



Regional Wireless Cooperative

Board of Directors

Agenda

September 22, 2016

10:00 a.m. – 11:30 a.m.

	ITEM	PRESENTER
1)	<b>Call to Order, Roll Call, Opening Comments</b>	Chair Hartig Scottsdale
2)	<b>Call to the Public</b> A member of the public may request to address the Board by submitting a blue card that is available at the entry of the room. Speakers will be considered at the sole discretion of the Board Chairman, and will be allotted no more than three (3) minutes to speak.	Chair Hartig Scottsdale
3)	<b>Approval of RWC Board Meeting Minutes from March 24, 2016 Meeting</b> <b>This item is for information, discussion and action.</b>	Chair Hartig Scottsdale  Est. 2 min.
4)	<b>RWC Surplus Property</b> The purpose of this item is to discuss the process to dispose of RWC surplus property. <b>This item is for information, discussion and action.</b>	Mr. David Felix – RWC Executive Director Tom Grebner – Radio Services Manager Kelly Stewart – Accountant III  Est. 5 min.
5)	<b>RWC ANNUAL AUDIT FOR FISCAL YEAR 2015/16</b> The purpose of this item is to update the Board on the RWC Annual Audit schedule and process <b>This item is for information only.</b>	Mr. David Felix – RWC Executive Director Kelly Stewart – Accountant III  Est. 5 min.



Regional Wireless Cooperative

Board of Directors

Agenda

September 22, 2016

10:00 a.m. – 11:30 a.m.

6)	<p><b>Reserve Account Update and Approval of TDMA Phase II Contract</b></p> <p>This purpose of this item is to update the Board on the Reserve Account and to approve the TDMA Phase II contract.</p> <p><b>This item is for information, discussion and action.</b></p>	<p>Mr. David Felix – RWC Executive Director Kelly Stewart – Accountant III</p> <p>Est. 10 min.</p>
7)	<p><b>Approval of new Executive Committee Member</b></p> <p>The purpose of this item is to request approval from the Board of the new Executive Committee Member.</p> <p><b>This item is for information, discussion and action.</b></p>	<p>Mr. David Felix – RWC Executive Director</p> <p>Est. 5 min.</p>
8)	<p><b>Approval of American Medical Response Associate Agreement</b></p> <p>The purpose of this item is to approve the American Medical Response Associate Agreement.</p> <p><b>This item is for information, discussion and action.</b></p>	<p>Mr. David Felix – RWC Executive Director</p> <p>Est 5 min.</p>
9)	<p><b>FCC Issue – Potential Microwave Interference</b></p> <p>The purpose of this item is to approve an RWC response to the FCC regarding a waiver request that could cause interference problems for public safety microwave networks.</p> <p><b>This item is for information, discussion and action.</b></p>	<p>Mr. David Felix – RWC Executive Director</p> <p>Est. 5 min.</p>
10)	<p><b>Encryption Management Policy</b></p> <p>The purpose of this item is to update the Board on the Encryption Management Policy.</p> <p><b>This item is for information only.</b></p>	<p>Mr. David Felix – RWC Executive Director</p> <p>Est. 3 min.</p>



Regional Wireless Cooperative

Board of Directors

Agenda

September 22, 2016

10:00 a.m. – 11:30 a.m.

<p>11)</p>	<p><b>Executive Director's Report</b></p> <ul style="list-style-type: none"> <li>A. Project Updates</li> <li>B. GWG Updates</li> <li>C. City of Phoenix Government Relations Director</li> <li>D. RWC Accountant III Recruitment</li> <li>E. RWC 2015 System Activity Update</li> <li>F. GRIC Temporary Operability Access</li> <li>G. 2016 Annual Report</li> </ul> <p>The purpose of this item is to update the Board.  <b>This item is for information and discussion.</b></p>	<p>Mr. David Felix – RWC          Executive Director          Mr. Tom Grebner –          Radio Service Manager</p> <p>Est. 10 min.</p>
<p>12)</p>	<p><b>Announcements &amp; Future Agenda Items</b></p> <p>The purpose of this item is to communicate any Board announcements or future agenda items.          The next meeting is on November 17, 2016 from 10:00 – 11:30.  <b>This item is for information only.</b></p>	<p>Chair Hartig          Scottsdale</p>
<p>13)</p>	<p><b>Adjourn</b></p>	<p>Chair Hartig          Scottsdale</p>



**Regional Wireless Cooperative  
Board of Directors  
MINUTES  
September 22, 2016**

City of Phoenix  
200 W. Washington Street, 12<sup>th</sup> Floor  
Phoenix, Arizona 85003

Board Members Present			Board Members Absent
Kevin Artz	Brad Hartig	Hans Silberschlag*	Bob Costello
Brad Miller	Danny Johnson		Terry McDonald
Jim Wize**^	Tim Van Scoter		Rick St. John
Chris DeChant*	Michael Cole		Milton Dohoney
Paul Luizzi	John Imig		Tory Maloney
Wayne Clement	Robert Sweeney*		Brenda Buren
Lonnie Inskeep	Mike Thompson		Bob Hansen
Brent Ackzen**	Mike Frazier		
*Board Alternate	** Telephone Participant	^Non-Voting Alternate	

**Staff and Public Present**

Domela Finessey**	Linda Gomez	David Felix	
Shuana Henrie**	Nicole Diedrick	David Clarke	
Dale Shaw**	Karen Ziegler	Kelly Stewart	
Jim Macenzie**	Tom Grebner	Jeanine Besnier	
Nick Spino	Michael Paz		
Mike Gent	Jimmy Trivedi		
Joe Gibson	Wayne Smith		
Dave Collett	Randy Thompson**		
Tonia Rogers	Tim Alison**		
**Telephone Participant			

**1. Call to Order, Roll Call and Opening Comments**

Chair Hartig called the meeting to order at 10:00 AM.

Executive Director David Felix introduced Jeanine Besnier, the new RWC Management Assistant 1.

**2. Call to the Public – None**

**3. Approval of RWC Board Meeting Minutes from March 24, 2016.**

A **MOTION** was made by Mike Thompson and **SECONDED** by Lonnie Inskeep to approve the RWC Board meeting minutes from March 24, 2016. **MOTION CARRIED UNANIMOUSLY (17-0).**

**4. RWC Surplus Property**

Mr. Felix requested approval from the Board for the RWC to transfer four unused, older servers to the City of Phoenix without additional appraisal to determine fair market value.

Tom Grebner explained how the RWC has four unused, older servers, as well as other RWC items in surplus. He asked that the servers be re-appropriated to the City of Phoenix. The hard drives in any surplus equipment will be destroyed.

Chair Hartig told the Board how the City of Scottsdale put their servers up for auction and that the City of Scottsdale received only \$19 each for them. The Chairman asked Mr. Grebner where the funds from the RWC surplus go. Mr. Grebner said that it goes in the RWC cost center fund.

A **MOTION** was made by Lonnie Inskeep to approve the City of Phoenix to dispose of the RWC property and to transfer the four servers to the City of Phoenix for use without an additional appraisal to determine the market value, and **SECONDED** by Danny Johnson. Robert Sweeney recused himself from voting. **MOTION CARRIED UNANIMOUSLY (16-0).**

**5. RWC Annual Audit for Fiscal Year 2015/16**

Mr. Felix updated the Board on the upcoming RWC Annual Audit that is set to begin on October 10, 2016. RWC staff met with CliftonLaronAllen (CLA) representatives on August 3. A pre-audit meeting will be held on September 29 with the CLA representatives, RWC staff and the RWC Audit Committee consisting of Paul Luizzi from Goodyear, Brenda Buren from Tempe, and Kevin Artz from Avondale. The findings of this audit are anticipated to be presented during the November 2016 Board meeting. Mr. Felix also stated that one member of the audit committee, Paul Luizzi, will term out and that the RWC will ask Board members to volunteer to serve on the audit committee for the next three years.

**6. Reserve Account Update and Approval of TDMA Phase II Contract**

Mr. Felix invited RWC Staff Kelly Stewart to speak about the Narrow-Banding Reserve Account Update and to request approval from the Board for Mr. Felix to sign the TDMA Phase II contract.

