



Regional Wireless Cooperative
 Board of Directors
 Agenda
 November 21, 2013

	ITEM	PRESENTER
1)	Call to Order, Roll Call, Opening Comments and Employee Recognition	Chair Campbell El Mirage
2)	Approval of RWC Board Meeting Minutes from September 26, 2013 This item is for information, discussion and action.	Chair Campbell El Mirage Est. 2 min
3)	Approval of Joint RWC/TRWC Board Meeting Minutes from October 9, 2013 This item is for information, discussion and action.	Chair Campbell El Mirage Est. 2 min
4)	RWC 2013 Annual Audit The purpose of this item is to provide an update on the RWC annual audit process being conducted by CliftonLarsonAllen (CLA). This item is for information, discussion and action.	Ms. Kelli Butz RWC Accountant III & Mr. Ronald Sterns CLA, LLP Est. 15 min
5)	RWC Fiscal Year 2012/2013 Financial Update The purpose of this item is to request approval of the Executive Committee's recommendation to distribute fund balances. This item is for information, discussion and action.	Ms. Kelli Butz RWC Accountant III Est. 10 min
6)	RWC Fiscal Year 2014/2015 Budget and 5-year Plan The purpose of this item is to review and request approval of the RWC Budget for Fiscal Year 2014/15. This item is for information, discussion and action.	Ms. Kelli Butz RWC Accountant III Est. 10 min
7)	Discussion of VPM Issue with Motorola Chairman Campbell will brief the Board about meetings with Motorola management pertaining to the Voice Processing Module (VPM) issue. This item is for information and discussion.	Chair Campbell El Mirage Est. 10 min
8)	Discussion of FirstNet / National Public Safety Broadband Network Mr. Michael Britt of the State Public Safety Interoperability Communications (PSIC) office will brief the Board about <i>First Net</i> and <i>Public Safety Broadband Network</i> . This item is for information and discussion.	Mr. Michael Britt PSIC Office & Mr. David Felix RWC Executive Director Est. 15 min



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9)	<p>Locus DiagnostX Tool Overview The purpose of this item is to inform the Board of the functions and capabilities of the Locus DiagnostX over-the-air radio diagnostic tool. This item is for information and discussion.</p>	<p>Mr. Bill Phillips Phoenix ITS</p> <p>Est. 10 min</p>
10)	<p>Executive Director's Report A. MAI Hiring Process Update B. RWC Membership Discussion with ASU This item is for information and discussion.</p>	<p>Mr. David Felix RWC Executive Director</p> <p>Est. 10 min</p>
11)	<p>Call to the Public This item is for information only.</p>	<p>Chair Campbell El Mirage</p>
12)	<p>Announcements & Future Agenda Items The purpose of this item is to communicate any Board announcements or future agenda items. The date of the next Board Meeting: January 9, 2014 from 9:00 – 11:00 a.m. This item is for information only.</p>	<p>Chair Campbell El Mirage</p>
13)	<p>Adjourn</p>	<p>Chair Campbell El Mirage</p>



Regional Wireless Cooperative

Board of Directors

Agenda

November 21, 2013

**Board of Directors
2014 Meeting Schedule**

<u>Date</u>	<u>Location</u>
Thursday, January 23 10:00-12:00	Maricopa Association of Governments (MAG) 302 North 1st Avenue, 2nd Floor Phoenix, AZ 85003
Thursday, March 27 10:00-11:30	Maricopa Association of Governments (MAG) 302 North 1st Avenue, 2nd Floor Phoenix, AZ 85003
Thursday, May 22 9:00-11:00 *Joint Mtg*	Maricopa Association of Governments (MAG) 302 North 1st Avenue, 2nd Floor Phoenix, AZ 85003
Thursday, July 24 10:00-11:30	Maricopa Association of Governments (MAG) 302 North 1st Avenue, 2nd Floor Phoenix, AZ 85003
Thursday, September 25 10:00-11:30	Maricopa Association of Governments (MAG) 302 North 1st Avenue, 2nd Floor Phoenix, AZ 85003
Thursday, November 20 9:00-11:00 *Joint Mtg*	Maricopa Association of Governments (MAG) 302 North 1st Avenue, 2nd Floor Phoenix, AZ 85003



BOARD OF DIRECTORS REPORT

TO: Regional Wireless Cooperative Agenda Date: November 21, 2013
(RWC) Board Members

FROM: David Felix, RWC Executive Director Item 4

SUBJECT: **RWC ANNUAL AUDIT FOR FISCAL YEAR 2012/2013**

BACKGROUND

The RWC financial audit has been completed by the audit firm of CliftonLarsonAllen, LLP. The RWC Audit Committee met with the auditors and RWC staff to review the audit findings and will present their findings to the RWC Board of Directors.

