

TRWC Board of Directors Meeting

February 25, 2015 at 10:30AM Conference Bridge: 480-644-6120 Pin: 560285 Town of Gilbert – Room 233 50 E. Civic Center Drive Gilbert, AZ 85296

Members of the public may address the Board on any item. Please complete a "Request to Speak Card", located at the entry of the room and promptly turn it in to the Executive Director (or designee). There is a time limit of three minutes for comments.

Agenda

- 1) Call to Order & Opening Comments Chairman Kross
 - a. Materials, Roll Call, and Sign-in Sheet
 - b. Speaker Cards & Requests
 - c. Audio Recording
- 2) Public Comment Chairman Kross

Members of the public may address the Board on items not on the printed agenda. Please complete a "Request to Speak Card", located at the entry of the room and turn it in to the Executive Director (or designee) prior to the beginning of the meeting. There is a time limit of three minutes for comments.

3) Discussion and Action on Board Meeting Minutes - Chairman Kross

September 25th 2014 TRWC Board Meeting Minutes

- 4) Discussion and Possible Action on Committee & Working Group Updates
 - a. User Group Update Rob Duggan (Chairman)
 - Hazard Zone Communications Consulting Status Rajit Jhaver (Federal Engineering)
 - b. Governance Working Group Gary Bradbury & Dale Shaw
 - c. Executive Committee Update Wes Kemp and David Hagar (Co-chairs)
- 5) Discussion and Possible Action on TRWC 2015/2016 Fiscal Year Budget Dale Shaw

TRWC 2015-2016 Budget - Sherry McGlade & Randy Thompson

- 6) Discussion and Possible Action on Network Administrator Updates:
 - a. Budget & Finance Overview Sherry McGlade
 - b. Network Performance Overview Randy Thompson
- 7) Next Meeting(s):

TRWC Board Meeting - March 30, 2015 1PM to 3PM

8) Adjournment - Chairman Kross



TRWC Board of Directors Meeting Minutes

September 25, 2014 - To follow the 9AM RWC/TRWC Joint Board Meeting Maricopa Association of Governments 302 North 1st Avenue 2nd Floor Phoenix, AZ 85003

Members of the public may address the Board on any item. Please complete a "Request to Speak Card", located at the entry of the room and promptly turn it in to the Executive Director (or designee). There is a time limit of three minutes for comments.

Directors & Staff Attendees

John Kross, Gary Bradbury, Dave Montgomery, Jerry Ward (by teleconference), John Pombier, Marc Skocypec, Dale Shaw, Bill Anger, Randy Thompson, Sherry McGlade

Minutes

- 1) Call to Order & Opening Comments Chairman Kross
 - a. Materials, Roll Call, and Sign-in Sheet
 - b. Speaker Cards & Requests
 - c. Audio Recording

Chairman Kross called the meeting to order and welcomed the attendees, provided instruction on the process for public comment, and reminded participants that the meeting audio was is recorded. A roll call was conducted and a quorum was confirmed.

2) Public Comment - Chairman Kross

Members of the public may address the Board on items not on the printed agenda. Please complete a "Request to Speak Card", located at the entry of the room and turn it in to the Executive Director prior to the beginning of the meeting. There is a time limit of three minutes for comments.

No Public Comment requests were received.

3) <u>Discussion and Action on Board Meeting Minutes</u> - Chairman Kross

June 11th TRWC Board Meeting Minutes

John Pombier motioned to approve the <u>06/11/14 TRWC Board Meeting Minutes</u> and Marc Skocypec seconded. All were in favor; the motion passed.

- 4) <u>Discussion and Possible Action on Committee & Working Group Updates</u>
 - a. Executive Committee Update Wes Kemp and David Hagar (Co-chairs)
 - b. User Group Update Rob Duggan (Chairman)

Wes Kemp provided a brief overview of the recent work of the Executive Committee and the User Group. He shared that the Executive Committee's efforts have been focused on the upgrade covered in item 5 and the review of the recent Governance Working Group (GWG) materials. He discussed that the GWG

pace has been adequate and that the Executive Committee Chairs will stay engaged and provide the feedback of the TRWC partners.

Regarding the VHF [Hazard Zone Communications] project Mr. Kemp shared that great progress has been made using the Board authorized consulting contract. He said that modeling of in-building coverage has occurred and it is expected that regional operation consistency issues will be eventually addressed through the effort. He went on to share that interested groups, including the User Group and Executive Committee, will be involved through the budget preparation process.

5) <u>Discussion and Action on \$7,696,564.97 Contract for TRWC Network Upgrade</u> - Dave Hagar & Cori Hayes

Consider Approval of \$7,696,564.97 Contract with Motorola Solutions, and authorize the execution of related agreements, to facilitate the TRWC Network Upgrade.

Dave Hagar provided an overview of the recent work on the TRWC Network Upgrade and recommended action as outlined in the report. He shared that the recommendation is to accelerate the original plan to to take advantage of the noted opportunities to yield saving to the members.