The RWC would like to change the radio count from the Phase I 2013 mandated radio count to the radio count that is current as of July 2016 for TDMA Phase II. This proposal is based on the most recent radio count of the first quarter billing 2016/17. This change would take effect for the project on July 2018.

Motorolla is providing RWC an incentive of \$1.6 M if contract is signed before October 30, 2016. This amount would be spread out on just the equipment cost over four years.

A **MOTION** was made by John Imig and **SECONDED** by Paul Luizzi to approve the TDMA Phase II Contract and to approve RWC Staff to invoice members annually for the TDMA Phase II based on the July 2016 radio counts pending City of Phoenix financial and legal approval. **MOTION CARRIED UNANIMOUSLY (17-0)**.

#### **7. Approval of new Executive Committee Member**

Mr. Felix requested approval from the Board for the nomination of the City of Surprise Public Works Director Mike Gent as the municipal representative of the Executive Committee. Mr. Gent was nominated by Mike Fraiser of the City of Surprise because of the vacancy left by Executive Committee Member Shannon Tolle.

A **MOTION** was made by Mike Thompson and **SECONDED** by Chris DeChant to approve Mike Gent as the new Executive Committee member. Mike Fraiser recused himself from voting. **MOTION CARRIED UNANIMOUSLY (16-0)**.

#### **8. Approval of American Medical Response Associate Agreement**

Executive Director David Felix clarified the definition of a RWC Associate by reading Article 3.1.2 in the RWC Governance Document. As AMR is now the new owner of PMT and SW Ambulance, staff will need to establish AMR as a new associate.

Mr. Sweeney pointed out that Paragraph 8 of the letter to the AMR does not clearly address the limitations stated in the RWC Governance Document. And staff should review and modify the letter to clarify these provisions.

Paul Luizzi asked Chair Hartig if the Executive Committee or the Operations Working Group could look at a time frame that would be suitable to ensure that the RWC is notified of any change in ownership of an associate so that there is no lapse in payments for the associate's radios.

Wayne Clement asked Joe Gibson of AMR if the (AMR) inner facility operations utilize a separate radio system or is AMR using the RWC equipment. Mr. Gibson replied that AMR has its own dispatch center in the City of Glendale and its own

radio frequencies for their own operational use. Most of AMR vehicles have several radio systems - a VHF, UHF and an 800 MHz. Chair Hartig said that there is no traffic going over the actual devices or hardware in the vehicles that are dedicated to the RWC unless it is in support of an RWC member.

The letter to the AMR should clarify what an associate member can do, especially if that associate member is a for-profit, given that some cities used tax exempt dollars in the build out of their RWC infrastructure.

A **MOTION** was made by Mike Thompson and **SECONDED** by Mike Frazier to table the approval of the American Medical Response Associate Agreement until November, 2016. **MOTION CARRIED UNANIMOUSLY (17-0).**

**9. FCC issue – Potential Microwave Interference**

Mr. Felix introduced Stuart Snow, the frequency coordinator for the City of Phoenix and RWC. Mr. Snow stated that the Higher Ground, LLC (HG) filing with the FCC happened in the summer of 2015 but the issue just came to his attention a few weeks ago. HG is asking the FCC to wave the ban against the use of the 6 GHz band for mobile use and to wave rules for frequency coordination. These are rules that are in place to protect Public Safety. He would like it on record that RWC opposes HG's request.

Mr. Felix mentioned that the RWC has been working with City of Phoenix Government Relations to make sure that contract lobbyists in Washington, D.C. know about this issue and can help track it. The RWC has also reached out to a publication called *Mission Critical and Radio Resource*, who has since published this issue in their magazine. The RWC has also shared this information with other regional public safety communication systems.

A **MOTION** was made by Paul Luizzi and **SECONDED** by John Imig to approve the language in the document and to authorize the RWC to post the document with the FCC in opposition to Higher Ground's waiver request. **MOTION CARRIED UNANIMOUSLY (17-0).**

**10. Encryption Management Policy**

Mr. Felix informed the Board that the changes made to the Encryption Management Policy were made to the structure and the verbiage only and that no substantive changes were made. The only reason it came before the board was because of the amount of changes that were made.

**11. Executive Director's Report**

**A. Project Updates**

- i) Daisy Mountain Fire District: Vice Chair Johnson: Funds are being solidified and the hope is that the final approval will be given from the Daisy Mountain Fire District Fire Board in October.
- ii) Paradise Valley: Michael Cole: The PV site should be completed by September, 2017.

## **B. GWG Updates**

Mr. Felix said that the RWC presented a draft Governance Document for members to review and a number of comments were made from members asking for legal discussion. The document will be moved to the next level.

## **C. City of Phoenix Government Relations Director**

Mr. Felix updated the Board on Tom Remes being appointed as the City of Phoenix's liaison to work on the South Loop 202 project. A recruitment is underway for his replacement. Mr. Remes will continue to serve as the Government Relations Director until a new selection has been made.

## **D. RWC Accountant III Recruitment**

Executive Director David Felix announced that Kelly Stewart will be retiring after 29 years with the City. She has been a tremendous asset to the RWC. An informal offer has been made to a potential replacement. Chair Hartig recognized Kelly Stewart for her excellent service.

## **E. RWC 2015 Activity Update**

Deferred until the November Board Meeting.

## **F. GRIC Temporary Operability Access**

The RWC has allowed Gila River Indian Community to extend its use of the RWC system through the end of September, which is when GRIC's system is to be completed.

## **G. 2016 Annual Report**

The Annual Report will now be on the RWCAZ.org website only and will no longer be printed to save on printing resources.



**12. Announcements & Future Agenda Items**

Mr. Felix mentioned the budget adoption in the November Board Meeting. Chair Hartig encouraged members to attend the November Board meeting in person if they can.

Mr. Felix announced that Michael Paz from Motorola will be retiring and Jimmy Trivedi from Motorola will be taking his place. This will happen in January, 2017.

**13. Adjournment**

Chair Hartig adjourned the meeting at 11:09 am.

A **MOTION** was made by Mike Fraiser and **SECONDED** by Hans Silberschlag to adjourn the September 22, 2016 Board Meeting. **MOTION CARRIED UNANIMOUSLY (17-0)**.

Respectfully submitted,

Jeanine Besnier, Management Assistant I



## BOARD OF DIRECTORS REPORT

TO:	Regional Wireless Cooperative (RWC) Board Members	Agenda Date:	September 22, 2016
FROM:	David Felix, RWC Executive Director		Item 4
SUBJECT:	<b>RWC Surplus Property</b>		

### PURPOSE

The purpose of this report is to brief the Board on the disposition of surplus property which requires documented Board approval.

### BACKGROUND

The RWC Governance Document, Section 5; Assets, requires approval by the Board to sell or dispose of any network assets. In the event of a sale, the Members would share in the proceeds, considerations, or benefits in proportion to the Members' Equity at that time.

### THE ISSUE

The city of Phoenix Radio Shop has compiled a list of RWC equipment and devices from the RWC network that need to be disposed of due to obsolescence. Also contained on the list are four servers for which the City of Phoenix can still make use of and has requested transfer of ownership. As a point of reference, the City of Scottsdale recently disposed of three new, unused servers and received only \$19.00 for each server. The servers are approximately four years old.

### RECOMMENDATION

The RWC Executive Committee has reviewed the list of items and recommends; 1) Board approval for the City of Phoenix to dispose of all items and; 2) transfer of ownership of the four servers to the City of Phoenix for its use without additional appraisal to determine fair market value.

This agenda item is for information, discussion and action.



## BOARD OF DIRECTORS REPORT

TO:	Regional Wireless Cooperative (RWC) Board Members	Agenda Date:	September 22, 2016
FROM:	Kelly Stewart, RWC Accountant III		Item 5
SUBJECT:	<b>RWC ANNUAL AUDIT FOR FISCAL YEAR 2015/16</b>		

### BACKGROUND

The RWC governance requires an annual independent audit of RWC financial records. The RWC Accountant III will provide an update on the audit process being conducted by CliftonLarsonAllen, LLP (CLA).