THE ISSUE

On November 12, 2013 the Audit Committee met with representatives from CliftonLarsonAllen, LLP to review relevant documents and recommendations. The following are key highlights from the meeting and the Fiscal Year 2012/2013 RWC financial statements audit:

- On November 12, 2013, CliftonLarsonAllen, LLP issued an unmodified or “clean” opinion.
- The appointed RWC Audit Committee, acting on behalf of the Board of Directors, reviewed the audited financial statements and agreed with the audit opinion.
- The RWC audited financial statements include \$87 million in net position and approximately \$9 million in annual operating revenues.
- The significance of the “clean” audit is that all financial responsibilities were properly managed and accounted by RWC staff.
- There were no additional administrative recommendations to management for this audit period.
- CliftonLarsonAllen, LLP will formally brief the RWC Board of Directors on the audit process and its findings at the November 21, 2013 RWC Board meeting.

RECOMMENDATION

The Audit Committee and Executive Committee recommend Board approval of the audit findings.



BOARD OF DIRECTORS REPORT

TO: Regional Wireless Cooperative (RWC) Board Members Agenda Date: November 21, 2013

FROM: Kelli Butz, RWC Accountant III Item 5

SUBJECT: **FINANCIAL UPDATE FOR FISCAL YEAR 2012/13**

BACKGROUND

The purpose of this report is to present Fiscal Year 2012/13 financial updates to the Board.

THE ISSUE

The RWC governing documents state that year end expenditure reporting should be provided to the RWC Board. This report is a summary of total revenues and expenses for fiscal 2012/13. Total revenues collected for the fiscal year ended June 30, 2013 were \$8,554,872 and total actual operations and maintenance (O&M) expenditures were \$6,646,248. Total revenues exceeded total expenses by \$1,908,624.

There were a number of line items in the budget that contributed to revenues exceeding expenses. The main variance from budget to actuals occurred in the following areas:

- Unfilled Information Technology Services (ITS) positions and reduction in facility and preventive maintenance
- Cost savings in electricity charges at shared sites
- White Tanks site relocation was delayed
- Fixed asset adjustments which resulted in a credit to O&M expenditures
- Additional FCC licenses for the Narrow Banding project were delayed until fiscal year 2013/14

RECOMMENDATION

The RWC Executive Committee recommends Board approval of the proposal to apply each Member's fiscal year 2012/13 settlement towards their respective billings for Fiscal Year 2013/14.



BOARD OF DIRECTORS REPORT

TO: Regional Wireless Cooperative (RWC) Board Members Agenda Date: November 21, 2013
FROM: Kelli Butz, RWC Accountant III Item 6
SUBJECT: RWC BUDGET 2014/15 BUDGET OVERVIEW & FIVE YEAR PLAN

BACKGROUND

The purpose of this report is to present the proposed 2014/15 RWC Budget and Five Year Plan to the Board. The Executive Committee's input and recommendations have been incorporated into the budget proposal.

THE ISSUE

The RWC Budget is made up of the following categories:

- Motorola Contracts
 - Service Agreement and System Upgrade Agreement (SUA II), Narrow Banding, Lifecycle Upgrades, and TDMA
- Phoenix Information Technology and Services (ITS)
 - Wireless Services, Microwave, Network Services, and Share Sites.
- RWC Staffing
 - The cost of six staff positions
- Other budget items
 - Including maintenance cost for City of Scottsdale, site leases, electricity, auditing services, and consultants

For planning purposes, a summary of the RWC's estimated five year budget is shown below.

