). In voting on any issue, representatives must identify themselves and the eligible entity or entities they represent.

Eligible entities may submit requests for voting membership to the Secretary at any time. All requests for voting membership, whether made during or outside of scheduled meetings of the URPC, must include written certification of eligibility. Each eligible entity may certify one representative. A representative may represent more than one eligible entity, but must have written documentation that he or she does represent multiple departments or divisions. Formal approval of an entity membership will be held at the next meeting of the Regional Planning Committee.

Non-Voting Members: Non-voting members are all other interested parties which are dedicated to furthering the goals of public safety communications. Entities not eligible for voting membership may submit requests for non-voting membership to the Secretary at any time. New non-voting members may be added only by action of a majority of the Executive Committee, either by Vote or by Writing.

- 2.2 **Tenure:** In general, each member shall hold membership from the date of acceptance until resignation or removal. New members may be added by application as needed.
- 2.3 **Powers and Rights:** In addition to such powers and rights as are vested in them by law, or these bylaws, the members shall have such other powers and rights as the membership may determine.
- 2.4 **Suspension and Removal:** The representative of a member entity may be suspended or removed, with cause, by simple majority vote of a quorum of members after reasonable notice and opportunity to be heard. Failure to attend at least one general and/or subcommittee meetings held in a calendar year shall

be a specific cause for removal. The removal of a representative does not affect the entity's right to vote, but it must appoint a new representative before its vote will be counted.

- 2.5 **Resignation:** The representative of a member entity may resign by delivering written resignation to the Chairman, Vice-chairman, Treasurer or Secretary of the URPC or to a meeting of the members.

### **ARTICLE III OPERATING RULES OF THE URPC**

- 3.1 **Annual Meetings:** The annual meeting of the members shall be held in conjunction with a regularly scheduled meeting of the Utah Chapter of APCO, Inc. As a minimum, a financial statement shall be read and sub-committee reports presented. If an annual meeting is not held, a special meeting of the members may be held in its place with the same force and effect as the annual meeting. Any such special meeting shall be called and notice shall be given as provided in Section 3.2 A

- 3.2 **Special Meetings:** Special meetings of the members may be held at any time and at any place within the Regional Committee area. Special meetings of the members may be called by the chairman or by the vice-chairman, or in case of death, absence, and incapacity, by any other officer or, upon written application of two or more members.

*\*Teleconferencing and videoconferencing are authorized when using a technology that allows all participants to hear each other at the same time and in the case of videoconferencing to see each other as well. The entity requesting such a meeting shall provide the needed facilities and costs of those facilities.*

A. **Call and Notice:**

1. Reasonable notice of the time and place of special meetings of the members shall be given to each member. Such notice need not specify the purposes of a meeting, unless otherwise required by law or these bylaws or unless there is to be considered at the meeting (i) amendments to these bylaws, (ii) an increase or decrease in the number of members, or (iii) removal or suspension of a member who is an officer.
  2. Reasonable and sufficient notice. It shall be reasonable and sufficient notice to a member, if sent by mail at least five business days or by e-mail/facsimile at least three business days prior to the meeting. Notice shall be addressed to a member at his or her usual or last known business address, or, to give notice to such member in person or by telephone at least three days before the meeting. Members are required to keep the Secretary informed of current contact information including telephone, address and e-mail if available.
- 3.3 **Quorum:** At any meeting of the URPC, a simple majority (including a minimum of two officers) of the voting members shall constitute a quorum. Generally, a simple majority vote of a quorum shall be sufficient to decide questions put to the voting membership, except in cases of Action by Writing.
- 3.4 **Action by Vote:** Each voting member shall have one vote; non-voting members have no right to vote. At meetings of the URPC, a simple majority of the votes properly cast by a quorum of voting members shall decide any question, including election to any office.
- 3.5 **Action by Writing:** Any action required or permitted to be taken at any meeting of the members may be taken without a meeting if a simple majority of all members entitled to vote on the matter consent to the action in writing and the written consents are filed with the records of the meetings of the members. Such consents shall be treated for all purposes as a vote at a meeting.

3.6 **Proxies:** Voting members may vote either in person or by written proxy dated not more than one month before the named meeting. Proxies shall be filed with the secretary or other person responsible for recording the proceedings of the meeting.

3.7 **Voting on Frequency Applications:** At no time can a voting member vote on his/her application.

3.8 **Executive Committee:** The executive committee shall consist of the current Chairperson, Vice-Chairperson, Treasurer and Secretary. Subcommittee Chairpersons may be asked to attend such meetings as needed.

3.9 **Subcommittees:** Initially there shall be three (3) standing subcommittees of the URPC these include,

1. **Implementation and Technology**
2. **Interoperability**
3. **Mobile Data**
4. **4.9GHz**

Subcommittees shall be added as needed to fulfill the requirements of the URPC as determined by the Executive Committee.

3.9 **Executive and Subcommittee Voting:** The Executive Committee and Subcommittees are authorized to utilize e-mail for purposes of voting on issues related to these committees. The Chairperson of the Executive Committee and each Subcommittee is responsible for forwarding all such voting results to the Secretary within three (3) business days of such vote. All results of such voting shall be recorded and made available to all members by the Secretary within ten (10) working days of such vote.

## **ARTICLE IV OFFICERS AND AGENTS**

4.1 **Number and Qualification:** The officers of the Utah Regional Planning Committee shall consist of a Chairman, Vice-chairman, Treasurer, Secretary and such other officers, if any, as the voting members may determine. All officers must be voting members of the URPC.

4.2 **Election:** The officers shall be elected by the voting members at their first meeting and, thereafter, at the annual meeting of the members.

4.3 **Tenure:** The officers shall each hold office for a period of two years, or until he/she resigns, is removed or becomes disqualified.

4.4 **Chairman and Vice Chairman:** The Chairman shall be the chief executive officer of the Regional Committee and, subject to the control of the voting members, shall have general charge and supervision of the affairs of the Regional Committee. The Chairman shall preside at all meetings of the Regional Committee.

The Vice-chairman, if any, shall have such duties and powers, as the voting members shall determine. The Vice-chairman shall have and may exercise all the powers and duties of the chairman during the absence of the Chairman or in the event of his or her inability to act.

4.5 **Treasurer:** The Treasurer shall be the chief financial officer and the chief accounting officer of the Regional Committee. The Treasurer shall be in charge of its financial affairs, funds, and valuable papers and shall keep full and accurate records thereof.

- 4.6 **Secretary:** The Secretary shall record and maintain records of all proceedings of the members in a file or series of files. Such file or files shall be kept within the Region and shall be open at all reasonable times to the inspection of any member. Such file or files shall also contain records of all meetings and the original, or attested copies, of by-laws and names of all members and the address (including e-mail address, if available) of each. If the Secretary is absent from any meeting of members, a temporary Secretary chosen at the meeting shall exercise the duties of the Secretary at the meeting.
- 4.7 **Suspension or Removal:** An officer may be suspended with cause by vote of a majority of the voting members.
- 4.8 **Resignation:** An officer may resign by delivering his or her written resignation to the Chairman, Vice-chairman, Treasurer, or Secretary of the Regional Committee. Such resignation shall be effective upon receipt (unless specified to be effective at some other time), and acceptance thereof shall not be necessary to make it effective unless it so states.
- 4.9 **Vacancies:** If the office of any officer or subcommittee member becomes vacant, the Executive Committee Quorum may elect a successor. Each such successor shall hold office for the remainder of the term or until his or her successor is elected and qualified during the next annual Regional Planning Committee meeting.

## **ARTICLE V AMENDMENTS**

The Region 41 Plan may be altered, amended or repealed in whole or in part by vote. The voting members may, by a simple majority vote of a quorum, alter, amend, or repeal any bylaws adopted by the Utah Regional Planning Committee members or otherwise adopt, alter, amend or repeal any provision which, by FCC regulation or these bylaws, requires action by the voting members.

Any Amendment to this Plan that affects adjacent Regions must be coordinated with the affected Regions before formal notification of Plan modification is made to the FCC. Any Plan modification that affects areas within 75 miles of an adjacent Region is considered to affect the adjacent Region and require concurrence.

The FCC shall suspend any Plan amendments that require FCC notification until formal notification of Plan modification acceptance.

Plan amendments that affect areas more than 75 miles from an adjacent Region are not considered as requiring adjacent Region concurrence.

## **ARTICLE VI**

### **DISSOLUTION**

This Utah Regional Planning Committee may be dissolved by the consent of two-thirds of the voting members at a special meeting called for such purpose, at which time the FCC shall be notified.

## **ARTICLE VII**

### **RULES OF PROCEDURES**

The Conduct of Regional Meetings including, without limitation, debate and voting, shall be governed by Robert's Rules of Order, newly revised tenth edition, Sarah Corbin Robert, Henry M. Robert III, and William J. Evans.

## Appendix C: MEMBERSHIP

Name	Agency	Phone Number	E-Mail
Barry Bradley	Sanpete County	(435) 835-2191	
Bart Bailey	Washington County		
Bob Marz	APCO		<a href="mailto:marzb@apco911.org">marzb@apco911.org</a>
Brad Wilcox	Davis County SO		
Bret Mills	Emery County		
Bryan Low	Logan City PD	(435) 716-9421	<a href="mailto:blow@loganutah.org">blow@loganutah.org</a>
Carl McCormick	Motorola	(801) 573-7001	<a href="mailto:Carl.mccormick@motorola.com">Carl.mccormick@motorola.com</a>
Chad Esplin	Logan City PD		
Chief Navarre	Moab PD		
Dan Gallagher	West Jordan City		
Dave Owens	Kane County	(435) 689-0911	<a href="mailto:dowens@kane.state.ut.us">dowens@kane.state.ut.us</a>
Dave Shopay	West Valley City	(801) 963-3275	<a href="mailto:dshopay@mail.westvalleycity-ut.gov">dshopay@mail.westvalleycity-ut.gov</a>
Dean Cox	Washington County	(435) 467-3095	<a href="mailto:deanc@washersiff.net">deanc@washersiff.net</a>
Dean Wilston	Clinton PD		
Dennis Busby	M/A-Comm		
Dennis Johnson	U of U (KUED)		
Devin Calcut	State Corrections	(801) 545-5544	<a href="mailto:devin@utah.gov">devin@utah.gov</a>
Doug Squire	Grand County SO	(435) 259-8115	<a href="mailto:dsquire@grand.state.ut.us">dsquire@grand.state.ut.us</a>
Ed Frazier	Layton City		<a href="mailto:efrazier@laytoncity.org">efrazier@laytoncity.org</a>
Gary Wilson	Grand County		
Greg Harwood	Salina City PD		
Jake Hunt	UCA	(801) 840-4202	<a href="mailto:jhunt@uca911.org">jhunt@uca911.org</a>
Jeff Bassett	Bountiful Fire		<a href="mailto:jbassett@sdmetrofire.org">jbassett@sdmetrofire.org</a>
Jeff Drury	Park City	(435) 615-5253	<a href="mailto:jdrury@parkcity.org">jdrury@parkcity.org</a>
Jeff Nielsen	Sevier County SO		
Jeff Winterton	Wasatch County SO	(435) 654-1411	<a href="mailto:jwinterton@wasatchso.state.ut.us">jwinterton@wasatchso.state.ut.us</a>
Jim Masner	Millard County SO		
Jim Stewart	Utah Ed. Network	(801) 718-6500	<a href="mailto:jstewart@uen.org">jstewart@uen.org</a>
Joe Bennett	South Salt Lake PD		
Johnny Evans	Richfield PD		
Jon Tait	Motorola	(801) 571-7649	<a href="mailto:jon.tait@motorola.com">jon.tait@motorola.com</a>
Kathy Johnson	State DPS	(801) 965-4680	<a href="mailto:kjohnson@utah.gov">kjohnson@utah.gov</a>
Ken Imber	Salt Lake Airport	(801) 531-4575	<a href="mailto:Ken.imber@slc.gov">Ken.imber@slc.gov</a>
Larry Maughn	SLCC		