The annual RWC financial audit work is being conducted by the firm of CliftonLarsonAllen, LLP (CLA). On August 3, 2016, RWC staff attended the audit kickoff meeting with representatives of CLA to discuss the process, timeline, and significant audit areas. The main focus of the audit will be on pooled cash and investments, revenue, and expenditures.

A pre-audit meeting will be held with the Audit Committee and CLA on September 29<sup>th</sup> at 1pm. In preparing for the audit, RWC Accountant III Kelly Stewart is updating the Comprehensive Annual Financial Report (CAFR) and continues to provide items requested by CLA for use by the audit team during their field work to be conducted the week of October 10, 2016.

Completion and presentation of the audit findings is scheduled for the November RWC Board of Directors meeting.

### RECOMMENDATION

This agenda item is for information and discussion.



## BOARD OF DIRECTORS REPORT

TO:	Regional Wireless Cooperative (RWC) Board Members	Agenda Date:	September 22, 2016
FROM:	David Felix, Executive Director		Item 6
SUBJECT:	<b>TDMA PHASE II</b>		

### BACKGROUND

At the March 24, 2016 RWC Board of Directors meeting, the Board approved the Members' option to individually choose whether to retain their share of the reserve in the CIP account or receive a portion or all of their share by credit or refund.

- Members were originally invoiced annually for the Narrow-banding project based on radio counts approved by the Board on March 18, 2013.

### THE ISSUE

The RWC executive director and members of the RWC Executive Committee have been meeting with Motorola management to negotiate terms of a TDMA Phase II contract. The most recent proposal is \$258,252 below the original estimate presented to the Board on March 24, 2016. This is the result of a reduction in certain items in the proposal as well as Motorola cost reduction incentives.

- Members' estimated allocations are based on radio counts utilized for FY16/17 Rate Setting, approved by the Board March 24, 2016.

### RECOMMENDATION

The RWC Executive Committee recommends that the RWC Board of Directors; 1) approve the RWC Executive Director to sign the contract with Motorola for the TDMA Phase II contract to begin FY17/18; 2) approve RWC staff to Members to invoice Members annually for the TDMA Phase II project based on the July 2016 radio counts. (This will provide Members time for capital budgetary processes)

This agenda item is for information, discussion and action.

**RWC - TDMA Project Phase II A through D  
Financial Summary by Member**

Member	RWC Member Units (as of 7/2016)	Phase II Percentage of Units	Phase II-A 2017/18	Phase II-B 2018/19	Phase II-C 2019/20	Phase II-D 2020/21	Total Phase II A-D	Amt Held for Phase II	(Over)/Short
Avondale	316	1.76%	28,300	68,861	56,422	23,312	176,894	201,287.82	(24,393.58)
Buckeye	315	1.76%	28,210	68,643	56,243	23,238	176,334	146,598.66	29,735.79
Chandler	996	5.55%	89,198	217,042	177,836	73,477	557,553	734,511.79	(176,959.07)
Daisy Mountain	21	0.12%	1,881	4,576	3,750	1,549	11,756	3,799.26	7,956.37
El Mirage	105	0.59%	9,403	22,881	18,748	7,746	58,778	62,285.67	(3,507.52)
Glendale	1,275	7.11%	114,184	277,840	227,652	94,059	713,735	-	713,734.66
Goodyear	400	2.23%	35,822	87,166	71,420	29,509	223,917	-	223,916.76
Guadalupe	10	0.06%	896	2,179	1,786	738	5,598	8,354.77	(2,756.85)
Maricopa	181	1.01%	16,210	39,442	32,318	13,353	101,322	104,821.79	(3,499.46)
MCCCD	236	1.32%	21,135	51,428	42,138	17,410	132,111	133,859.46	*(1,748.57)
North County Fire & Medical	43	0.24%	3,851	9,370	7,678	3,172	24,071	28,863.58	*(4,792.53)
Peoria	856	4.77%	76,660	186,534	152,839	63,149	479,182	682,099.39	(202,917.53)
Phoenix	9,569	53.36%	856,961	2,085,217	1,708,547	705,923	5,356,649	-	5,356,648.60
Scottsdale	1,561	8.70%	139,797	340,163	278,717	115,158	873,835	1,058,091.18	(184,256.04)
Sun City	48	0.27%	4,299	10,460	8,570	3,541	26,870	31,903.59	(5,033.58)
Sun Lakes	38	0.21%	3,403	8,281	6,785	2,803	21,272	22,786.56	(1,514.47)
Surprise	414	2.31%	37,076	90,216	73,920	30,542	231,754	304,589.09	(72,835.25)
Tempe	1,517	8.46%	135,856	330,575	270,861	111,912	849,204	-	849,204.30
Tolleson Fire & PD	32	0.18%	2,866	6,973	5,714	2,361	17,913	22,027.31	(4,113.97)
<b>TOTALS</b>	<b>17,933</b>	<b>100.00%</b>	<b>\$1,606,008</b>	<b>\$3,907,848</b>	<b>\$3,201,941</b>	<b>\$1,322,951</b>	<b>\$10,038,748</b>	<b>\$3,545,880</b>	<b>\$6,492,868</b>

\*For O&amp;M or CIP



## BOARD OF DIRECTORS REPORT

TO:	Regional Wireless Cooperative (RWC) Board Members	Agenda Date:	September 22, 2016
FROM:	David Felix, RWC Executive Director		Item 7
SUBJECT:	<b>APPROVAL OF NEW EXECUTIVE COMMITTEE MEMBER</b>		

### THE ISSUE

With the recent retirement of Mr. Shannon Tolle of Scottsdale; the RWC Executive Committee (EC) now has a vacancy for the Municipal Representative position. This position is established in the RWC Governance to represent the non-public safety RWC users such as public works or parks and recreation.

RWC Board Member Mike Frazier from the City of Surprise has nominated Mr. Mike Gent to fill the vacancy. Mr. Gent is the Public Works Director of the City of Surprise.

The current EC Representation is as follows:

- Mr. Jesse Cooper – Phoenix Police Department – Police Representative
- Mr. Amos Chalmers – Phoenix Fire Department – Fire Representative
- Mr. Dave Heck – Tempe IT Department – Information Technology Representative
- Mr. Tom Grebner – Phoenix IT Department – Administrative Managing Member (City of Phoenix) Representative

### BACKGROUND

As a reminder, the following are the responsibilities, duties and criteria of the EC as articulated in the RWC Governance:

#### 3.2.2 Executive Committee

The purpose of the Executive Committee is to provide high level expertise in communications and operations, advise the Board, help direct the efforts of Executive Director and provide intermediate strategic direction for the RWC. The Executive Committee shall review and approve all proposals and recommendations, budget and financial reports, Network performance reports, and Board of Directors meeting agendas prior to submittal to the Board of Directors. The Executive Committee shall have the authority to return proposals and recommendations back to the originator for review and

revision. The Executive Committee shall identify for the Board of Directors performance issues and recommendations for Network enhancements and construction.

At least one Representative from the Executive Committee shall attend each Board of Directors meeting.

### 3.2.2.1 Representation

The Executive Committee shall consist of five Representatives appointed by the Board of Directors, plus the Executive Director who will be a non-voting member. Representatives, selected from the RWC Membership, shall consist of: one (1) Police Department executive manager; one (1) Fire Department executive manager; one (1) Municipal executive manager; one (1) Chief Information Officer (or equivalent); and one (1) executive manager from a Network Managing Member. The Executive Committee shall not be comprised of Representatives from only one Member. Every two years the Board of Directors shall review the Executive Committee representation.

### RECOMMENDATION

The EC has reviewed the nomination of Mike Gent, the Public Works Director of the City of Surprise, to the position of Municipal Representative on the EC and recommends Board approval.

This agenda item is for information, discussion and action.



## BOARD OF DIRECTORS REPORT

TO:	Regional Wireless Cooperative (RWC) Board Members	Agenda Date:	September 22, 2016
FROM:	David Felix, RWC Executive Director		Item 8
SUBJECT:	<b>Approval of American Medical Response Associate Agreement</b>		

### BACKGROUND

Some RWC Members have contracted for-profit companies to help provide services to the public. These companies, referred to here as Associates, are allowed to operate on the RWC Network in partnership with RWC Members. Because Associates are for-profit businesses, they are charged the standard operations and maintenance monthly fee for each subscriber unit they use on the Network, just as RWC Members pay.