RWC ANNUAL BUDGET	FY2014/15	FY2015/16	FY2016/17	FY2017/18	FY2018/19
Subscriber Rate	\$38.63	\$39.30	\$40.92	\$42.18	\$43.48
Estimated Subscriber Count	17,936	17,936	17,936	17,936	17,936
O & M, Staffing	\$8,314,930	\$8,458,294	\$8,807,538	\$9,077,691	\$9,357,741
Required Minimum Balance	\$13,094	\$10,598	\$0.00	\$0.00	\$0.00
700 MHz, TDMA & Life Cycle	\$8,588,364	\$8,588,364	\$17,737,600	\$0.00	\$0.00
System Upgrade Agreement	\$2,720,200	\$2,725,000	\$2,764,400	\$2,809,400	\$2,809,400
Total Budget	\$19,636,588	\$19,782,256	\$29,309,538	\$11,887,091	\$12,167,141

The budget allocation for each Member is presented below.

Member	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19
Avondale	\$ 308,520	\$ 311,040	\$ 446,133	\$ 202,412	207,174
Buckeye	238,169	240,185	339,047	161,930	165,739
Chandler	1,005,070	1,012,646	1,501,359	608,564	622,882
Daisy Mountain	5,973	6,022	8,576	3,982	4,076
El Mirage	92,770	93,513	135,221	59,728	61,133
Glendale	1,508,164	1,518,880	2,302,367	860,749	881,000
Goodyear	280,407	270,288	326,576	238,913	244,534
Guadalupe	11,167	11,250	16,800	6,636	6,793
Maricopa	148,445	149,594	219,514	92,247	94,417
Maricopa County Community College District	246,394	256,613	364,780	152,639	156,230
Paradise Valley	67,490	70,290	99,918	41,810	42,793
Peoria	960,729	968,131	1,422,936	594,627	608,617
Phoenix	10,935,537	11,015,977	16,486,513	6,461,259	6,613,275
Rural Metro	47,286	48,101	50,087	51,624	53,216
Scottsdale	1,480,512	1,491,864	2,197,024	911,850	933,303
Sun City Fire	46,840	47,212	68,550	29,864	30,567
Sun City West	40,706	41,020	60,268	25,219	25,812
Sun Lakes	32,137	32,384	47,580	19,909	20,378
Surprise	431,410	434,748	637,924	268,113	274,421
Tempe	1,718,414	1,731,815	2,533,015	1,076,434	1,101,760
Tolleson	30,449	30,681	45,348	18,582	19,019
Total	\$19,636,588	\$19,782,256	\$29,309,538	\$11,887,091	\$12,167,141

RECOMMENDATION

The RWC Executive Committee recommends Board approval of the proposed 2014/2015 Budget.



BOARD OF DIRECTORS REPORT

TO: Regional Wireless Cooperative (RWC) Board Members Agenda Date: November 21, 2013

FROM: Steven Campbell, RWC Chairman Item 7

SUBJECT: **VOICE PROCESSING MODULE (VPM) UPDATE**

BACKGROUND

At the September 26, 2013 RWC Board of Directors meeting, a briefing was provided by Phoenix ITS staff to the Board regarding issues with Motorola's "Voice Processing Module" (VPM) in recently installed MCC7500 radio dispatch consoles. As a result of the briefing, Chairman Steve Campbell directed RWC staff to schedule a conference call with Motorola management to discuss progress and future plans to address the VPM issues.

THE ISSUE

After installation of new Motorola MCC7500 radio dispatch consoles for the cities of Mesa, Chandler and Tempe; a number of anomalies surfaced with the Voice Processing Module (VPM) including random "resets." The VPM is an essential part of the console subsystem. The City of Mesa (TRWC) and RWC technical staff have been working closely with Motorola technical and management staff to identify the root cause and solutions to the problems. The difficulty with this issue has been the random nature of the problem which makes it difficult to isolate and fix.

CONFERENCE CALL/IN-PERSON MEETINGS

On Friday, October 25th; a conference call was hosted by Chairman Campbell with key RWC/TRWC and Motorola management/technical staffs. The following are actions that have been implemented or on-going by Motorola to resolve VPM issues:

- Identified root causes and addressed manufacturing issues with respect to "solderability" problems (Tempe) and "shields" (Chandler)
- Installed a software fix in September 2012 for a "stack overflow" issue (Mesa)
- Repeater on/off issue fixed and is now undergoing System Validation (Mesa)
- Motorola staff and support engineers assigned full time to VPM issue
- Motorola cross-functional team involved in the analysis of any issues
- Faulty computer boards immediately sent to the Motorola engineering team for triage and analysis
- Customers provided with new computer boards as replacements

On Wednesday, November 6th, Chairman Campbell facilitated a follow-up, in-person meeting with Brenda Herold, Corporate Vice President; Motorola Global Astro Engineering, additional Motorola management personnel and RWC/TRWC management/technical staff to answer questions and solidify Motorola's commitment as annotated above.