Lloyd Johnson	State DNR	(801) 538-7244	<a href="mailto:lloydjohnson@utah.gov">lloydjohnson@utah.gov</a>
Matt Bilodeau	Cache County SO		
Matt Mortensen	Weber County		
Melissa Mullins	Provo PD		
Michael Barfuss	Bountiful City FD		
Nancy McConnell	State ITS	(801) 538-3019	<a href="mailto:nmccConnell@utah.gov">nmccConnell@utah.gov</a>
Omar Issa	UCA	(801) 965-4890	<a href="mailto:oissa@uca911.org">oissa@uca911.org</a>
Pat Hocevar	Cisco Systems		
Paul Child	Centerville	(801) 292-8441	<a href="mailto:pechild@centerville.state.ut.us">pechild@centerville.state.ut.us</a>
Paul Pitts	Layton City		<a href="mailto:ppitts@laytoncity.org">ppitts@laytoncity.org</a>
Phil Harris	South Jordan FD	(801) 254-4708	<a href="mailto:pharris@ci.south-jordan.ut.us">pharris@ci.south-jordan.ut.us</a>
Phil Titus	KUED		
Rick Bailey	San Juan County	(435) 587-3225	<a href="mailto:rmbailey@sanjuancounty.org">rmbailey@sanjuancounty.org</a>
Robert Flowers	State DPS	(801) 965-4463	<a href="mailto:rflowers@utah.gov">rflowers@utah.gov</a>
Robert Roth	Uintah County	(435) 789-2511	<a href="mailto:rroth@co.uintah.ut.us">rroth@co.uintah.ut.us</a>
Ron Bullock	Sandy City PD		
Ron Titcomb	University of Utah		
Ryan Larkin	Washington County	(435) 656-6695	<a href="mailto:rlarkin@washerriff.net">rlarkin@washerriff.net</a>
Russ Adair	Draper PD	(801) 576-6315	<a href="mailto:russ.adair@draper.ut.us">russ.adair@draper.ut.us</a>
Scott Finlayson	Springville PD	(801) 489-9421	<a href="mailto:chief@springville.org">chief@springville.org</a>
Scott Mattson	South SLC PD	(801) 412-3690	<a href="mailto:smattson@sslc.net">smattson@sslc.net</a>
Shawn Valdez	Sunset PD		
Sherman Stebbins	St. George PD		
Spencer Cannon	Utah County SO		
Steve Cornia	American Fork Police		
Steve Whittaker	Salt Lake City		
Terry Shaw	Weber County SO		
Todd Peterson	State DPS		<a href="mailto:toddpeterson@utah.gov">toddpeterson@utah.gov</a>
Trevor Pollock	UCA	(801) 965-4582	<a href="mailto:tpollock@uca911.org">tpollock@uca911.org</a>
Vern Peterson	West Jordan PD		

## Appendix D: Chart of Frequency Assignments

County	Band	Number	Frequency	Frequency	Notation
<b>Beaver</b>					
	Voice 25KHz	53-56	764.337500	794.337500	
	Voice 25KHz	357-360	766.237500	796.237500	
	Voice 25KHz	413-416	766.587500	796.587500	
	Voice 25KHz	477-480	766.987500	796.987500	
	Voice 25KHz	533-536	773.337500	803.337500	
	Voice 25KHz	581-584	773.637500	803.637500	
	Voice 25KHz	717-720	774.487500	804.487500	
	Voice 25KHz	861-864	775.387500	805.387500	
	Voice 25KHz	901-904	775.637500	805.637500	
<b>Box Elder</b>					
	Voice 25KHz	85-88	764.537500	794.537500	
	Voice 25KHz	169-172	765.062500	795.062500	
	Voice 25KHz	257-260	765.612500	795.612500	
	Voice 25KHz	365-368	766.287500	796.287500	
	Voice 25KHz	413-416	766.587500	796.587500	
	Voice 25KHz	465-468	766.912500	796.912500	
	Voice 25KHz	505-508	773.162500	803.162500	
	Voice 25KHz	545-548	773.412500	803.412500	
	Voice 25KHz	605-608	773.787500	803.787500	
	Voice 25KHz	757-760	774.737500	804.737500	
	Voice 25KHz	873-876	775.462500	805.462500	
<b>Cache</b>					
	Voice 25KHz	17-20	764.112500	794.112500	
	Voice 25KHz	93-96	764.587500	794.587500	
	Voice 25KHz	133-136	764.837500	794.837500	
	Voice 25KHz	201-204	765.262500	795.262500	
	Voice 25KHz	249-252	765.562500	795.562500	
	Voice 25KHz	353-356	766.212500	796.212500	
	Voice 25KHz	405-408	766.537500	796.537500	
	Voice 25KHz	445-448	766.787500	796.787500	
	Voice 25KHz	513-516	773.212500	803.212500	
	Voice 25KHz	569-572	773.562500	803.562500	
	Voice 25KHz	621-624	773.887500	803.887500	
	Voice 25KHz	661-664	774.137500	804.137500	

Voice 25KHz	701-704	774.387500	804.387500
Voice 25KHz	785-788	774.912500	804.912500
Voice 25KHz	825-828	775.162500	805.162500
Voice 25KHz	865-868	775.412500	805.412500
Voice 25KHz	945-948	775.912500	805.912500

**Carbon**

Voice 25KHz	53-56	764.337500	794.337500
Voice 25KHz	93-96	764.587500	794.587500
Voice 25KHz	293-296	765.837500	795.837500
Voice 25KHz	341-344	766.137500	796.137500
Voice 25KHz	381-384	766.387500	796.387500
Voice 25KHz	537-540	773.362500	803.362500
Voice 25KHz	593-596	773.712500	803.712500
Voice 25KHz	633-636	773.962500	803.962500
Voice 25KHz	673-676	774.212500	804.212500
Voice 25KHz	785-788	774.912500	804.912500

**Daggett**

Voice 25KHz	169-172	765.062500	795.062500
Voice 25KHz	297-300	765.862500	795.862500
Voice 25KHz	353-356	766.212500	796.212500
Voice 25KHz	453-456	766.837500	796.837500
Voice 25KHz	637-640	773.987500	803.987500
Voice 25KHz	781-784	774.887500	804.887500

**Davis**

Voice 25KHz	13-16	764.087500	794.087500
Voice 25KHz	97-100	764.612500	794.612500
Voice 25KHz	137-140	764.862500	794.862500
Voice 25KHz	205-208	765.287500	795.287500
Voice 25KHz	245-248	765.537500	795.537500
Voice 25KHz	285-288	765.787500	795.787500
Voice 25KHz	357-360	766.237500	796.237500
Voice 25KHz	401-404	766.512500	796.512500
Voice 25KHz	453-456	766.837500	796.837500
Voice 25KHz	497-500	773.112500	803.112500
Voice 25KHz	537-540	773.362500	803.362500
Voice 25KHz	585-588	773.662500	803.662500
Voice 25KHz	625-628	773.912500	803.912500
Voice 25KHz	709-712	774.437500	804.437500

Voice 25KHz	781-784	774.887500	804.887500
Voice 25KHz	821-824	775.137500	805.137500
Voice 25KHz	861-864	775.387500	805.387500
Voice 25KHz	941-944	775.887500	805.887500

**Duchesne**

Voice 25KHz	41-44	764.262500	794.262500
Voice 25KHz	133-136	764.837500	794.837500
Voice 25KHz	329-332	766.062500	796.062500
Voice 25KHz	373-376	766.337500	796.337500
Voice 25KHz	429-432	766.687500	796.687500
Voice 25KHz	493-496	773.087500	803.087500
Voice 25KHz	553-556	773.462500	803.462500
Voice 25KHz	613-616	773.837500	803.837500
Voice 25KHz	825-828	775.162500	805.162500
Voice 25KHz	913-916	775.712500	805.712500

**Emery**

Voice 25KHz	177-180	765.112500	795.112500
Voice 25KHz	333-336	766.087500	796.087500
Voice 25KHz	425-428	766.662500	796.662500
Voice 25KHz	545-548	773.412500	803.412500
Voice 25KHz	585-588	773.662500	803.662500
Voice 25KHz	757-760	774.737500	804.737500
Voice 25KHz	821-824	775.137500	805.137500
Voice 25KHz	905-908	775.662500	805.662500

**Garfield**

Voice 25KHz	81-84	764.512500	794.512500
Voice 25KHz	121-124	764.762500	794.762500
Voice 25KHz	201-204	765.262500	795.262500
Voice 25KHz	281-284	765.762500	795.762500
Voice 25KHz	365-368	766.287500	796.287500
Voice 25KHz	437-440	766.737500	796.737500
Voice 25KHz	505-508	773.162500	803.162500
Voice 25KHz	549-552	773.437500	803.437500
Voice 25KHz	597-600	773.737500	803.737500
Voice 25KHz	669-672	774.187500	804.187500
Voice 25KHz	709-712	774.437500	804.437500
Voice 25KHz	753-756	774.712500	804.712500
Voice 25KHz	797-800	774.987500	804.987500

	Voice 25KHz	917-920	775.737500	805.737500
<b>Grand</b>				
	Voice 25KHz	45-48	764.287500	794.287500
	Voice 25KHz	241-244	765.512500	795.512500
	Voice 25KHz	389-392	766.437500	796.437500
	Voice 25KHz	441-444	766.762500	796.762500
	Voice 25KHz	601-604	773.762500	803.762500
	Voice 25KHz	837-840	775.237500	805.237500

<b>Iron</b>				
	Voice 25KHz	17-20	764.112500	794.112500
	Voice 25KHz	93-96	764.587500	794.587500
	Voice 25KHz	133-136	764.837500	794.837500
	Voice 25KHz	173-176	765.087500	795.087500
	Voice 25KHz	213-216	765.337500	795.337500
	Voice 25KHz	253-256	765.587500	795.587500
	Voice 25KHz	293-296	765.837500	795.837500
	Voice 25KHz	341-344	766.137500	796.137500
	Voice 25KHz	385-388	766.412500	796.412500
	Voice 25KHz	425-428	766.662500	796.662500
	Voice 25KHz	469-472	766.937500	796.937500
	Voice 25KHz	485-488	773.037500	803.037500
	Voice 25KHz	525-528	773.287500	803.287500
	Voice 25KHz	573-576	773.587500	803.587500
	Voice 25KHz	617-620	773.862500	803.862500
	Voice 25KHz	701-704	774.387500	804.387500
	Voice 25KHz	745-748	774.662500	804.662500
	Voice 25KHz	821-824	775.137500	805.137500
	Voice 25KHz	877-880	775.487500	805.487500
	Voice 25KHz	945-948	775.912500	805.912500

<b>Juab</b>				
	Voice 25KHz	209-212	765.312500	795.312500
	Voice 25KHz	393-396	766.462500	796.462500
	Voice 25KHz	433-436	766.712500	796.712500
	Voice 25KHz	533-536	773.337500	803.337500
	Voice 25KHz	577-580	773.612500	803.612500
	Voice 25KHz	901-904	775.637500	805.637500