### THE ISSUE

Several RWC Members currently partner with Southwest Ambulance (SA) and Professional Medical Transport (PMT) to provide emergency medical and medical transportation services. SA and PMT are currently RWC Associates. SA and PMT have recently been acquired by a new company, American Medical Response (AMR). AMR has requested to continue using the RWC Network in service to the public.

A draft of the proposed agreement letter between the RWC and AMR is included with this report for consideration and approval by the RWC Board of Directors.

### RECOMMENDATION

The RWC Executive Committee has reviewed the AMR Associate agreement and recommends Board approval to enter into the agreement.

This agenda item is for information, discussion and action.





Thursday, August 4, 2016

American Medical Response  
Glenn Kasprzyk, COO AMR Arizona  
8465 N Pima Rd  
Scottsdale AZ 85258

Dear Mr. Kasprzyk:

The purpose of this letter is to advise you that the Regional Wireless Cooperative's (RWC) Board of Directors has approved American Medical Response as an Associate. Associates have no RWC voting rights or representation on the Board of Directors or the Executive Committee, but may have representation on the Operations Working Group (OWG).

Your agency is permitted to use approved subscriber units (radios) on RWC talkgroups. The following are provided for your information regarding authorizations and limitations associated with these subscriber units' future operation, maintenance and impact on the RWC system:

1. All talkgroups contained in the approved programming file are non-secure and thus open to monitoring by the general public. No encryption key support will be provided with this request.
2. No emergency alert access is permitted for the approved subscriber units.
3. There is no independent dispatch support provided for your participants. RWC Member agencies do not assume any responsibility for providing dispatch services to your participants unless coordinated and approved in advance
4. Radios which have been lost, stolen, misplaced or compromised, can present significant hazards to operational personnel. The subscriber units must immediately be reported to the RWC. (See Lost Compromised Radio Procedure.) Furthermore, the RWC reserves the right to inhibit any radio suspected of interfering with public safety operations.
5. The approved subscriber units must follow the procedures in the RWC Member-Specific Talk Group Usage.

6. As an RWC Associate, your agency is responsible for the maintenance, replacement, and programming of your subscriber equipment (RWC Subscriber Radio Equipment Maintenance). **Your agency is also responsible for compliance with FCC rules and regulations which apply to your subscriber fleet (i.e. Project 25 Phase II TDMA).** The RWC may perform services for your agency with an approved contract, or by an authorized service provider (RWC Contractor Policy). As technical or operational changes are made by RWC members, it is your responsibility to reprogram subscriber units with updated talkgroup plans or programming files along with any associated costs. After a reasonable period of time, RWC radio IDs are subject to deactivation until the requested updates are completed by your agency.
7. The RWC will bill your agency at the prevailing Operations and Maintenance (O&M) fee per radio. The O&M fee is subject to change upon RWC Board approval.
8. This agreement is in effect based on the current RWC Governance Agreement Document and applicable Policies and Procedures (see [www.rwcaz.org](http://www.rwcaz.org)). Future modifications could subject your agency to additional fees, programming or operational protocol changes. Your agency will be notified prior to any alternations to this agreement so that you may evaluate continued participation based on the modified agreement.
9. This agreement may be terminated either at the discretion of the RWC or if your agency no longer supports public safety services with an existing RWC member.
10. Refer to RWC Configuration Management of Radio Templates for information regarding programming files. Questions or requests for assistance should be referred to Wireless Services at 602-262-4444.

Contact the RWC staff with any additional questions at 602-495-2426.

Sincerely,

David A. Felix  
 Executive Director  
 Regional Wireless Cooperative

By signing below, you acknowledge that you are authorized to sign on behalf of your agency and that your agency will abide by the terms and conditions set forth in this letter.

\_\_\_\_\_  
 Signature Title Date

\_\_\_\_\_  
 Printed Name



## BOARD OF DIRECTORS REPORT

TO:	Regional Wireless Cooperative (RWC) Board Members	Agenda Date:	September 22, 2016
FROM:	Mr. David Felix, RWC Executive Director Mr. Stewart Snow, COP/RWC Frequency Coordinator		Item 9
SUBJECT:	<b>FCC ISSUE – POTENTIAL MICROWAVE INTERFERENCE</b>		

### BACKGROUND

Higher Ground LLC (HG), a mobile earth station (ES) start-up, has applied to the Federal Communication Commission (FCC) for a nationwide license to operate mobile ES transmitters in the Fixed Service 6 GHz band (5925 -6425 MHz). This is the same band used by the RWC and other public safety communication networks for microwave connectivity. The HG system involves a cell phone attachment that would enable consumer-based text messaging, light email and Internet of Things (IoT) communications via geostationary C-band satellites.

### THE ISSUE:

This issue was recently discovered by City of Phoenix/RWC frequency coordinator Stuart Snow. Mr. Snow recognized this new technology as a potential threat to local microwave connectivity operating in the same frequency band. If HG's conceptual and untested method for mitigating interference does not work as proposed, public safety microwave links could be disrupted by intermittent interference. Obviously, this is unacceptable and a serious concern for mission critical public safety networks such as the RWC.

HG's application requests that the FCC waive two very significant rule parts:

- 1) Authorization for mobile operations in a Fixed Service band;
- 2) Permission to bypass the required Part 101 frequency coordination, instead of conducting notify-and-respond coordination through the FCC's rule making process.

Since the application has been under review for over a year HG is putting pressure on the FCC to grant it. HG is trying to make the case that since the FCC public noticed a year ago, all concerned parties have had a chance to comment. We disagree with this position in that routine FCC notices of applications accepted for filing do not constitute proper notice for a waiver matter that has sweeping implications for licensed users of the spectrum.

To date, only one other Public Safety entity, the State of Hawaii has filed comments. Other filers include the Fixed Wireless Communications Coalition (FWCC), Utilities Telecom Council (UTC), Century Link, National Spectrum Management Association (NSMA), Frontier Communications and the Nebraska Public Power District

#### RECOMMENDATION

The RWC Executive Committee recommends the Board of Directors: 1) approve the attached draft comments in opposition to HG's application; 2) authorize the RWC to file these comments with the Federal Communications Commission on behalf of the RWC Membership.

This agenda item is for information, discussion and possible action.

Before the  
 FEDERAL COMMUNICATIONS COMMISSION  
 Washington, DC 20554

In the Matter of	)	
	)	File No. SES-LIC-20150616-00357
Higher Ground LLC	)	Call Sign E150095
	)	
Application for Blanket Earth Station License	)	

**COMMENTS OF THE REGIONAL WIRELESS COOPERATIVE  
 IN OPPOSITION TO APPLICATION**

The Regional Wireless Cooperative (RWC) is filing these comments in opposition to Higher Ground LLC’s (HG) application for a blanket license to operate up to 50,000 mobile earth terminals for C-band operations. The RWC is a cooperative body formed under an Intergovernmental Agreement. Membership is open to all local, county, state, federal and tribal governmental entities. The RWC provides seamless interoperability for 20 cities, towns and fire districts located in the Phoenix metropolitan region by operating a wide area Public Safety network. The RWC has only recently become aware of the HG application and subsequent public notice<sup>1</sup> and is very concerned that this proposed use of frequencies in the 5925-6425 MHz band for mobile earth station transmission purposes will cause harmful interference to the RWC’s fixed microwave facilities located within its 11,000 square mile coverage area. The RWC operates no less than 20 fixed microwave paths in the C-band, all of which carry mission critical public safety traffic. The RWC disagrees with HG’s statement in its July 21, 2016 Response to FWCC<sup>2</sup> that input has been sought from other members of the point to point microwave community or that ample notice and opportunity has been provided for comment.

<sup>1</sup>See *Public Notice, FCC, Satellite Communications Services re: Satellite Radio Applications Accepted for Filing*, Report No. SES-01771 (Aug. 5, 2015) (listing Higher Ground Application IC-20150616-00357 as acceptable for filing).