FOLLOW-UP

The following meetings and activities are scheduled for on-going discussions and progress reporting:

- December 5, 2013 – regularly scheduled Motorola Scorecard meeting
- December 16 & 17, 2013 – RWC executive director and technical staff visit to Motorola Corporate Headquarters, Schaumburg, IL to view staging of new RWC 700 MHz, TDMA/Lifecycle equipment and meeting with Motorola management
- January 2014, follow-up and progress meeting with Motorola, RWC and TRWC management and technical staffs
- January 23, 2014 – progress report to regular meeting of RWC Board of Directors

RECOMMENDATION

This agenda item is for information, discussion and possible follow-up action



BOARD OF DIRECTORS REPORT

TO: Regional Wireless Cooperative (RWC) Board Members Agenda Date: November 21, 2013

FROM: David Felix, RWC Executive Director Item 8

SUBJECT: **Arizona FirstNet**

BACKGROUND

The First Responder Network Authority, FirstNet, has been charged with building a national 4G LTE network for the use of Public Safety and Public Service personnel. It will be a self-sustaining, fee-based network. States will be given the option of Opting In or Opting Out, meaning that either FirstNet or the State will build out the in-state portion of the network. Each individual agency/jurisdiction may decide to use the data network or not.

THE OVERVIEW

- Nationwide Public Safety Broadband Network
- State and Local Implementation Grant Program (SLIGP)
- Next Steps
- What does FirstNet mean to Wireless Cooperatives

RECOMMENDATION

Please continue to track the progress of this effort and provide input and course corrections so that Arizona can get the most value from this national effort.

National Public Safety Broadband Network

A Preview of the State and Local Implementation Grant Program



The public safety community has made significant strides toward strengthening national preparedness and improving emergency communications capabilities. First responders, however, continue to be limited by fragmented networks and decades-old wireless technologies. Deploying a cost-effective, nationwide, public safety wireless broadband network will provide public safety agencies with access to advanced, cutting edge technologies and applications to improve their emergency response capabilities.

The nationwide public safety wireless broadband network needs to be closely aligned to commercial deployments of Long Term Evolution wireless services [*commonly known as 4G LTE*] to keep pace with changes in technology and leverage cost efficiencies. It must also deliver mission critical voice and data communications to public safety agencies in State, Local, and Tribal jurisdictions across the Nation, as well as Federal responders and secondary users (such as transportation or utilities). However, the transition from Land Mobile Radio (LMR) to broadband will not occur overnight, and Federal, State, Local, and Private Sector entities must work together to develop requirements and standards to assure mission critical operations.

In the near term, wireless broadband will complement LMR, not replace it. Wireless broadband does not currently meet the requirements for emergency response voice communications, therefore LMR will be around for years.

Investments in LMR will continue to be necessary now and well into the future. Even with the emergence of broadband, it will still be years before emergency responders can rely on broadband technologies for their mission critical communications. Public safety must continue LMR investments as appropriate in this context.

FirstNet has been tasked with building a nationwide wireless public safety broadband network (NPSBN) to be used by Federal, Tribal, State and Local Public Safety Agencies. Once built out, the NPSBN will be run and maintained by FirstNet as a self-supporting, fee-based network.

- Some agencies already use data (air-cards), but 4G LTE will allow for more and faster data – video, building plans, real-time GIS mapping, etc.
- What will this cost? No one knows for sure, however, Arizona should be prepared to participate in the advancements which are offered.