**Kane**

Voice 25KHz	325-328	766.037500	796.037500
Voice 25KHz	393-396	766.462500	796.462500
Voice 25KHz	445-448	766.787500	796.787500
Voice 25KHz	541-544	773.387500	803.387500
Voice 25KHz	585-588	773.662500	803.662500
Voice 25KHz	637-640	773.987500	803.987500

**Millard**

Voice 25KHz	13-16	764.087500	794.087500
Voice 25KHz	85-88	764.537500	794.537500
Voice 25KHz	125-128	764.787500	794.787500
Voice 25KHz	169-172	765.062500	795.062500
Voice 25KHz	285-288	765.787500	795.787500
Voice 25KHz	325-328	766.037500	796.037500
Voice 25KHz	381-384	766.387500	796.387500
Voice 25KHz	441-444	766.762500	796.762500
Voice 25KHz	541-544	773.387500	803.387500
Voice 25KHz	589-592	773.687500	803.687500
Voice 25KHz	665-668	774.162500	804.162500
Voice 25KHz	749-752	774.687500	804.687500
Voice 25KHz	793-796	774.962500	804.962500
Voice 25KHz	833-836	775.212500	805.212500
Voice 25KHz	913-916	775.712500	805.712500

**Morgan**

Voice 25KHz	161-164	765.012500	795.012500
Voice 25KHz	325-328	766.037500	796.037500
Voice 25KHz	377-380	766.362500	796.362500
Voice 25KHz	425-428	766.662500	796.662500
Voice 25KHz	609-612	773.812500	803.812500

**Piute**

Voice 25KHz	241-244	765.512500	795.512500
Voice 25KHz	373-376	766.337500	796.337500
Voice 25KHz	457-460	766.862500	796.862500
Voice 25KHz	517-520	773.237500	803.237500
Voice 25KHz	605-608	773.787500	803.787500

**Rich**

Voice 25KHz	81-84	764.512500	794.512500
Voice 25KHz	361-364	766.262500	796.262500
Voice 25KHz	417-420	766.612500	796.612500
Voice 25KHz	533-536	773.337500	803.337500
Voice 25KHz	577-580	773.612500	803.612500

**Salt Lake**

Voice 25KHz	49-52	764.312500	794.312500
Voice 25KHz	89-92	764.562500	794.562500
Voice 25KHz	129-132	764.812500	794.812500
Voice 25KHz	173-176	765.087500	795.087500
Voice 25KHz	213-216	765.337500	795.337500
Voice 25KHz	253-256	765.587500	795.587500
Voice 25KHz	297-300	765.862500	795.862500
Voice 25KHz	337-340	766.112500	796.112500
Voice 25KHz	389-392	766.437500	796.437500
Voice 25KHz	437-440	766.737500	796.737500
Voice 25KHz	477-480	766.987500	796.987500
Voice 25KHz	489-492	773.062500	803.062500
Voice 25KHz	549-552	773.437500	803.437500
Voice 25KHz	597-600	773.737500	803.737500
Voice 25KHz	637-640	773.987500	803.987500
Voice 25KHz	677-680	774.237500	804.237500
Voice 25KHz	753-756	774.712500	804.712500
Voice 25KHz	829-832	775.187500	805.187500
Voice 25KHz	869-872	775.437500	805.437500
Voice 25KHz	909-912	775.687500	805.687500

**San Juan**

Voice 25KHz	209-212	765.312500	795.312500
Voice 25KHz	345-348	766.162500	796.162500
Voice 25KHz	401-404	766.512500	796.512500
Voice 25KHz	453-456	766.837500	796.837500
Voice 25KHz	493-496	773.087500	803.087500
Voice 25KHz	533-536	773.337500	803.337500
Voice 25KHz	577-580	773.612500	803.612500
Voice 25KHz	617-620	773.862500	803.862500
Voice 25KHz	661-664	774.137500	804.137500
Voice 25KHz	701-704	774.387500	804.387500

**Sanpete**

Voice 25KHz	137-140	764.862500	794.862500
Voice 25KHz	217-220	765.362500	795.362500
Voice 25KHz	257-260	765.612500	795.612500
Voice 25KHz	369-372	766.312500	796.312500
Voice 25KHz	409-412	766.562500	796.562500
Voice 25KHz	473-476	766.962500	796.962500
Voice 25KHz	501-504	773.137500	803.137500
Voice 25KHz	557-560	773.487500	803.487500
Voice 25KHz	609-612	773.812500	803.812500
Voice 25KHz	713-716	774.462500	804.462500
Voice 25KHz	865-868	775.412500	805.412500

**Sevier**

Voice 25KHz	41-44	764.262500	794.262500
Voice 25KHz	97-100	764.612500	794.612500
Voice 25KHz	161-164	765.012500	795.012500
Voice 25KHz	205-208	765.287500	795.287500
Voice 25KHz	249-252	765.562500	795.562500
Voice 25KHz	297-300	765.862500	795.862500
Voice 25KHz	345-348	766.162500	796.162500
Voice 25KHz	389-392	766.437500	796.437500
Voice 25KHz	465-468	766.912500	796.912500
Voice 25KHz	493-496	773.087500	803.087500
Voice 25KHz	565-568	773.537500	803.537500
Voice 25KHz	625-628	773.912500	803.912500
Voice 25KHz	677-680	774.237500	804.237500
Voice 25KHz	741-744	774.637500	804.637500
Voice 25KHz	781-784	774.887500	804.887500
Voice 25KHz	873-876	775.462500	805.462500
Voice 25KHz	941-944	775.887500	805.887500

**Summit**

Voice 25KHz	289-292	765.812500	795.812500
Voice 25KHz	345-348	766.162500	796.162500
Voice 25KHz	397-400	766.487500	796.487500
Voice 25KHz	469-472	766.937500	796.937500
Voice 25KHz	501-504	773.137500	803.137500
Voice 25KHz	541-544	773.387500	803.387500
Voice 25KHz	589-592	773.687500	803.687500

Voice 25KHz	629-632	773.937500	803.937500
Voice 25KHz	713-716	774.462500	804.462500
Voice 25KHz	789-792	774.937500	804.937500

**Tooele**

Voice 25KHz	41-44	764.262500	794.262500
Voice 25KHz	329-332	766.062500	796.062500
Voice 25KHz	373-376	766.337500	796.337500
Voice 25KHz	445-448	766.787500	796.787500
Voice 25KHz	513-516	773.212500	803.212500
Voice 25KHz	561-564	773.512500	803.512500
Voice 25KHz	613-616	773.837500	803.837500
Voice 25KHz	669-672	774.187500	804.187500
Voice 25KHz	717-720	774.487500	804.487500
Voice 25KHz	917-920	775.737500	805.737500

**Uintah**

Voice 25KHz	13-16	764.087500	794.087500
Voice 25KHz	81-84	764.512500	794.512500
Voice 25KHz	121-124	764.762500	794.762500
Voice 25KHz	213-216	765.337500	795.337500
Voice 25KHz	253-256	765.587500	795.587500
Voice 25KHz	365-368	766.287500	796.287500
Voice 25KHz	413-416	766.587500	796.587500
Voice 25KHz	461-464	766.887500	796.887500
Voice 25KHz	521-524	773.262500	803.262500
Voice 25KHz	569-572	773.562500	803.562500
Voice 25KHz	665-668	774.162500	804.162500
Voice 25KHz	705-708	774.412500	804.412500
Voice 25KHz	745-748	774.662500	804.662500
Voice 25KHz	797-800	774.987500	804.987500
Voice 25KHz	869-872	775.437500	805.437500

**Utah**

Voice 25KHz	17-20	764.112500	794.112500
Voice 25KHz	81-84	764.512500	794.512500
Voice 25KHz	121-124	764.762500	794.762500
Voice 25KHz	165-168	765.037500	795.037500
Voice 25KHz	241-244	765.512500	795.512500
Voice 25KHz	281-284	765.762500	795.762500
Voice 25KHz	321-324	766.012500	796.012500

Voice 25KHz	361-364	766.262500	796.262500
Voice 25KHz	417-420	766.612500	796.612500
Voice 25KHz	457-460	766.862500	796.862500
Voice 25KHz	481-484	773.012500	803.012500
Voice 25KHz	521-524	773.262500	803.262500
Voice 25KHz	569-572	773.562500	803.562500
Voice 25KHz	621-624	773.887500	803.887500
Voice 25KHz	661-664	774.137500	804.137500
Voice 25KHz	701-704	774.387500	804.387500
Voice 25KHz	745-748	774.662500	804.662500
Voice 25KHz	797-800	774.987500	804.987500
Voice 25KHz	837-840	775.237500	805.237500
Voice 25KHz	877-880	775.487500	805.487500
Voice 25KHz	945-948	775.912500	805.912500

**Wasatch**

Voice 25KHz	201-204	765.262500	795.262500
Voice 25KHz	353-356	766.212500	796.212500
Voice 25KHz	405-408	766.537500	796.537500
Voice 25KHz	449-452	766.812500	796.812500
Voice 25KHz	529-532	773.312500	803.312500
Voice 25KHz	581-584	773.637500	803.637500

**Washington**

Voice 25KHz	41-44	764.262500	794.262500
Voice 25KHz	85-88	764.537500	794.537500
Voice 25KHz	165-168	765.037500	795.037500
Voice 25KHz	205-208	765.287500	795.287500
Voice 25KHz	245-248	765.537500	795.537500
Voice 25KHz	285-288	765.787500	795.787500
Voice 25KHz	333-336	766.087500	796.087500
Voice 25KHz	373-376	766.337500	796.337500
Voice 25KHz	433-436	766.712500	796.712500
Voice 25KHz	501-504	773.137500	803.137500
Voice 25KHz	565-568	773.537500	803.537500
Voice 25KHz	605-608	773.787500	803.787500
Voice 25KHz	665-668	774.162500	804.162500
Voice 25KHz	713-716	774.462500	804.462500
Voice 25KHz	789-792	774.937500	804.937500
Voice 25KHz	829-832	775.187500	805.187500

Voice 25KHz	869-872	775.437500	805.437500
Voice 25KHz	909-912	775.687500	805.687500

**Wayne**

Voice 25KHz	57-60	764.362500	794.362500
Voice 25KHz	129-132	764.812500	794.812500
Voice 25KHz	289-292	765.812500	795.812500
Voice 25KHz	353-356	766.212500	796.212500
Voice 25KHz	417-420	766.612500	796.612500
Voice 25KHz	633-636	773.962500	803.962500
Voice 25KHz	829-832	775.187500	805.187500

**Weber**

Voice 25KHz	57-60	764.362500	794.362500
Voice 25KHz	125-128	764.787500	794.787500
Voice 25KHz	177-180	765.112500	795.112500
Voice 25KHz	217-220	765.362500	795.362500
Voice 25KHz	293-296	765.837500	795.837500
Voice 25KHz	341-344	766.137500	796.137500
Voice 25KHz	385-388	766.412500	796.412500
Voice 25KHz	433-436	766.712500	796.712500
Voice 25KHz	473-476	766.962500	796.962500
Voice 25KHz	485-488	773.037500	803.037500
Voice 25KHz	525-528	773.287500	803.287500
Voice 25KHz	593-596	773.712500	803.712500
Voice 25KHz	633-636	773.962500	803.962500
Voice 25KHz	741-744	774.637500	804.637500
Voice 25KHz	793-796	774.962500	804.962500
Voice 25KHz	833-836	775.212500	805.212500
Voice 25KHz	901-904	775.637500	805.637500

## Appendix E: Meeting Minutes and Agendas

# Meeting Minutes

Kick-Off Meeting  
November 21, 2003  
10:00 – 11:30am

---

### Welcome

Steve Proctor, the 800 MHz Region 41 chairperson, convened the first meeting of the 700 MHz Region 41 Planning Committee by having everyone in attendance stand up and introduce themselves. Steve then gave a brief explanation of the purposes of the 700MHz RPC, and the process used to provide notification of the meeting. It was made clear to those in attendance that current spectrum used in VHF and UHF (including 800 MHz) will still be available, and agencies will not be required to vacate their current technologies and migrate to 700 MHz.