<sup>2</sup> See *Higher Grounds Ex Parte Presentation Notification Letter* filed July 21, 2016. (Response to FWCC)

To be clear it should be noted that Public Safety entities do not typically monitor Satellite Radio Application Filings to the FCC's International Bureau. Since this is the case this matter is just now seeing the "light of day" in the public safety community which relies heavily on 6 GHz fixed microwave facilities as the back bone to link their radio networks. The RWC has invested large amounts of public tax dollars to engineer and build this infrastructure to meet 5 nines of reliability. Our wide area Simulcast networks and the first responders who rely on them deserve nothing less. Here in the Western United States 6 GHz facilities are the norm to span the long distances many of our facilities require. Due to seasonal atmospheric ducting and inversion layer anomalies 11 GHz paths simply do not work reliably enough over the longer distances required. The RWC has relied on the time proven PCN process to coordinate channels and identify potential interference. This system has worked well for the RWC which has invested its time and money in the licensing process knowing well that the path protection services provided by licensed coordinators and the security offered under the enforcement arm of the Commission would keep our networks safe. Given the mobile terminal nature of the proposed HG system public safety entities would not know about interference potential until it is encountered and would then only be left to "wonder what happened". The RWC sees this approach to waive frequency coordination as irresponsible considering the critical nature of its networks and does not wish to see the 6 GHz fixed band become "experimental" in nature. Thus the RWC requests that the Commission deny the HG application and waiver request and allow the matter to instead be studied under the full scrutiny of a rulemaking proceeding.

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David A. Felix, Executive Director  
City of Phoenix  
Regional Wireless Cooperative  
200 West Washington Street  
Phoenix, Arizona 85003-1611



## BOARD OF DIRECTORS REPORT

TO:	Regional Wireless Cooperative (RWC) Board Members	Agenda Date:	September 22, 2016
FROM:	David Felix, RWC Executive Director		Item 10
SUBJECT:	<b>Encryption Management Policy</b>		

### PURPOSE

The purpose of this report is to brief the Board on one policy which has been updated.

### BACKGROUND

The Policy Working Group (PWG) is responsible for developing policies and procedures which govern management and use of the RWC network. Policies require Operations Working Group (OWG) and Executive Committee (EC) review and approval prior to Board review and approval. Procedures require OWG and EC review and approval prior to being presented to the Board for information. The PWG also conducts on-going audits of approved policies and procedures to ensure they are up-to-date with current practices. Updates also require review and approval by the OWG and EC. When an item is significantly changed, the EC may forward the item to the Board for information and/or approval.

### DISCUSSION

The Board will be briefed on an update to the following policy:

- 1) Encryption Management Policy

The updated version of this policy followed by the previous version with mark ups to indicate what was edited is included with this report.

### RECOMMENDATION

The RWC Executive Committee have reviewed the update to the Encryption Management Policy and recommended that it be forwarded to the Board for information.

This agenda item is for information and discussion.

<b>REGIONAL WIRELESS COOPERATIVE POLICIES AND PROCEDURES</b>	 <b>Regional Wireless Cooperative</b>
	<b>No.</b>  <b>S-02.10</b>
<b>Subject:</b>  <b>Encryption Management Policy</b>	<b>Effective Date: 7/28/10</b>  <b>Revised: 3-8-16</b>

### 1.0 Purpose

- 1.1. The Encryption Management guidelines set forth in this policy are intended to ensure the security, management, generation, distribution, use, storage, and destruction of Regional Wireless Cooperative (RWC) encryption key materials.

### 2.0 Owner

- 2.1. RWC Operations Working Group (OWG)

### 3.0 Applies To

- 3.1. RWC members, interoperability participants and any entities otherwise using the secure operational capabilities of the RWC.

### 4.0 Background

- 4.1. RWC communications often contain sensitive and vital information relative to law enforcement and other public safety related activities. Disclosure or modification of this information could adversely impact public safety operations and pose a threat to the safety of public safety officials and citizens. The RWC has recognized the need for protected radio transmissions and has equipped the RWC with encryption capabilities that provide the required level of protection.
- 4.2. The generation of RWC encryption keys and distribution of those keys to subscribers in a synchronized fashion is a complex process that is critical to the encryption of radio transmissions. There are inherent risks and vulnerabilities to public safety personnel if proper key management processes are not followed. The RWC can significantly mitigate these risks and vulnerabilities by establishing standard key management processes.
- 4.3. Each RWC encryption key is associated with a system-wide key reference, referred to as a Common Key Reference (CKR). The same encryption key is referenced by the same CKR in every secure component, and allows key management in a device-independent manner. CKRs are assigned to talkgroups and multi-groups.



## 5.0 Policy Statement

- 5.1. The Network Managing Members of the RWC designate the Encryption Manager under the authorization from the RWC Board of Directors, to be responsible for the generation, distribution, storage, destruction, and maintenance of RWC encryption materials, and to implement established guidelines to support RWC encryption operations.

## 6.0 Supporting Rules

- 6.1. The Encryption Manager will centrally administer the RWC encryption management program for all RWC members.
- 6.2. All RWC members using encryption will designate a departmental Encryption Key Owner for the control and authorization of the encryption keys associated with departmental owned talkgroups.
  - 6.2.1. Each CKR will have a single designated Key Owner that is assigned by talkgroup owner.
  - 6.2.2. All authorizations for use and distribution of the encryption keys will be made in writing by the approved Key Owner using the RWC workbook.
  - 6.2.3. The Key Owner is the authority to modify any assignment of the CKR.
- 6.3. The Encryption Manager will maintain an encryption key map showing current assignments and authorizations, and a list of CKR Owners. This information will be distributed periodically to the Encryption Key Owner for validation. Subsequent changes to the current encryption key map and list of owners will be by notification of exception.
- 6.4. Key Generation
  - 6.4.1. RWC encryption keys will be generated by the Encryption Manager using the automatic key generation capabilities of the Key Management Facility (KMF).
  - 6.4.2. RWC encryption keys will be generated using 256 bit Advanced Encryption Standard (AES).
  - 6.4.3. The active key material will be changed on a periodic basis, not to exceed 24 months.
  - 6.4.4. Ranges for the CKRs are maintained by the Encryption Manager.
- 6.5. Key Distribution
  - 6.5.1. Member agencies are required to own or have access to a Member owned RWC provisioned Key Variable Loader (KVL).
  - 6.5.2. KVLs owned by other entities and provisioned by the RWC must be formally authorized by the OWG.
  - 6.5.3. Authorized KVLs may contain a Universal Key Encryption Key (UKEK), also known as a "Shop Key", and other keys approved by the Key Owner(s).
  - 6.5.4. Contractor owned KVLs authorized by the RWC shall only contain a contractor specific UKEK.

- 6.5.4.1. Contractors shall coordinate with the Encryption Office for all encryption services.
- 6.5.5. The RWC recommends that all encryption keys for subscribers be sent or updated via the KMF only. However, agency specific encryption keys may be manually loaded upon approval of the Key Owner.
  - 6.5.5.1. Encryption keys loaded manually with a KVL will not show on the Encryption Summary Report unless the subscriber information is provided and entered into a KMF record. It is recommended that the information of subscribers with manually loaded keys be sent to the Encryption Manager so a record can be maintained.
  - 6.5.5.2. Subscribers containing manually loaded encryption material will lose their encryption access when a key material change is performed on any CKRs that they have access and will need to be manually reloaded.
  - 6.5.5.3. Subscribers containing manually loaded encryption material cannot have keys removed or access deleted via Over the Air Rekeying (OTAR) - keys must be manually erased.
- 6.5.6. Manual loading of CKR 1 via a KVL in to any subscriber is not authorized without the approval of the OWG.
- 6.5.7. Console Key Loading
  - 6.5.7.1. Agencies requesting Over the Ethernet Keying (OTEK) for their consoles will be responsible for loading of a Shop Key using an authorized KVL.
  - 6.5.7.2. Consoles that do not support OTEK must have keys manually loaded via KVL by a responsible Member agency.
- 6.5.8. Destruction of active key material contained in a subscriber will be accomplished by zeroizing the key set in the subscriber via the KMF, KVL, or manual operation if available.
- 6.6. Key Material Distribution
  - 6.6.1. Requests for distribution of Member owned key material to be used in nonmember KVL and KMFs must be made in writing (letter or email) by the Key Owner, and sent to the Encryption Manager.
  - 6.6.2. It will be the responsibility of the Encryption Manager to present a written request for distribution of any encryption material to be used in a non-member KVL or KMF to the OWG for approval.
    - 6.6.2.1. The agency making the request must include the following: Purpose for the request, number of subscribers needing access, key material requested (i.e., CKR 1) and the name and contact information for the nonmember agency.
    - 6.6.2.2. Distribution of encryption keys will be by physical exchange of the key material directly from the KMF to the KVL device(s).
  - 6.6.3. RWC keys shall not be transferred by direct KVL to KVL connection.
  - 6.6.4. Agencies must provide a report of all subscribers containing any OWG owned key material within three (3) business days upon request by the RWC.
  - 6.6.5. It will be the responsibility of the non-member agency to obtain new key material in the event of an encryption key set change.