Federal legislation:

- Provides \$7B for the build out of the national public safety broadband network
- Allocates the D-block spectrum to Public Safety
- Requires FirstNet to work with State, Tribal and Local entities
- Allows for funding through Public-Private Partnership and the sharing of spectrum
- Provides \$135M nationally for states to perform outreach and collect data for input into planning by FirstNet on the national network

(over)

www.azpsic.gov

Public Safety Interoperable Communications Office

National Public Safety Broadband Network

A Preview of the State and Local Implementation Grant Program

State's Role:

- To inform the agencies/jurisdictions of the project timeline, progress and the impacts of the new technology on current operations. (see SLIGP Phase 1 below)
- To collect the State, Tribal and Local requirements, coverage, possible participants, critical infrastructure and special circumstances (see SLIGP Phase 2 below)
- To work with FirstNet on assuring our requirements are communicated and to assist in figuring how to meet the statewide needs
- To assess whether or not the RFP supplied by FirstNet is adequate for statewide needs

The State and Local Implementation Grant Program (SLIGP) is funded at \$135M nationwide with an 80/20 split. It consists of two phases:

- Introduction and Outreach – how the NPSBN may impact current governance and operations
- Data collection – validate agency data, possible participants and possible shared infrastructure

Unlike Department of Homeland Security (DHS) grants where funds are available locally – this is a State level grant where the State works with Local and Tribal entities that provide input for inclusion into a response to FirstNet.

Phase 1 – Introduction and outreach program

- Background & Goal
- Governance – National, State, Regional and Local
- Applications and demonstrations
- Introduction to Survey
- Collecting requirements – agency validation, coverage, possible participant pool
- Expectations on timing and costs
- Funding and business model

Phase 2 – Data collection

- Data collection defined by FirstNet/NTIA
- Data collection driven by our State needs for coverage requirements
- Possible infrastructure sharing or public/private partnerships to reduce costs

Outreach and Data collection will cover Law Enforcement, Fire, Emergency Medical Services, Corrections, PSAP/dispatch, *ADOT and County DOTs, Public Works, Water Departments, etc.*

SLIGP Status: The PSIC Office has submitted Arizona's Grant and is awaiting the award announcement

How to get involved and stay aware?

- Please track progress on the Broadband page: <http://www.azpsic.gov/library/broadband/>
- Sign up for our interested parties email list: <http://www.azpsic.gov/news/default.htm>

Michael Britt, PhD – 602.300.2633 Michael.Britt@azdoa.gov

www.azpsic.gov

Public Safety Interoperable Communications Office



BOARD OF DIRECTORS REPORT

TO: Regional Wireless Cooperative (RWC) Board Members Agenda Date: November 21, 2013

FROM: David Felix, RWC Executive Director Item 9

SUBJECT: **LOCUS DIAGNOSTX TOOL OVERVIEW**

BACKGROUND

The RWC Operations Workings Group (OWG) is responsible for providing feedback and recommendations for the on-going operation of the RWC network. To carry out this responsibility, the OWG identifies methods and tools to more efficiently analyze all components of the system to ensure system health. The RWC OWG and Executive Committee were recently briefed and discussed the testing of the “*Locus DiagnostX*” radio diagnostic tool for possible purchase and use on the RWC network.

THE ISSUE

The *Locus Diagnostic Over-the-Air Waveform Analyzer*, identifies, verifies and analyzes the health and field performance of any portable or mobile trunked radio in a network 24 hours a day, 7 days week without user interaction while the radios are operational and deployed in the field. Some of the advantages of this tool are:

- Monitors the Inbound Control Channel (Uplink), capturing and analyzing radio performance data
- Detects in real time , RF Frequency Errors, Frequency Error Changes at Start, Frequency Variations
- Identifies frequency deviations and continuously displays the radio status by ID
- Installs at existing RF sites or mobile command centers and connects to the sites RX antenna multi-coupler or to its own unfiltered antenna.
- Multiple units can be networked to provide system wide coverage with real time field performance analysis of the radios stored in a single database.
- Aids in the discovery of intermittent radio’s performance, evaluates the radio’s access to the system and resolves radio versus network issues.
- Stand-alone, non-intrusive and has no impact on the radio network.
- Portability allows it to be moved to multiple sites if required for additional area coverage.

- Can be installed on any computer on the network and continuously produces a wide variety of reports on all types of radio status while they are operating in the field

The price of each Locus unit is approximately \$58,000. Purchase of 3 units would total approximately \$174,000 plus an annual maintenance cost of \$20,000. These totals have been included in the 2014/2015 and 5 year budget estimates.

RECOMMENDATION

This briefing is for information only. The OWG will conduct additional analysis of the Locus units before making a formal recommendation for purchase and deployment.