### Slideshow

Steve used a PowerPoint presentation to explain the history and makeup of the new 700 MHz spectrum available to public safety agencies. Steve pointed out that manufacturers are not yet ready to produce products for use in the new spectrum. He deferred to the vendors present in the meeting. No one disagreed. The plan that Region 41 puts together must be approved by the surrounding regions, who have the authority to dispute. The 700 MHz RPC will also administer the new 4.9 GHz frequencies. There will be a Public Safety Wireless Network (PSWN) seminar in Salt Lake on January 15. More details on that meeting will follow. Steve asked for questions on any of the material covered. There were none, so Steve moved to the election of officers.

### Election of Chairperson

Terry Ingram, Steve Proctor, Dan Pearson and Randy Auman were nominated for the Chair. When Steve was nominated, he immediately asked Camille Anthony (Director of Utah Department of Administrative Services) to take over the election process. Prior to voting, by-laws were discussed, minor alterations were made, and the by-laws were approved unanimously. There was lengthy discussion regarding who could vote. State departments (not divisions) would each have one vote. A city could have multiple votes via police, fire, EMS, etc. Consolidated dispatch centers could be considered as a single agency. Each candidate was given 2 minutes to address the participants before voting. Dan Pearson motioned for a 10-minute recess for discussion among those in attendance prior to voting. Prior to a vote on the motion, Verdi White asked that each candidate address their agency's willingness to support them with resources of time and finance. Each was able to affirm that their respective agencies would support them. The motion for recess was seconded and approved. Immediately following the break, Terry Ingram withdrew his name from consideration and asked that those supporting him, would support Steve Proctor instead. Although private ballots were proposed, they were declined unanimously and voting was carried out by a show of hands. Steve Proctor received 35 or 36 votes, Randy Auman received 9. Steve Proctor was at that time the new 700 MHz RPC chair, but Camille continued with the election process for Vice-Chair, Secretary, and Treasurer.

### Election of Vice-Chair

This process proceeded quickly, with the nomination of Randy Auman and Doug Chandler. Randy received 26 or 27 votes, with Doug receiving 18.

### **Election of Secretary**

Doug Chandler was the only one nominated. He was elected by unanimous proclamation.

### **Election of Treasurer**

Tony Mason was the only one nominated. He was elected by unanimous proclamation.

### **UWIN**

Steve Proctor asked Camille Anthony to give a brief overview of the Utah Wireless Integrated Network (UWIN). UWIN is an inclusive organization with an emphasis in providing interoperability and wireless technologies to the rural areas of the state. Governor Walker's 1<sup>st</sup> Executive Order was the creation of UWIN on November 7, 2003. The organization is still in the information gathering stages. There are approximately 25 members on the Governance Board. Doug Chandler was asked to speak about the UWIN Technology Steering Committee, which he co-chairs with Jake Hunt. The Steering Committee has had two meetings, with the third meeting to be held later that same day. Doug discussed the UWIN Website, listserver, and process of becoming a member of the steering committee.

### **E-911**

Terry Ingram gave an overview of upcoming 911 legislation. The bill would provide PSAP's with the ability to:

- Increase the current 53¢ per phone charge to 65¢
- Create a service fund for rural areas
- Create a 16¢ fund for building out Phase II Wireless (Latitude /Longitude)

Approximately 25 states have PSAP's with Phase II. No agencies in Utah have Phase II yet. Terry asked that agencies please support the upcoming legislation –especially before the senate. Approximately 90% of Utah is E-911 compliant. The bill will first address getting the entire state up to E-911, then move to address E-911 Phase II. The tax commission charges 1.5% to collect and process 911 revenues.

### **Next Meeting**

The NEXT MEETING of the Region 41, 700 MHz Regional Planning Committee will be held at 10:00am Friday January 16 in the VECC training room. The meeting adjourned at 11:38am.

## **Meeting Minutes**

January 16, 2003  
10:00 am

---

### **Approval of Minutes**

There was no December meeting. The November minutes were approved as written by Tim Slocum and seconded by Boyd Webb.

### **Web Site**

Steve Proctor made everyone aware of the 700MHz Region 41 Web Site: [www.uwin.utah.gov](http://www.uwin.utah.gov)  
All documents, announcements, and information will be posted there.

## 700 MHz Plans by Other States

Missouri and Southern California are the only regions that have sent their plans into the FCC so far. Both plans were rejected. The Missouri plan was turned down primarily due to insufficient documentation.

## By-Laws

Our Region 41 By-Laws were patterned after Arizona's, with modifications to fit our needs. In this meeting, the following changes were proposed:

Section 3.9 – Steve Proctor asked if we really need an Executive Committee. Tim Slocum thought we should keep it as written so we don't need to call a statewide meeting for every procedural issues that comes up. Steve suggested we leave the by-laws open for one more meeting so people will have time to read through them and make comments.

## State Interoperability Executive Committee (SIEC)

Governor Walker has stated that the Governance Board of the Utah Wireless Integrated Network (UWIN) serve as Utah's SIEC. Steve Proctor noted that the by-laws for the SIEC should be completed by the next UWIN Governance Board meeting. The Governance Board has representation from all over the state. Boyd Webb noted that the FCC has already stated that the interoperability portion of the 700MHz spectrum will be Project 25 compliant. All of the 700MHz spectrum will require digital modulation.

We've posted Missouri's plan on our Web Site for your reference:

<http://uwin.utah.gov/700mhzrpc/700mhzrpcfiles/MissouriRegion24Plan.pdf>

As previously noted, the only two plans to be submitted, have been returned. All plans must have (among other items):

1. Provide contact information.
2. Provide description of region (population, how many PD's, counties, etc)
3. Post notification process
4. Post minutes

## Rules of Order

The Region 41 Committee will follow Robert's Rules of Order.

## Sub Committees

Chairman Proctor proposed Three Sub-Committees (Mobile Data added later). The following sub-committee chairs were later nominated, seconded, and voted on:

- **Implementation** (Boyd Webb, State ITS)
- **Interoperability** (Von Williamson, Cache County)
- **Technology** (Jeff Dial, St. George City)
- **Mobile Data** (Bryan Low, Logan City)

## **The subcommittees will determine:**

- Regional plan administration
- How does an agency apply for frequencies?
- What are the channel assignments?
- "Give Back" i.e.: if you get 700 MHz channels, the existing VHF must be given up (unless justification can be given).

- Planning tasks and frequency coordination
- Engineering survey requirements of the user requesting spectrum
- How do we distribute Wideband data channels?
- Dispute resolution processes
- System design and efficiency requirements (how many mobiles per channel? What is the minimum throughput per data channel?)
- What do we do with “orphaned channels” (channels that can’t be reused in an area)?

The FCC wants disputes to be handled as low as possible. Interoperability channels must be controlled by a dispatch center.

### Getting the 700MHz RPC Show on the Road

Steve asked for ideas on getting the work out to increase participation and knowledge about the 700 MHz RPC process. The following ideas were presented:

- Regional Homeland Defense Meetings – and get their meetings better attended by making announcements.
- PSAPs (Dispatch Centers)
- Floyd Ritter (EMS Communications Coordinator) will make sure EMS regional representatives attend meetings where the 700MHz RPC will be on the agenda.
- EDI meeting in March
- Sheriff’s Association meeting (not meeting again until next quarter)
- Fire Marshals meet every 2nd Tuesday of each month
- State Fire Chiefs (George Summers is secretary (298-6235) Next meeting in Feb.
- FBI National Academy Associates meeting in Moab. (Chief Hendricks)
- UWIN
- PSDAU Public Safety Dispatchers Association of Utah
- APCO meeting in April

The content of the presentations should remain simple and brief:

- What it is and what it isn’t
- What are the opportunities?
- Nobody has to do this (use 700 MHz)
- Expectations and expenses
- What is the future?

### Other Meeting Reminders

The SAFECOM Spectrum Seminar will be Jan 22, 2004 at the Sheraton City Centre.

The next UWIN Governance Board meeting is Feb 6, 2004.

### Next URPC Meeting

Logan PD

March 5

10:00am

# Meeting Minutes

March 5, 2004

10:00 am

---

## Introductions

Randy Auman (Vice Chair) conducted for Steve Proctor (Chair) who was unable to attend. Everyone introduced themselves and the agencies they represent.

## Power Point

Randy Auman gave a Power Point presentation by way of an overview of what the 700 RPC is responsible for. We discussed the need for input on this slideshow so we can make it the “official” slideshow, post it on the website, and allow members of the Region 41 RPC to give the presentation to meetings they may attend. We also discussed the need to document such ancillary meetings so we can add it to the overall Region 41 documentation.

## Web Site

[www.uwin.utah.gov](http://www.uwin.utah.gov) (select the 700 RPC menu item)

## Approval of Minutes

Boyd Webb made a correction that it was not Northern California, but Southern California Region 5 who submitted their plan to the FCC. The minutes were approved with that correction.

## Formal Process to Accept Agency Input Into Plan

Do we use List Server for getting the word out? Yahoo Group? Both?

Missouri plan was gigged for not properly documenting how they got the word out.

We need to increase documentation in general. If someone gives a presentation to a regional group, it should be announced in advance on the web page. Tim Slocum suggested that organizations, and not just individuals on the list server, should receive notifications. Tribal groups should be represented. Federal agencies should be invited to participate also. There are provisions within the rules for utilities etc to use the spectrum. We will need to create the processes that allow this to happen.

Voting members (1 per agency) should be on a roster and posted on the web site.

## 4.9 GHz Presentation

Boyd Webb gave an informative PowerPoint presentation on 4.9 GHz and the RPC's responsibilities for administering that spectrum. That PowerPoint will be posted on the Web Site. Floyd Ritter mentioned that one of the most valuable things about this new 4.9 GHz spectrum is that unlike current 802.11 spectrum, this one is license-able for public safety use. Public safety doesn't have to choose between 802.11 and the new 4.9 technologies because most chip set manufacturers provide hardware that can do both. Security will be an issue when someone can go to Staples and buy a dual-band card that can operate on the new licensed 4.9 GHz.

## New 4.9 GHz Sub-Committee

Tim Cornia was elected to serve as the 4.9GHz sub-committee chair. He already serves as the 802.11 Team Leader within the Utah Wireless Integrated Network (UWIN) Technology Steering Committee. Having Tim lead the drafting of the 4.9 GHz portion of the plan will provide for excellent coordination between the two groups. Tim is the Deputy Director of IT for State DPS.