## 6.7. Encryption Materials

- 6.7.1. The RWC encryption database will be backed up and stored onsite in the Encryption Services Office, as well as offsite as designated by the Encryption Manager.
- 6.7.2. The RWC encryption database will be stored in encrypted format.
- 6.7.3. If the integrity of the RWC encryption database is compromised, all RWC key material will be immediately changed.

## 7.0 Responsibilities

- 7.1. The Encryption Manager will provide encryption services during normal business hours, Monday through Friday, 8:00 am to 4:00 pm, excluding defined holidays. All encryption related requests should be sent to [RWC.Encryption.ppd@phoenix.gov](mailto:RWC.Encryption.ppd@phoenix.gov). Any requests received after hours will be processed according to the timelines outlined in this policy. Any after hour support requests will be evaluated on a case by case basis and will only be considered in exigent circumstances.
  - 7.1.1. A minimum of three (3) business days lead time is required for all encryption requests, unless special circumstances exist. Larger projects may require a longer lead time.
- 7.2. Encryption Manager
  - 7.2.1. Performs key management functions on a day-to-day basis.
  - 7.2.2. Protects keying materials and limits access to individuals with a valid need-to-know.
  - 7.2.3. Configures security features of key management system components in accordance with RWC policies.
  - 7.2.4. Maintains required RWC encryption key workbooks and related documentation for a period of 24 months.
  - 7.2.5. Performs periodic backup of KMF databases.
  - 7.2.6. Reports any known or suspected incident involving keying material to the OWG.
  - 7.2.7. Creates and loads keys into KVLs.
  - 7.2.8. Coordinates with RWC members relative to the daily operational aspects of RWC encryption.
  - 7.2.9. Responsible for receiving and investigating any encryption-related incidents, including oversight of corrective actions related to compromised subscribers containing encryption keys.
  - 7.2.10. Zeroizes subscribers that have become compromised.
  - 7.2.11. Authorizes the establishment and closure of system accounts for the key management facility.
  - 7.2.12. Provides administrative guidance on the implementation of RWC key management activities.
  - 7.2.13. Assigns all CKR numbers as part of the talkgroup approval process.
  - 7.2.14. Ensures that encryption reports are generated monthly and distributed.
  - 7.2.15. Ensures that currency reports are generated quarterly and distributed.

- 7.2.16. Ensures completion of annual KVL audit.
- 7.3. RWC Executive Director is responsible for facilitating requests from outside agencies for KVL access to RWC key material and presenting the requests to the OWG for approval.
- 7.4. Authorized KVL Owner Responsibilities
  - 7.4.1. Ensuring KVL devices will be physically secured at all times when not in use.
  - 7.4.2. Responsible for loading of the initial UKEK (“Shop Key”) or authorized encryption keys into all RWC subscribers requiring secure capabilities.
  - 7.4.3. Verifies that the Radio Set Identifier (OTAR ID) matches the subscriber ID before loading encryption keys.
  - 7.4.4. Immediately reports any known or suspected incident involving compromised key material to the Encryption Manager who in turn notifies the OWG.
- 7.5. RWC Participating Agencies
  - 7.5.1. Maintain inventory control of secure subscribers.
  - 7.5.2. Designate individual(s) in the agency to act as the Key Owner.
    - 7.5.2.1. Each secure key will have a single owner.
    - 7.5.2.2. The Agency may delegate a temporary alternate Key Owner to act in the absence of the primary Key Owner.
  - 7.5.3. Responsible for implementing a training program for agency personnel relative to proper use of subscribers containing encryption keys.
  - 7.5.4. Load and maintain agency owned KVLs.
  - 7.5.5. Any agency utilizing encryption capable consoles must have access to their own KVL or arrangements need to be made with another Member to provide this service.
  - 7.5.6. Responsible for reporting lost or compromised radios to the RWC using the established distribution list (see RWC Lost Compromised Radio Procedure).
- 7.6. Key Owners
  - 7.6.1. Responsible for authorizing subscriber encryption through the Encryption Manager.

## **8.0 Encryption Management Process**

- 8.1. Requests for Creation of CKRs
  - 8.1.1. CKR creation requests must be made in writing (letter or email) and sent to the Encryption Manager. This request must include CKR number, CKR name, and Key Owner information.
- 8.2. Addition or Changes to Subscribers in the KMF
- 8.3. All requests for the addition of new subscriber IDs or any encryption changes requested to existing IDs or names must be made using the approved RWC workbook. Requests for encryption permissions will be the responsibility of the requesting agency to secure from each Key Owner affected. Additions or change requests need to be sent to the Encryption Manager for processing.

## **9.0 Conditions for Exemption or Waiver**

9.1. As provided in the Waiver or Exception Policy.

## **10.0 Applicable Policies and/or Procedures**

10.1. As listed at [www.rwcaz.org](http://www.rwcaz.org).

<b>REGIONAL WIRELESS COOPERATIVE POLICIES AND PROCEDURES</b>	 <b>Regional Wireless Cooperative</b>
	<b>No. S-02.10</b>
<b>Subject:</b>  <b>Encryption Management Policy</b>	<b>Effective Date: 7/28/10</b>  <b>Revised: <del>8/14/14</del> <u>2-9-16</u> <u>3-8-16</u></b>

### 1.0 Purpose

- 1.1. The Encryption Management guidelines set forth in this policy are intended to ensure the security, management, generation, distribution, use, storage, and destruction of Regional Wireless Cooperative (RWC) encryption key materials.

### 2.0 Owner

- 2.1. RWC Operations Working Group (OWG)

### 3.0 Applies To

- 3.1. RWC members, interoperability participants and any entities otherwise using the secure operational capabilities of the RWC.

### 4.0 Background

- 4.1. RWC communications often contain sensitive and vital information relative to law enforcement and other public safety related activities. Disclosure or modification of this information could adversely impact public safety operations and pose a threat to the safety of public safety officials and citizens. The RWC has recognized the need for protected radio transmissions and has equipped the RWC with encryption capabilities that provide the required level of protection.
- 4.2. The generation of RWC encryption keys and distribution of those keys to subscribers in a synchronized fashion is a complex process that is critical to the encryption of radio transmissions. There are inherent risks and vulnerabilities to public safety personnel if proper key management processes are not followed. The RWC can significantly mitigate these risks and vulnerabilities by establishing standard key management processes.
- 4.3. Each RWC encryption key is associated with a system-wide key reference, referred to as a Common Key Reference (CKR). The same encryption key is referenced by the same CKR in every secure component, and allows key management in a deviceindependent manner. CKRs are assigned to talkgroups and multi-groups.

## 5.0 Policy Statement

- 5.1. The Network Managing Members of the RWC designate the Encryption Manager under the authorization from the RWC Board of Directors, to be responsible for the generation, distribution, storage, destruction, and maintenance of RWC encryption materials, and to implement established guidelines to support RWC encryption operations.