### Sub-Committee Definitions

Steve Proctor came up with the following verbiage for sub-committee definitions, for the purpose of discussion in this meeting:

#### **Implementation (Boyd Webb):**

Regional Plan Administration, Application Process, Channel Assignments, Give-Back Channels, Planning Tasks and Frequency Coordination, Dispute Resolution, Plan Implementation and Modification

#### **Technology (Jeff Dial):**

What are the available technologies? Standards Processes, Engineering survey and documentation requirements for applications, What technology is used to bridge systems? What do we do with Orphaned channels that cannot be reused? System design and efficiency requirements-how many radios per channel?

#### **Interoperability (Von Williamson):**

What are the channels used for interoperability? How will each user include these in their user devices? How does this interact with dispatch? Training on the interoperability channels.

#### **Mobile Data (Brian Low):**

Statewide plan for wide band data channels, Statewide plan for narrowband data, Technology requirements, System interfaces between networks.

Boyd Webb pointed out some overlap issues between the *Implementation* and *Technology* sub-committees. Boyd will get with Jeff Dial and they will present their recommendations to the URPC in the next meeting.

Sub-Committee chairs will each create a YahooGroup to facilitate the sharing of documents and communication. The format should be RPC41-*<subcommittee name>*@yahoogroup.com.

### Omni-Link Update

Console Installations have been completed at Box Elder, Cedar, Richfield, Price, and Vernal. Phase One will connect several of the regional dispatch centers in such a way that they will be able to share resources. Full connectivity for all locations will not be until probably 2005.

### Action Items

1. Add group and individual contacts to the notification list.
2. Boyd Webb and Jeff Dial will get together and determine how their sub-committees will divide up their duties. They will report back in the next meeting.
3. Doug Chandler will draft a skeletal plan that we can start plugging information into.

### UWIN Technology Steering Committee Meeting

We were not able to get on the Association of Police Chiefs agenda during the convention in St. George, but we will have an agenda item on the UWIN TSC meeting. It will be held at the St. George PD, 10:00am

#### Next URPC Meeting

Friday April 23

1:00 pm

Price UDOT Conference Room

We will attempt to get the video conferencing facility to ease the travel burden.

## Meeting Minutes

April 23, 2004

1:00 pm

---

#### Introductions

Steve Proctor welcomed those in attendance. Introductions were made over the videoconference links.

#### Approval of Minutes

Tim Slocum made a motion to accept the minutes as presented. Jeff Dial seconded the motion. Motion passed unanimously.

#### Web Sites

Doug Chandler informed the group that the previous Lyris list server had been having problems, so YahooGroups were created for passing information. This is in addition to the RPC Web Site. The nice thing about the YahooGroups Web Site is that documents can be shared among sub-committees, meetings can be calendared, etc. The official RPC Website will remain the primary source of information. Here is the link for the 700MHz Regional Planning Committee YahooGroup: <http://groups.yahoo.com/group/RPC41/>

4.9 GHz Subcommittee: <http://groups.yahoo.com/group/RPC41-49GHz>

Interoperability Subcommittee: <http://groups.yahoo.com/group/rpc41-interoperability/>

Steve Proctor noted that the Region 41 plan will be posted and shared via this web site. Of course the official Region 41 website will also keep the most current document posted.

#### Purpose of 700MHz Slideshow

Randy Auman gave a PowerPoint presentation. The purpose of the Region 41 Planning Committee is to create and submit a plan to the FCC for the use of the new 700MHz spectrum. The frequencies were allocated from certain TV channels. Randy briefly discussed the required standards and uses of the spectrum, as well as the breakdown of the various portions of the new Public Safety spectrum.

Administration and Planning of and for the new spectrum will be an on-going basis even after the plan is submitted for approval. The Region 41 By-Laws and many other charts and documents are available on the Web Site: <http://uwin.utah.gov/700mhzrpc/700mhzrpc.html>

### Committee Structure and Responsibilities

Boyd Webb reported that the chairs of the *Implementation* and the *Technology* Subcommittees met and felt that the two committees had overlapping functions. These two committees have been merged into one, with Boyd Webb and Jeff Dial acting as co-chairs. Boyd outlined the need to recruit knowledgeable individuals to participate in this and other subcommittees.

***ACTION ITEM:*** Steve Proctor said he would send out a letter outlining the responsibilities of each subcommittee. A copy will go to Doug Chandler for posting on the Web Site(s).

Steve addressed a question on timeline for completion of the Region 41 Plan. Steve noted that we specifically need to focus on tribal areas with respect to meeting invites. Steve said timing would be noted in the definition of responsibilities of the various subcommittees.

### Interoperability Subcommittee

Von Williamson has nothing new to report yet. He is striving to recruit members to the YahooGroup.

### 4.9 GHz Subcommittee Report

Tim Cornia has been working with Boyd Webb on a draft plan. Tim Cornia gave a brief report on the document. There is a time constraint of July 1 on the completion of the draft. Tim will be working to push the document through to completion, after getting as much input as possible. There are significant things that will be addressed in the document. The document as drafted gives the RPC some authority as far as allocation and who gets to use what.

Steve further underscored that agencies would need to make application to this committee to use this new spectrum. Tim Cornia noted that manufacturers are already selling equipment that operates on this spectrum. There are really 18 channels that can be used, but some can be aggregated together to create larger channels. You can get up to 20 MHz by stacking four of the 5 MHz channels.

### Initial Draft of the Region 41, 700MHz Plan

Doug Chandler gave an overview of a skeletal outline that mirrors the NCC's recommendation for Regional Plans. The first version of the plan will follow this recommendation exactly. The rest of the group can change the structure as we go. Each section of the document will be assigned to a subcommittee for completion. Doug read off the recommended Table of Contents.

***ACTION ITEM:*** Doug Chandler committed to completing the first draft and getting it posted by the end of next week (4/30/04).

### Spread The Word

Steve urged everyone to keep the drive going to sign up agencies as members on the list. These efforts usually start strong and then taper off toward the end. We need to keep the momentum going. Jeff

### OmniLink Update

Steve asked Phil Bates to bring everyone up to speed on the OmniLink voice interoperability project. The system is being stage back at Motorola and is due to ship the 2nd week of May, arrive on sites with preliminary install and testing occurring the first week of June. A practical

test/exercise is scheduled in Millard County on June 15. Most of the network will be finished by July –August. The UCAN system will be migrated to it by October. By March 2005, the entire system should be up and running with all the regional centers connected.

Jeff Dial asked about on-going costs. Phil pointed out that dispatch hardware will remain the responsibility of the dispatch centers, but there will be costs for the circuits. Phil anticipates that the state will pick up the circuit costs.

Steve Proctor pointed out that one of the purposes of this project is to tie in 800MHz repeaters with the VHF systems throughout the state. This will be a unique system in the state as well as nationally. Someone asked about dispatchers having to monitor more channels. Phil pointed out that it will come down to procedures between dispatch centers. Steve underlined the critical need for training.

The next UWIN Technical Steering Committee will be in Millard County June 4 in order to demonstrate the OmniLink connection there.

### Next URPC Meeting

Steve said we should plan on holding informational meetings in:

- Moab/San Juan County
- Box Elder/Weber/Davis
- Tooele
- Richfield

Dave Shopay discussed at some length the need for better coordination and enforcement of talkgroup protocols. The 700MHz plan will need to have more stringent protocols.

#### **The Next Meeting will be:**

Friday June 11

10:00 am

Moab

**Department of Workforce Services**

Address: 457 Kane Creek Road

## **Meeting Minutes**

June 11, 2004

10:00 am

---

### Introductions

Steve Proctor welcomed those in attendance. The URPC officers were introduced. Introductions were made over the teleconference links from Salt Lake, Logan, and St. George.

### Approval of Minutes

The previous minutes were approved without change.

### New Chair for the Interoperability Subcommittee

Floyd Ritter was nominated by Rick Bailey to serve as the chairperson for Interoperability. Jeff Dial seconded the nomination, and the vote was unanimously approved.

## Purpose of 700MHz Slideshow

documents are available on the Web Site: <http://uwin.utah.gov/700mhzrpc/700mhzrpc.html>

## 4.9 GHz Subcommittee Report

Tim Cornia gave an update on the 4.9 GHz plan. Tim and Boyd Webb have worked closely on the draft (version 1.1). The changes were in sections 7.1 – 7.6. The committee will appoint a frequency coordinator to maintain a database of frequency usage. In 7.6 clarification is given on incident command, wherein an incident commander's authority to assign frequencies is recognized, it is still recommended that incident commanders make an attempt to find an un-used frequency if at all possible.

Tim noted that frequency coordinators need to be named. This can be done after the plan is submitted. We should start deciding who those people are going to be so training can be obtained. Geographic representation should be recorded on frequency usage. Tim will come to the next meeting with recommendations on appointing coordinators. Steve Proctor asked if there should be a single frequency coordination committee for 700MHz and 4.9. Boyd said there were several reasons to keep the coordination separate.

## Committee Structure and Responsibilities

### Interoperability Subcommittee

Von Williamson has nothing new to report yet. He is striving to recruit members to the YahooGroup.

MHz channels.

### Initial Draft of the Region 41, 700MHz Plan

Doug Chandler gave an overview of a skeletal outline that mirrors the NCC's recommendation

### Spread The Word

Steve urged everyone to keep the drive going to sign up agencies as members on the list. These

### OmniLink Update

Steve asked Phil Bates to bring everyone up to speed on the OmniLink voice interoperability

### Next URPC Meeting

Steve said we should plan on holding informational meetings in Ogden, Cedar City, and St. George.

#### **The Next Meeting will be:**

Friday August 27, 2004

10:00 am

Weber County Sheriff's Office

# Meeting Minutes

August 27, 2004

10:00 am

Weber County Sheriff's Office  
Conference Room

---

## Introductions

Steve Proctor welcomed those in attendance. Introductions were made for those attending in person as well as those on the phone.

## Approval of Minutes

The previous minutes were approved without change.

## Interoperability Subcommittee

Floyd Ritter is the new Chair of the 700 MHz Interoperability Subcommittee. Floyd requested clarification on his role after the recent creation of the State SIEC under UWIN. Steve Proctor and Phil Bates co-chair the new UWIN SIEC. Steve said the work done under the 700MHz RPC Interoperability Sub-Committee would be part of the SIEC. Floyd will send out more invites to participate in the sub-committee, with special emphasis on getting federal agencies to participate.

Floyd has a great deal of information on what states and federal agencies are doing with respect to interoperability. **The first meeting of the 700MHz Interoperability sub-committee will be:**

Monday September 13, 2004

10:00 am

State Radio Shop Conference Room

4501 South 2700 West

## Implementation and Technology Subcommittee

Boyd sought after and received the committee's approval to adopt the NCC's suggested approach for System Design/Efficiency Requirements as outlined in the NPSTC 700MHz Regional Planning Guidebook, Appendix K. Regions 5 (Southern California) and 24 (Missouri) have already adopted these guidelines. The FCC has approved Region 5's plan. There was some discussion of what was meant by 'interference-limited bases' vs 'noise floor-limited basis'. Boyd summarized as follows (some license taken here in condensing the discussion):

Maps (service contours) showing proposed coverage areas have been used for traditional frequency coordination. These maps are frequently wrong in their assumptions of coverage. What the I&T Subcommittee proposes is to pre-assign channels on a geographic basis. These channels would be reviewed in advance to avoid interference issues.

There was some discussion on the pro's and con's of this approach. In the end, the committee agreed with the NCC's recommendation for pre-assignment of channels. In addition, there was general agreement that a portion of the channels should be reserved. The I&T subcommittee will meet before the next URPC meeting and final recommendations would be presented.

As was decided in a previous meeting, Boyd Webb and Bryan Low will be responsible for maintaining the CAPRAD database. This is a nationally hosted database that will contain all of the information on the assignment of 700MHz public safety channels.

Tim Cornia asked how adopting Appendix K will affect coordination with neighboring regions. Bob Marz noted that in the 800MHz NPSPAC situation, it worked out better with the bordering states because everyone knew what everyone else was going to be using, as opposed to individual requests that required a lot of attention.

Floyd Ritter made a motion to adopt 'Appendix K' as outlined in the NPSTC guidelines, and as presented by Boyd Webb to the Region 41 Committee. Lloyd Johnson seconded the motion. The vote was affirmative and unanimous.

The first meeting of the Implementation and Technology Subcommittee will be:

Thursday September 23, 2004  
10:00 am  
Valley Emergency Communications Center  
5360 South Ridge Village Drive (5885 West)  
Salt Lake City, Utah 84118

Steve briefly discussed allocations of mobile data channels, and asked Boyd Webb to discuss the topic. Nationally, there seem to be two mind-sets:

1. States should be allocated a portion of channels for statewide operations.
2. States should 'get in line like everyone else'.

#### 4.9 GHz Subcommittee Report

Tim noted that we have not heard anything back from the FCC regarding the plan we submitted in July. Region 41 was the only region that submitted a plan. Two things that were addressed in the document were dispute and database management. Tim said his committee would start working on what kinds of things should be tracked in the database. We may want state AGRC to track map layer information.

Though many say that 4.9GHz equipment is not available now, Tim has found a number of manufacturers who are offering 4.9GHz equipment. Tim was concerned that there doesn't seem to be any requirements for licensing when this equipment is being purchased.

#### Vendor Participation in the Region 41 Planning Process

Steve had a request from a vendor a couple of days ago that wanted to present information to the Committee on his product. Steve felt it was improper to open up the meetings to vendors, because the purpose of the committee was to get the plan written. Tim was concerned about vendors making presentations, who are not under state contract. Bob Marz suggested that vendors should be invited to present information *after* the plan is completed. The committee seemed to be in unanimous agreement on that point.

#### Colorado Request for Approval of Inter-regional Agreement

Steve passed around copies of a request by Colorado to sign an Inter-regional agreement for their use of frequencies along the Utah-Colorado border. A vote was not taken; Steve asked that Boyd

Webb and Floyd Ritter's subcommittee's review the document and be prepared to comment by the next meeting.

### Future Meetings

Steve suggested that we need to have one final meeting in Richfield and make special effort to have participation by tribal, federal and other agencies participate. With the video-conferencing and phone-conferencing, Steve is convinced that we have done a much better job getting the information out.

### Next URPC Meeting

Friday September 24, 2004

10:00 am

State Alternate Site

350 S. 900 W.

Richfield, Utah

## **Meeting Minutes**

September 24, 2004

10:00 am

State Alternate Site

350 S. 900 W.

Richfield, Utah

---

### Introductions

Steve Proctor welcomed those in attendance. Introductions were made for those attending in person as well as those on the phone. Steve noted that this would be the last educational meeting of the Region 41 RPC. We will now start drafting the actual Regional Plan.

### Approval of Minutes

The previous minutes were approved without change.

### Purpose of the Region 41 RPC

Randy Auman gave a PowerPoint and overview of the purposes of the Region 41 RPC. This PowerPoint can be found in the "documents" section of the 700RPC Web Site:

<http://uwin.utah.gov/700mhzrpc/700mhzrpc.html#>

### 4.9 GHz Subcommittee Report

Tim Cornia gave an overview of the 4.9 GHz Regional Plan. The plan basically addresses database management (who is using 4.9 Frequencies) and dispute resolution. It looks like LA County is moving forward to purchase 4.9GHz equipment.

Utah was the only state to submit a 4.9 Plan. The FCC has put a stay on accepting/approving 4.9 plans pending resolution of standards. Tim pointed out that there is very little product available, but point-point equipment is available and is beginning to be deployed now.

The 4.9 GHz Plan is available on the UWIN 700RPC Web Site.

### Interoperability Subcommittee

Floyd Ritter chairs the 700 Interoperability Subcommittee. Floyd just returned from Baltimore where he attended the National Public Safety Telecommunications Council (NPSTC) conference. Floyd pointed out that training is a continuing problem with trunked systems and conventional systems alike. A standard for channel programming is essential. Various agencies with differing channel plans make interoperability difficult. There was a kick-off meeting of the State Interoperability Executive Committee (SIEC) on September 13. There was a lack of attendance in that first meeting and Floyd urged everyone to participate in the SIEC when the next meeting is announced.

Interoperability will be increasingly requisite as federal grants are requested in the future. We need as much participation as possible to ensure whatever interoperability plans emerge have the support of agencies throughout the state.

Steve Proctor asked Salina and Richfield PD representatives what would facilitate interoperability for their needs. They felt some level of commonality between the channels/names in various agency radios would be helpful. Randy Auman said Cache County recently went through a successful region-wide process of channel programming.

Steve asked for ways to ensure involvement happens with local and tribal agencies. Tim Cornia said we've probably done all we can to get the word out. Kathy Johnson suggested presentations should be made to the dispatch centers.

Tim noted that the decisions we are making now will probably not impact anyone in the room before they retire (except for the data channels).

### Implementation and Technology Subcommittee

Boyd Webb and Jeff Dial co-chair the Implementation and Technology Subcommittee. Boyd Webb gave a brief overview of the 800MHz meeting process that happened a decade ago. Now that there are 800MHz radios used on the Wasatch Front, an 800MHz radio user will have serious interoperability issues when trying to communicate with that radio in rural Utah. With the creation of the new public safety spectrum, the FCC's long-term vision was to consolidate all public safety agencies into one 700/800MHz band. All that really happened was an additional band was added to the mixture of interoperability challenges.

Boyd displayed a spreadsheet showing the new 700MHz spectrum and how the channels are segregated into various use types. The Implementation and Technology Subcommittee met yesterday and unanimously supported a plan wherein each of Utah's 29 counties will be pre-assigned 10 channels (290 of 616 in the general block). We had to preselect channels for our border counties so other regions (states) would know what channels not to use. But the subcommittee went ahead and pre-assigned channels to the rest of the counties. The remaining 60% (approx) will be set-aside in a reserve pool, where agencies can apply for them on an as-needed basis. Special blocks of 20 channels will be set aside for regional deployment as needed. So applications for one or two channels will not come out of those blocks of 20. Pre-assigned

frequencies in one area can be re-assigned to another distant area in order to stay out of the 20-channel channel blocks.

There will be a five-person coordination team that will accept agencies applications for channel use. In order to cover operational costs, there will be a fee for processing the coordination. The fee amount has not yet been determined, but it will be in-line with other frequency coordination fees.

The NCC recommended that pre-allocations be made based on population rather than geography. Back east, that works OK, but in the rural areas of Utah the largest counties frequently have the smallest populations, so counties such as San Juan would never qualify for enough channels to cover their area. Some smaller rural counties wouldn't make the 10,000 minimum for a single frequency. The coordination team will be entrusted to issue channels prudently.

Steve Proctor suggested that Tribes should be pre-allocated channels. There was general agreement that this should be done. They could be handled similar to any county pre-assignments.

The RPC accepted the subcommittee's recommendation as presented.

#### Mobile Data Subcommittee

Bryan Low is the subcommittee chair for Region 41 Mobile Data. Bryan presented a document outlining a recommendation from his subcommittee. Although initially his subcommittee was leaning towards pre-allocating data channels, the relatively small number of available channels made this option less attractive.

Instead, the subcommittee's recommendation is that agencies should work together in implementing mobile data solutions, and would follow a method similar to the Implementation and Technology's to respond to requests for channels on an as-needed basis. Requests will need to include detailed descriptions of the project, sharing agreements, and budgets. Applications would be approved on a first come first serve basis and allocations would be subject to recall if they were not used in an allotted time frame.

#### Make-up of the RPC 41 Coordination Committee

There was early discussion of having: (1) RPC Chair, (1) State, (1) County, (1) City, (1) At-Large. After some discussion it was decided that the coordination team/committee would not have such designations, but would be made up of (1) RPC Chair and (4) Others as appointed by the RPC. Steve stressed the need to retain at least one technical person that has a deep understanding of the technical issues involved with RF coordination.

RPC meetings will need to continue at least quarterly. Applications that have been reviewed can be brought before the RPC for approval.

# Meeting Minutes

November 30, 2004

10:00 am

DPS Conference Room

4501 South 2700 West

Salt Lake

## Latest Version of Plan: (1.2)

Steve Proctor wanted the committee to understand the importance of editing from a single point, and not having everyone making simultaneous changes to the latest published version. Please send any recommended changes to a committee member. Steve went through each section of the latest plan.

The **Table of Contents** was taken from the recommendation of the NCC.

**Contributions Section:** Add St. George City to the list of contributing agencies.

*Section Two Action Item: (Doug Chandler) Add all members that have participated in the meetings.*

A copy of the completed plan will need to be sent to the surrounding regions for approval.

We should better define the technical parameters of the application document that agencies will fill out and submit to request use of spectrum.

We should form a Frequency Approval Committee. Comprised of five members:

One would be the current RPC chair, plus four other members elected from among the committee.

*Section Six Action Item: (Floyd Ritter) Create text for 6.3 – 6.13 (as approved by subcommittee).*

Boyd Webb went briefly through section 7 (Interference Protection). A geographic model is being recommended to address possible interference. Boyd also addressed section 8. Each of the 29 counties will be pre-allocated 10 channels, leaving the rest of the channels in the general use, to be applied for by agencies who need to use them. Missouri pre-allocated all of the general use channels, but we are recommending keeping the majority of channels in the general use spectrum. Floyd Ritter questioned if the FCC was looking for a workable plan, or just something that is politically expedient. The current version of the plan pre-allocates 10 *adjacent* channels to each county. These channels, being adjacent, make deployment of all ten channels in a closely spaced region difficult.

The discussion brought out that what we are planning today would probably be unlike what is literally deployed 10 years from now. The process is more important than the allocations.

Boyd has been working with Phil Titus and Ron Titcomb (UofU television) to ensure TV and public safety needs can both be met while in the transition period. Brett Mills with Emery County pointed out problems with channel 63 causing interference with cell phone companies' GPS

information in his region. On Farnsworth Peak, both 63 and 64 are in operation and directed toward Tooele County. We can operate in 64 but not 63 in the Salt Lake Valley. 63 would cause interference with Lewis Peak.

100% of the Wideband data channels will be allocated on a first-come first-serve basis.

Section 12 has been giving Boyd Webb and Jeff Dial's sub-committee some headaches. Since no agencies have come forth with plans to utilize the spectrum, it is difficult to address how the plan best utilizes the spectrum. Doug Chandler noted that by the very fact that we are keeping so many channels in the general use 'pot', we are safe-guarding the best use of the spectrum in the future.

Action Item (Steve Proctor): In the 'Future Planning' section 13, Steve said he would address meetings –including upcoming APCO meetings.

Regarding future applications, it was discussed and agreed that an approval committee would be via open election of four individuals (plus the chair for a total of 5). Steve briefly discussed how the procedure worked through the 800MHz committee. All coordinators will be using CAPRAD.

Steve Proctor went through each of the appendices and discussed how they pertain to the body of the document.