## 6.0 Supporting Rules

- 6.1. The Encryption Manager will centrally administer the RWC encryption management program for all RWC members.
- 6.2. All RWC members using encryption will designate a departmental Encryption Key Owner for the control and authorization of the encryption keys associated with departmental owned talkgroups.
  - 6.2.1. Each CKR will have a single designated Key Owner that is assigned by talkgroup owner.
  - 6.2.2. All authorizations for use and distribution of the encryption keys will be made in writing by the approved Key Owner using the RWC workbook.
  - 6.2.3. The Key Owner is the authority to modify any assignment of the CKR.
- 6.3. The Encryption Manager will maintain an encryption key map showing current assignments and authorizations, and a list of CKR Owners. This information will be distributed periodically to the Encryption Key Owner for validation. Subsequent changes to the current encryption key map and list of owners will be by notification of exception.
- 6.4. Key Generation
  - 6.4.1. RWC encryption keys will be generated by the Encryption Manager using the automatic key generation capabilities of the Key Management Facility (KMF).
  - 6.4.2. ~~New~~ RWC encryption keys will be generated using 256 bit Advanced Encryption Standard (AES).
  - 6.4.3. The active key material will be changed on a periodic basis, not to exceed 24 months.
  - 6.4.4. Ranges for the CKRs are maintained by the Encryption Manager.
- 6.5. Key Distribution
  - 6.5.1. Member agencies are required to own or have access to a Member owned RWC provisioned Key Variable Loader (KVL).
  - 6.5.2. KVLs owned by other entities and provisioned by the RWC must be formally authorized by the OWG.
  - 6.5.3. Authorized KVLs may contain ~~the a~~ Universal Key Encryption Key (UKEK), also known as ~~the a~~ "Shop Key", and other keys approved by the Key Owner(s).
  - 6.5.4. Contractor owned KVLs authorized by the RWC shall only contain ~~the a~~ contractor specific UKEK.
    - 6.5.4-6.5.4.1. Contractors shall coordinate with the Encryption Office for all ~~Formatted:~~ Indent: Left: 0.75", Hanging: 1.06" encryption services.
  - ~~6.5.5. RWC subscribers which require encryption must have the Shop Key loaded using an authorized KVL.~~

~~6.5.6.6.5.5.~~ The RWC recommends that all encryption keys for subscribers be sent or updated via the KMF only. However, agency specific encryption keys may be manually loaded upon approval of the Key Owner.

~~6.5.6.1-6.5.5.1.~~ Encryption keys loaded manually with a KVL will not show on the Encryption Summary Report unless the subscriber information is provided and entered into a KMF record. It is recommended that the information of subscribers with manually loaded keys be sent to the Encryption Manager so a record can be maintained.

~~6.5.6.2-6.5.5.2.~~ Subscribers containing manually loaded encryption material will lose their encryption access when a key material change is performed on any CKRs that they have access and will need to be manually reloaded.

~~6.5.6.3-6.5.5.3.~~ Subscribers containing manually loaded encryption material cannot have keys removed or access deleted via Over the Air Rekeying (OTAR) - keys must be manually erased.

~~6.5.7-6.5.6.~~ Manual loading of CKR 1 via a KVL in to any subscriber is not authorized without the approval of the OWG.

~~6.5.8-6.5.7.~~ Console Key Loading

~~6.5.8.1-6.5.7.1.~~ Agencies requesting Over the Ethernet Keying (OTEK) for their consoles will be responsible for loading of ~~the a~~ Shop Key using an authorized KVL.

~~6.5.8.2-6.5.7.2.~~ Consoles that do not support OTEK must have keys manually loaded via KVL by ~~a~~ responsible Member agency.

~~6.5.9-6.5.8.~~ Destruction of active key material contained in a subscriber will be accomplished by zeroizing the key set in the subscriber via the KMF, KVL, or manual operation if available.

## 6.6. Key Material Distribution

6.6.1. Requests for distribution of Member owned key material to be used in nonmember KVL and KMFs must be made in writing (letter or email) by the Key Owner, and sent to the Encryption Manager.

6.6.2. It will be the responsibility of the Encryption Manager to present a written request for distribution of any encryption material to be used in a non-member KVL or KMF to the OWG for approval.

6.6.2.1. The agency making the request must include the following: Purpose for the request, number of subscribers needing access, key material requested (i.e., CKR 1) and the name and contact information for the nonmember agency.

6.6.2.2. Distribution of encryption keys will be by physical exchange of the key material directly from the KMF to the KVL device(s).

6.6.3. RWC keys shall not be transferred by direct KVL to KVL connection.

6.6.4. Agencies must provide a report of all subscribers containing any OWG owned key material within three (3) business days upon request by the RWC.

6.6.5. It will be the responsibility of the non-member agency to obtain new key material in the event of an encryption key set change.

~~6.6.6. If approved, use of RWC key material in a non-member KVL and/or KMF is subject to time limitations and authorizations may be reviewed on an annual basis.~~

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## 6.7. Encryption Materials

- 6.7.1. The RWC encryption database will be backed up and stored onsite in the Encryption Services Office, as well as offsite as designated by the Encryption Manager.
- 6.7.2. The RWC encryption database will be stored in encrypted format.
- 6.7.3. If the integrity of the RWC encryption database is compromised, all RWC key material will be immediately changed.

## 7.0 Responsibilities

- 7.1. The Encryption Manager will provide encryption services during normal business hours, Monday through Friday, 8:00 am to 4:00 pm, excluding defined holidays. All encryption related requests should be sent to [RWC.Encryption.ppd@phoenix.gov](mailto:RWC.Encryption.ppd@phoenix.gov). Any requests received after hours will be processed according to the timelines outlined in this policy. Any after hour support requests will be evaluated on a case by case basis and will only be considered in exigent circumstances.
  - 7.1.1. A minimum of three (3) business days lead time is required for all encryption requests, unless special circumstances exist. Larger projects may require a longer lead time.
- 7.2. Encryption Manager
  - 7.2.1. Performs key management functions on a day-to-day basis.
  - 7.2.2. Protects keying materials and limits access to individuals with a valid need-to-know.
  - 7.2.3. Configures security features of key management system components in accordance with RWC policies.
  - 7.2.4. Maintains required RWC encryption key workbooks and related documentation for a period of 24 months.
  - 7.2.5. Performs periodic backup of KMF databases.
  - 7.2.6. Reports any known or suspected incident involving keying material to the OWG.
  - 7.2.7. Creates and loads keys into KVLs.
  - 7.2.8. Coordinates with RWC members relative to the daily operational aspects of RWC encryption.
  - 7.2.9. Responsible for receiving and investigating any encryption-related incidents, including oversight of corrective actions related to compromised subscribers containing encryption keys.
  - 7.2.10. Zeroizes subscribers that have become compromised.
  - 7.2.11. Authorizes the establishment and closure of system accounts for the key management facility.
  - 7.2.12. Provides administrative guidance on the implementation of RWC key management activities.
  - 7.2.13. ~~A~~The Encryption Manager will assign all CKR numbers as part of the talkgroup approval process.
  - 7.2.14. Ensures that encryption reports are generated monthly and distributed.
  - 7.2.15. Ensures that currency reports are generated quarterly and distributed.
  - 7.2.16. Ensures completion of annual KVL audit.

7.3. RWC Executive Director is responsible for ~~handling-facilitating~~ requests from outside agencies for KVL access to RWC key material and presenting the requests to the OWG for approval.

7.4. Authorized KVL Owner Responsibilities

7.4.1. Ensuring KVL devices will be physically secured at all times when not in use.

7.4.2. Responsible for loading of the initial UKEK ("Shop Key") or authorized encryption keys into all RWC subscribers requiring secure capabilities.

7.4.3. Verifies that the Radio Set Identifier (OTAR ID) matches the subscriber ID before loading encryption keys.

7.4.4. Immediately reports any known or suspected incident involving compromised key material to the Encryption Manager who in turn notifies the OWG.

7.5. RWC Participating Agencies

7.5.1. Maintain inventory control of secure subscribers.

7.5.2. Designate individual(s) in the agency to act as the Key Owner.

7.5.2.1. Each secure key will have a single owner.

7.5.2.2. The Agency may delegate a temporary alternate Key Owner to act in the absence of the primary Key Owner.

7.5.3. Responsible for implementing a training program for agency personnel relative to proper use of subscribers containing encryption keys.