#### Federal Participation

Jerry Rogers asked what has been done in the RPC planning process to address federal plans -such as the IWIN system. There was some discussion about how the interoperability channels were set aside to ensure the broadest range of participation. Funding the implementation of these channels will probably be tied to grants that will be used to implement future 700MHz systems. Steve Proctor said that he would discuss this further in a SAFECOM meeting that he will be attending in January. Steve will have further information on this in the February 700 RPC meeting.

Please Email any suggested changes to the plan directly to Steve Proctor ([steve@ucan800.org](mailto:steve@ucan800.org)). Doug Chandler will get the latest draft posted ASAP.

[http://uwin.utah.gov/700mhzrpc/700mhzrpcfiles/Region\\_41\\_Plan\\_REV%201.2.pdf](http://uwin.utah.gov/700mhzrpc/700mhzrpcfiles/Region_41_Plan_REV%201.2.pdf)

#### 4.9GHz Subcommittee

Tim Cornia covered the FCC's 'stay' on the deadline for states to submit their plans for use of the 4.9GHz spectrum. The 'stay' was for 6 months. The big reason for the stay involved arguments over the 'mask'. Tim predicted that at the end of the six-month period, the stay will not be extended because a consensus has apparently been reached. You can purchase 4.9GHz equipment today –you just can't license it.

Steve reported that he was going to sign Colorado's inter-regional agreement' –and probably use it as a format for our own when we're ready to send our plan out to the surrounding regions.

#### Next URPC Meeting

Friday February 18, 2005

10:00am – 12:00 noon

Valley Emergency Communications Center

5360 South Ridge Village Drive

(5885 W 5400 South)

# Meeting Minutes

February 18, 2005

10:00 am

V.E.C.C. Conference Room

## Approval of Previous Minutes

Randy Auman made a motion to approve the minutes without change. Jeff Dial seconded the motion. Motion passed unanimously.

## Latest Version of Plan: (1.4)

### **Implementation and Technology Sub Committee Report** (Boyd Webb and Jeff Dial)

Change to Section 12. The previous version of our plan kept over 50% of the available channels in reserve. Surrounding states have adopted the [CAPRAD](#) plan, which recommends allocating all of the channels based on population formulas. Boyd noted that the problem with the custom pre-allocation that was presented last month, is that it will not coordinate well with surrounding states. Rather than overhauling the previous version of section 12, Boyd recommended simply going with the CAPRAD recommendation that will immediately work with the surrounding regions. The plan leaves plenty of flexibility for future changes if needed. There are (1200) 6.25KHz channels. Jeff Dial made a motion to approve the changes as proposed. Bryan Low seconded the motion. Motion carried unanimously in favor.

### **Interoperability Sub Committee Report** (Floyd Ritter)

Floyd completed section 6.2 through 6.13 of the Interoperability Section. The FCC has changed their position on standard nomenclature. The FCC will now leave the naming of interoperable channels to the individual regions. The committee opted to note that Region 41 will “support” standardized nomenclature.

### **Mobile Data Sub Committee Report** (Bryan Low)

Bryan noted that no one has provided any input or feedback recently. Just as a reminder: all the wideband data channels will be held in reserve. Agencies can apply for those in the same manner as they can apply for the voice channels.

### **Delete Sections 12& 13**

Steve Proctor asked the committee if we really need sections 12 and 13. The topics seem to be covered in other areas of the document. Sections 5.2 and 5.3 cover section 13. Boyd Webb noted that Region 5 did use this section, but only because they are immediately implementing 700MHz systems.

### **Integrate 4.9 Plan in the Region 41 Plan**

Steve suggested that we add the 4.9GHz Plan that we’ve already submitted to the FCC, into the Region 41 plan as an attachment. There were no objections.

### **Boyd Webb to 700MHz Planning Seminar in St. Louis**

Steve proposed that the committee send Boyd Webb to the up-coming training in St. Louis, and have him report on the experience when he gets back.

### **Tribal Contacts**

There are 12 different tribes in Utah. Steve Proctor distributed a letter along with version 1.4 of the plan to each tribe, asking for their input. The letter was distributed in January.

### **Financial Accounting**

Of the original \$2,500 grant, there is \$1,764.31 remaining (before we send Boyd to St. Louis for training). There is another \$2,500 available after the original grant is exhausted.

### **Review of Idaho Plan**

Steve passed out and reported on Idaho's final draft. Idaho is asking Region 41 to approve their plan –as Region 41 will eventually ask of Idaho's region (12).

### **Page-By-Page Review**

Steve slowly took the committee through each page of the plan. Most changes were grammatical or format corrections. The next revision will contain the changes that were agreed to.

### **30-Day Comment Period**

Steve suggested that we initiate a 30-day comment period starting Monday February 21, 2005. Please submit comments in writing (email) to Steve Proctor, Randy Auman, or Doug Chandler.

### Next URPC Meeting

Friday, April 1, 2005  
Salt Lake City I.M.S. Building  
349 South 200 East (2nd Floor)  
Salt Lake City

[Video Conference Facilities can be made available. Contact [Doug Chandler](#) if you would prefer to attend via videoconference. We need at least two weeks notice prior to meeting in order to arrange a videoconference bridge].

### Approval of Previous Minutes

The minutes from the February 18, 2005 meeting were approved without changes.

### Latest Version of Plan: (1.6)

**Implementation and Technology Sub Committee Report** (Boyd Webb and Jeff Dial)  
No Changes.

**Interoperability Sub Committee Report** (Floyd Ritter)  
Floyd was not present, but sent word that there were no changes.

**Mobile Data Sub Committee Report** (Bryan Low)  
No Changes.

## **Corrections**

Jeff Dial pointed out several spelling and grammatical corrections which Steve noted, and will have corrected prior to submittal.

## 4.9 GHz Plan

Boyd Webb reported in what he learned after discussions with the FCC. Other states did not submit a 4.9GHz plan mainly because they were waiting for the FCC to make a decision in which modulation ‘mask’ would become the standard. The FCC has adopted the ‘A’ mask. Now the FCC is asking for plans by June 18, 2005. The FCC told Boyd that Utah has the option to re-submit our original 4.9 plan with any changes, or send a letter indicating that we have no changes to our original submission. Boyd’s recommendation was to send a letter indicating that RPC41 has no changes to our original plan. Steve indicated that he would send that letter if there are no objections. There were none.

## CAPRAD Database Administration

Boyd Webb gave an update of CAPRAD. The CAPRAD Database is used nationally to coordinate the 700MHz channels for all regions. It is a requirement. In order to have write access to that database, individuals are required to have CAPRAD training. It is a 2-day course. The RPC can send any number of individuals for the training. The next available training is May 3<sup>rd</sup> and 4<sup>th</sup>. Boyd reported that there is already a lot of good information available in CAPRAD. You can see the status of TV translators, channel pre-assignments, etc. This ‘read only’ information can be accessed by: <http://caprad.nlectc.du.edu/cp/index.jsp>

LOGIN is: guest

PASSWORD is: guest

Steve said that there was enough money left in the account to send Boyd to the Nashville training to obtain the training.

## Finalizing Plan

- Get any final comments to Steve Proctor by April 15, 2005.
- Send to Associations such as Police, Fire, EMS, Counties, Cities, etc.
- Copy of final document to tribal agencies (Steve Whittaker suggested registered mail)
- Surrounding regions (states) *must* sign off on plan prior to submittal to FCC
- Once received by the FCC:
  - 2 week review by FCC
  - 2 weeks to send out for comments
  - 2 weeks for receiving comments
  - 4-6 months to approve plan once the above 6 weeks is over (assuming no problems)

New Mexico has not yet formed a 700MHz RPC, and we cannot submit until New Mexico forms their RPC and signs off on Region 41’s plan.

## Additional 700MHz Spectrum

The FCC is requesting comment on the possibility of additional spectrum for public safety in the 700MHz spectrum. Steve suggest that as many agencies as possible write to the FCC prior to the April 28, 2005 deadline, and voice their support for this additional spectrum. Boyd Webb suggested that letters will carry more weight if they address the intent to actually use the spectrum,

and not just say “yeah, we’ll take some more spectrum if you’re offering”. Steve will put together a letter and have it posted so agencies can get an idea of what verbiage could be used.

#### Next Meeting

There are no further scheduled meetings at this time. Steve said that once the plan is approved, we will convene once more to create the Frequency Coordination Committee.

## Appendix F: Tribal Information

**Native American Tribes located in Utah were identified and mailed copies of the plan.**

**Goshute Indian Tribe**  
(Confederate Tribes of Goshute Reservations)  
Amos Murphy, Chairman  
PO Box 6104  
Ibapah, UT 84034-6036

**Utah Navajo Nation Representation**  
Kenneth Maryboy, Councilman  
Utah Navajo Commission  
PO Box 570  
Montezuma Creek, UT 84354

**San Juan Southern  
Paiute Tribe**  
President, Evelyn James  
PO Box 1989  
Tuba City, AZ 86045-1989

**Northwestern  
Band of Shoshone Nation**  
Ms. Gwen Davis, Chairwoman  
Bruce Parry, Executive Director  
862 South Main Street - Suite 6  
Brigham City, UT 84302-3300

**Skull Valley Band of  
Goshute Indians**  
Leon D. Bear, Chairman  
3359 South Main Street - #808  
Salt Lake City, UT 84115-4443

**Ute Mountain Ute Tribe**  
Selwyn Whiteskunk, Chairman  
PO Box 248  
Towaoc, CO 81334-0248

**Paiute Indian Tribe**  
Lora E. Tom, Chairwoman  
440 North Paiute Drive  
Cedar City, UT 84720

**Navajo Nation**  
President Joe Shirley, Jr.  
PO Box 9000  
Highway 264, Tribal Hills Drive  
Window Rock, AZ 86515-9000

**Utah Navajo Commission**  
Clarence Rockwell  
PO Box 570  
Montezuma Creek, UT 84534

**Utah Navajo Trust Fund**  
Tony Dayish, Director  
151 East 500 North  
Blanding, UT 84511-0696

**Ute Indian Tribe**  
Maxine Natchees, Chairperson  
PO Box 190  
Fort Duchesne, UT 84026-0190

**White Mesa Administration**  
Elayne Atcitty, Council Member  
PO Box 7096  
White Mesa, UT 84511

# 700 MHz → Region 41

January 3, 2005

White Mesa Administrative  
Attn: Elayne Atcitty, Council Member  
PO Box 7096  
White Mesa, UT 84511

Dear Mrs./Ms. Whiteskunk:

Attached please find a draft copy of the 700 MHz and 4.9 GHz frequency plans that are being prepared for Region 41 - the State of Utah. This is part of an effort taking place nationwide. The use of this spectrum (frequencies) is to support public safety agencies (police, fire, EMS, transportation and public works) with wireless voice and data communications services. We encourage your participation in the planning process by providing input into the planning process in writing after a review of the document. Regular meetings of the planning committee are held in various locations across the state. Times and locations are posted on the following web site: [www.uwin.utah.gov](http://www.uwin.utah.gov), click on the 700 MHz planning tab to obtain further information. Written comments may be sent to this address via email or US mail. If there are any questions that may be addressed, please feel free to call at 801-840-4200. Thank you for your input into the process.

Sincerely,

Steve Proctor  
Regional Chairperson  
Region 41  
5360 South Ridge Village Drive  
Salt Lake City, Utah 84118  
Email: [steve@ucan800.org](mailto:steve@ucan800.org)  
Telephone 801-840-4200  
Fax 801-840-4242

# Appendix G: Inter-Regional Coordination Procedures and Dispute Resolution

## Inter-Regional Coordination Procedures And Procedures for Resolution of Disputes That May Arise Under FCC Approved Plans

### I. INTRODUCTION

1. This is a mutually agreed upon Inter-Regional Coordination Procedures Agreement (Agreement) by and between the following 700 MHz Regional Planning Committees: Region 41 and (insert Region Number here)

### II. INTER-REGIONAL COORDINATION AGREEMENT

2. The following is the specific procedure for inter-Regional coordination which has been agreed upon by the Regions as listed above, and which will be used by the Regions to coordinate with adjacent Regional Planning Committees.
  - a. An application filing window is opened or the Region announces that it is prepared to begin accepting applications on a first-come/first-served basis.
  - b. Applications by eligible entities are accepted.
  - c. An application filing window (if this procedure is being used) is closed after appropriate time interval.
  - d. Intra-Regional review and coordination takes place, including a technical review resulting in assignment of channels.
  - e. After intra-Regional review, a copy of those frequency-specific applications requiring adjacent Region approval, including a definition statement of proposed service area, shall then be forwarded to the adjacent Region(s) for review.<sup>1</sup> This information will be sent to the adjacent Regional chairperson(s) using the CAPRAD database.
  - f. The adjacent Region reviews the application. If the application is approved, a letter of concurrence shall be sent, via the CAPRAD database, to the initiating Regional chairperson within thirty (30) calendar days.

#### *II. Dispute Resolution*

- (1) If the adjacent Region(s) cannot approve the request, the adjacent Region shall document the reasons for partial or non-concurrence, and respond within 10 (Ten)-calendar days via email. If the applying Region cannot modify the application to satisfy the objections of the adjacent Region then, a working group comprised of representatives

---

<sup>1</sup> If an applicant's proposed service area extends into an adjacent Public Safety Region(s), the application must be approved by the affected Region(s). Service area shall normally be defined as the area included within the geographical boundary of the applicant, plus three (3) miles. Other definitions of service area shall be justified with an accompanying *Memorandum of Understanding (MOU)* or other application documentation between agencies, i.e. mutual aid agreements.

of the two Regions shall be convened within thirty (30) calendar days to attempt to resolve the dispute. The working group shall then report its findings within thirty (30) calendar days to the Regional chairpersons email (CAPRAD database). Findings may include, but not be limited to:

- (i) Unconditional concurrence;
- (ii) Conditional concurrence contingent upon modification of Applicant's technical parameters; or
- (iii) partial or total denial of proposed frequencies due to inability to meet co-channel/adjacent channel interference free protection to existing licensees within the adjacent Region.**

(2) If the Inter-Regional Working Group cannot resolve the dispute, then the matter shall be forwarded for evaluation to the National Plan Oversight Committee (NPOC), of the National Public Safety Telecommunications Council. Each Region involved in the dispute shall include a detailed explanation of its position, including engineering studies and any other technical information deemed relevant. The NPOC will, within thirty (30) calendar days, report its recommendation(s) to the Regional chairpersons via the CAPRAD database. The NPOC's decision may support either of the disputing Regions or it may develop a proposal that it deems mutually advantageous to each disputing Region.

g. Where adjacent Region concurrence has been secured, and the channel assignments would result in no change to the Region's currently Commission approved channel assignment matrix. The initiating Region may then advise the applicant(s) that their application may be forwarded to a frequency coordinator for processing and filing with the Commission.

h. Where adjacent Region concurrence has been secured, and the channel assignments would result in a change to the Region's currently Commission approved channel assignment matrix, then the initiating Region shall file with the Commission a *Petition to Amend* their current Regional plan's frequency matrix, reflecting the new channel assignments, with a copy of the *Petition* sent to the adjacent Regional chairperson(s).

i. Upon Commission issuance of an *Order* adopting the amended channel assignment matrix, the initiating Regional chairperson will send a courtesy copy of the *Order* to the adjacent Regional chairperson(s) and may then advise the applicant(s) that they may forward their applications to the frequency coordinator for processing and filing with the Commission.

### III. CONCLUSION

3. IN AGREEMENT HERETO, Regions as above do hereunto set their signatures the day and year first above written.

Respectfully,

[all signatories to agreement]

## **Appendix H: Notifications**

Notification of Meetings were forwarded to the following Interested Parties:

Utah League of Cities and Towns [www.ulct.org](http://www.ulct.org)

Utah Association of Counties [http//uacnet.Pegasus.ultraservers.net](http://uacnet.Pegasus.ultraservers.net)

Utah Sheriff's Association [www.utahsheriffs.com](http://www.utahsheriffs.com)

Utah Chiefs of Police [www.utahchiefs.org](http://www.utahchiefs.org)

Bear River Association of Governments [www.brag.dst.ut.us](http://www.brag.dst.ut.us)

Wasatch Front Regional Council [www.wfrd.state.ut.us](http://www.wfrd.state.ut.us)

Five County Association of Governments [www.fcaog.state.ut.us](http://www.fcaog.state.ut.us)

Mountainland Associations of Governments [www.mountainland.org](http://www.mountainland.org)

## Appendix I:

### Where Can I Find More Information on What's Going On With The Planning Process?

The Web Site for the 700 MHz Regional Planning Committee can be found at: <http://uwin.utah.gov/700mhzrpc/700mhzrpc.html>



There you will find announcements, agenda, minutes, by-laws, and important documents. To subscribe to the List Server, send a blank E-mail to :

[RPC41-subscribe@yahoogroups.com](mailto:RPC41-subscribe@yahoogroups.com)

### 4.9 GHz -Part of the Plan

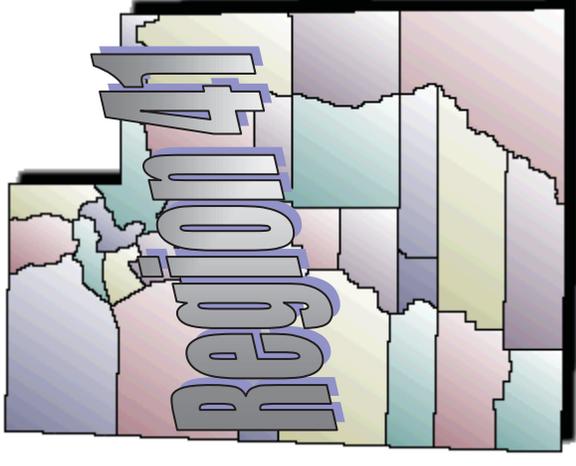
The FCC has given Regional Planning Committees the option to coordinate and administer the new 50 MHz of 4.9 GHz public safety spectrum. This new spectrum will provide for the use of high-speed data communications.

### We Need Your Support

The FCC has already rejected a number of plans from other regions. The primary reason for these rejections has been a lack of documented support from all areas of public safety –geographically as well as departmentally (Police, Fire, EMS, etc). Your support is not only welcome; it's a requirement for our collective success.

# 700 MHz

## Regional Planning Committee



Chair: **Steve Proctor**, UCAN  
(801) 840-4201 [steve@ucan800.org](mailto:steve@ucan800.org)

Vice Chair: **Randy Auman**, Logan PD  
(435) 716-9420 [rauman@loganutah.org](mailto:rauman@loganutah.org)

Secretary: **Doug Chandler**, State ITS  
(801) 965-4538 [dchandler@utah.gov](mailto:dchandler@utah.gov)

Treasurer: **Tony Mason**, Midvale PD  
(801) 256-2500 [tmason@midvale.com](mailto:tmason@midvale.com)

[www.uwin.utah.gov](http://www.uwin.utah.gov)

**Utah!**  
Where ideas connect

[www.uwin.utah.gov](http://www.uwin.utah.gov)

## What is this New 700 MHz Spectrum?

In 1998, the FCC adopted service rules for the 24 megahertz of spectrum in the 764-776/794-806 MHz frequency bands (collectively, the 700 MHz band). At the direction of Congress, this spectrum was reallocated from television broadcast services to public safety communications services.

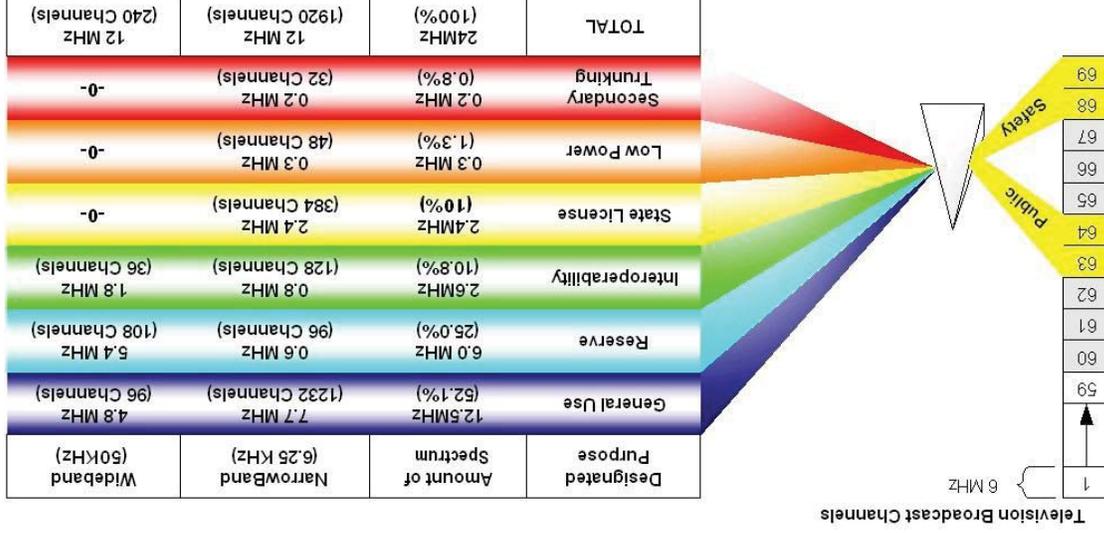
## When will the new spectrum be available?

It will be available as soon as existing TV stations vacate the spectrum, which is targeted for no later than December 31, 2006. (This date may be extended under particular circumstances...including for those markets where 15 percent or more households do not have access to either DTV-equipped receivers or multi-channel video.)

## Why Should My Agency be Involved with the Planning Process?

Even if your agency does not have a need for this new spectrum today, it should be involved in the planning process that will determine how the frequencies will be used for decades to come. The new 4.9 GHz frequencies available for high-speed data communications will be administered through the Region 41 Plan. This and other data applications will be one of the driving forces behind the development of the region plan in the near future.

## Public Safety 700 MHz Spectrum Allocation



## COMMITTEES

There are currently four sub committees that have been set up to help move the planning process along. If you're interested in participating in any or all of the sub committees, simply contact the chairpersons:

### Implementation & Technology

Co-Chairs:

Boyd Webb, State ITS  
(801) 538-3057  
boydwebb@utah.gov

Jeff Dial, St. George City  
(435) 634-5939  
jdial@sdpdm.state.ut.us

### Interoperability

Chair: Floyd Ritter, State ITS  
(801) 965-3869  
fritter@utah.gov

### Mobile Data

Chair: Bryan Low, Logan City  
(435) 716-9421  
blow@loganutah.org

### 4.9 GHz Plan

Chair: Tim Cormia, State DPS  
(801) 965-4250  
tcormia@utah.gov