7.5.4. Load and maintain agency owned KVLs.

~~7.5.5. Loading of dispatch consoles via the KVL.~~ Any agency utilizing encryption capable consoles must have access to their own KVL ~~for loading of consoles~~ or arrangements need to be made with another Member to provide this service. ~~The Encryption Manager does not perform this service.~~

~~7.5.6. Responsible for reporting lost or compromised radios to the RWC using the established distribution list (see RWC Lost Compromised Radio Procedure).~~

~~7.5.5-7.5.7.~~

7.6. Key Owners

7.6.1. Responsible for authorizing subscriber encryption through the Encryption Manager.

~~7.6.2. Responsible for reporting lost or compromised radios to the RWC using the established distribution list (see RWC Lost Compromised Radio Procedure).~~

**8.0 Encryption Management Process**

8.1. Requests for Creation of CKRs

8.1.1. CKR creation requests must be made in writing (letter or email) and sent to the Encryption Manager. This request must include CKR number, CKR name, and Key Owner information.

8.2. Addition or Changes to Subscribers in the KMF

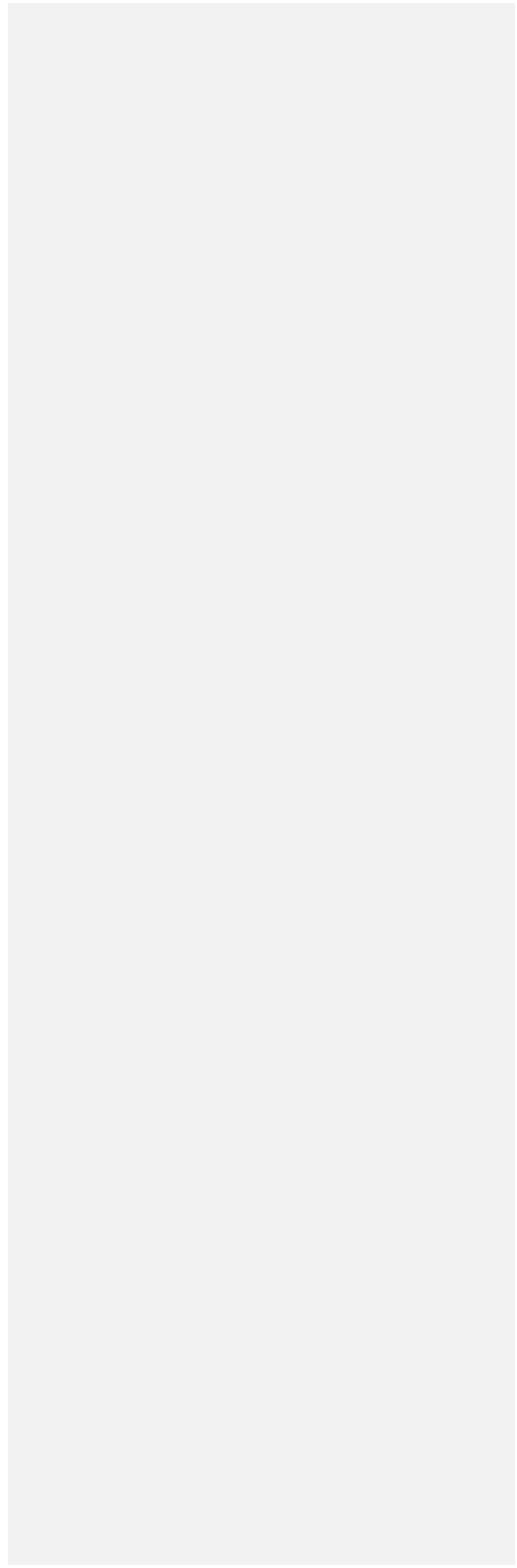
8.3. All requests for the addition of new subscriber IDs or any encryption changes requested to existing IDs or names must be made using the approved RWC workbook. Requests for encryption permissions will be the responsibility of the requesting agency to secure from each Key Owner affected. Additions or change requests need to be sent to the Encryption Manager for processing.

**9.0 Conditions for Exemption or Waiver**

9.1. As provided in the Waiver or Exception Policy.

**10.0 Applicable Policies and/or Procedures**

10.1. As listed at [www.rwcaz.org](http://www.rwcaz.org).





## BOARD OF DIRECTORS REPORT

<b>TO:</b>	Regional Wireless Cooperative (RWC) Board Members	<b>Agenda Date:</b>	September 22, 2016
<b>FROM:</b>	David Felix, RWC Executive Director		Item 11
<b>SUBJECT:</b>	<b>EXECUTIVE DIRECTOR'S REPORT</b>		

### BACKGROUND

The Executive Director will provide an update to the Board of Directors regarding the following issues:

A. Project Updates

1. Daisy Mountain Fire District
2. Paradise Valley
3. Southwest Fire Districts

B. Governance Working Group(s)

1. RWC GWG
2. RWC/TRWC GWG

C. City of Phoenix; Government Relations Director Change

D. RWC Accountant III Recruitment

E. RWC 2015 System Activity Update

F. GRIC Temporary Operability Access

In May the RWC Operations Working Group and Executive Committee, in the spirit of being a good neighbor, approved a request from the Gila River Indian Community (GRIC) Police Department to allow temporary operability access on the RWC Network for 90 days while GRIC re-deploys their own network after their first attempt was unexpectedly unsuccessful. An additional request was approved to extend that access to September 30, 2016, as their work is taking longer than expected.

G. 2016 Annual Report

Each year the RWC staff, with input from a number of City of Phoenix and other resources, publishes an Annual Report which highlights the accomplishments, projects, financial status and performance of the RWC. In the interest of reducing production costs and being more environmentally conscious, this year's report will be

provided exclusively in electronic format. The report can be downloaded from the RWC website ([rwcaz.org](http://rwcaz.org)) and can be viewed on any computer, tablet, or mobile device.

**RECOMMENDATION**

This agenda item is for information and discussion.



**Date:** September 6<sup>th</sup>, 2016

**To:** Regional Wireless Cooperative (RWC) Board of Directors  
Topaz Regional Wireless Cooperative (TRWC) Board of Directors

**From:** Brad Hartig, RWC Chairman  
John Kross, TRWC Chairman

**Subject:** RWC/TRWC Master Intergovernmental Agreement

As shared with you at our recent Board meetings, the joint Governance Working Group (GWG) has continued their work toward establishing a long-term partnership between our Cooperatives. As Chairs of our respective Boards, we are committed to achieving the goals as originally outlined when we first started this process:

Mission - To achieve excellence in radio and data communications supporting public safety and municipal partners.

Vision - To assure seamless radio and data communications to meet the operational needs of the users in a cost effective and sustainable manner.

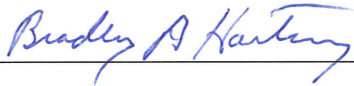
To this end, the GWG has established the following course of action, which they will be pursuing over the coming months:

1. The GWG will develop a "Master IGA" (rather than a single system governance) which will incorporate high level principles to maintain or establish regional system(s) compatibility, cooperation and inter-operational and operational roaming.
2. A "coordinating council" will be established to ensure accountability, long-term sustainability and input from stakeholders
3. Implementation will be phased, with 1) Development and approval of the Master IGA, and 2) development of the working group structure, participation, schedules and joint goals.
4. Participation by other regional systems in the Master IGA development process will be evaluated upon completion of a "rough draft" form of the Master IGA.
5. Strive to maintain the 2017 calendar year approval timeframe initially

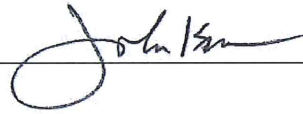
established when working on a single governance approach. This would include the adoption of the Master IGA. Throughout the process regular updates will be given to the respective boards regarding the overall progress of the working group.

The GWG has continued to work diligently toward improving the communications capabilities for the Public Safety members that serve our communities. You will be presented with a draft Master IGA for discussion at a future board meeting and from there it will be taken to an RWC/TRWC joint Board Meeting for consideration. Should you or your staff have any questions or concerns about the approach, please be sure to contact either TRWC Executive Director Dale Shaw or RWC Executive Director David Felix.

Thank you for your continued commitment and participation in the RWC and TRWC!



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