Marc Skocypec asked if given the multi-year nature of the commitment that it will be subject to customary fiscal funding provisions. Executive Director Shaw responded that Mesa, as the Administrative Manager, will utilize fiscal funding language as usual included in their contracts. Randy Thompson confirmed that there is "non-appropriation" language in the contract. Mr. Shaw went on the clarify that each fiscal year budget will include any remaining commitment as part of the TRWC budget adoption process.

Mr. Thompson shared that there had been some changes, through very recent negotiations, to the reported contract totals that are favorable to the members but not reflected in the published report.

Gary Bradbury motioned to approve at a revised project total of \$7,169,138.13 and authorize execution of related agreements as recommended in the report. Jerry Ward seconded. All were in favor; the motion passed.

6) Discussion and Possible Action on Network Administrator Updates:

a. Budget & Finance Overview - Sherry McGlade

Sherry McGlade provided a verbal summary of the <u>Year To Date Actuals Report</u> and <u>Budget Fiscal Year</u> ended June 30, 2104

b. Network Performance Overview - Randy Thompson

Randy Thompson provided a verbal summary of the <u>Administrator Update</u>. In addition, he also updated the Board on the status of the project to improve connectivity to TRWC sites through fiber optic cabling. He said that the project is with Mesa Engineering and there has not been any expenditures to date due to a slower than anticipated start.

7) Next Meeting(s):

Joint TRWC/RWC Board Meeting - Nov 20, 2014 9AM to 12PM

Chairman Kross shared the upcoming meeting schedule.

8) Adjournment - Chairman Kross

John Pombier motioned to adjourn the meeting and Gary Bradbury seconded. All were in favor; the motion passed. Chairman Kross thanked everyone and adjourned the meeting.



PROPOSED FISCAL YEAR 2015 / 2016 BUDGET DETAIL OF OPERATIONS, MAINTENANCE AND CAPITAL

BOARD PRESENTATION FEBRUARY 25, 2015

TRWC Operating & Maintenance Budget And Capital Improvement Costs RECONCILIATION BETWEEN FY 14/15 PROJECTED AND 15/16 BUDGET

	FY 14/15 BUDGET		FY 14/15 PROJECTED		FY 15/16 BUDGET			Change		
1. LABOR	-		•						g	
Cost	\$	467,115	\$	446,845		\$	476,955	\$	30,110	
2. NON LABOR	\$	942,700	\$	1,059,977	*	\$	1,094,900	\$	34,923	
3. TOTAL OPERATING & MAINTENANCE BUDGET		\$1,409,815		\$1,506,822			\$1,571,855		\$65,033	
4. MONTHLY AIRTIME HOURS		992		992			995			
5. RECONCILIATION OF BUDGET INCREASE: a.Labor 5.5% increase- additional hours; step; Mesa internation. b. Reduce consulting for VHF c. Reduce legal for ARCRA d. Grant Writing e. Motorola Contract increase f. Other increases TOTAL VARIANCE	al Le	gal hours (1	ho	ur per week)					\$30,110 (\$60,000) (\$15,000) \$10,000 \$98,011 \$1,912	
TOTAL VARIANCE									ψ03,033	
6. Cost Per Airtime Hour	\$	118	\$	127		\$	132			
7. Capital Network Reliability Improvements		\$574,750		\$287,375			\$5,407,050		\$5,119,675	
Cost Per Airtime Hour		\$48		\$24			\$453		\$429	

^{*}Note - includes carryforward from prior year of \$250K for VHF consulting

TRWC VOICE SUMMARY FISCAL YEAR 2015 / 2016	FY15/16 Proposed Budget	TRW	C FY 16/17	TRWC FY 17/18	TRWC FY 18/19	TRWC FY 19/20	TRWC FY 20/21	TRWC FY 21/22	TRWC FY 22/23
ROLLING 6 MONTH AVG AS OF 12/31/14	995		995	995	995	995	995	995	995
AIRTIME PERCENTAGE									
MESA	73.50%		73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%
GILBERT	17.48%		17.48%	17.48%	17.48%	17.48%	17.48%	17.48%	17.48%
SUPERSTITION SPRINGS FIRE & MEDICAL	0.48%		0.48%	0.48%	0.48%	0.48%			
APACHE JUNCTION	7.32%		7.32%	7.32%	7.32%	7.32%			7.32%
QUEEN CREEK	0.28%		0.28%	0.28%	0.28%	0.28%		0.28%	
SOUTHWEST AMBULANCE	0.91%		0.91%	0.91%	0.91%	0.91%			
RIO VERDE	0.03%		0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
TOTAL	100.00%		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Labor Non Labor	\$ 476,955	\$	486,494	\$ 496,224	\$ 506,148	\$ 516,271	\$ 526,597	\$ 537,129	\$ 547,871
TOTAL OTHER SERVICES	376,300		292,885	299,621	279,747	286,182	292,764	299,497	306,386
TOTAL COMMODITIES	718,600		727,661	744,397	761,518	779,033	796,951	815,281	834,032
Total Operating & Maintenance	\$ 1,571,855	\$	1,507,040	\$ 1,540,242	\$ 1,547,414	\$ 1,581,486	\$ 1,616,311	\$ 1,651,907	\$ 1,688,289
ANNUAL ESTIMATED REVENUE: OPERATING & MAINTENANCE									
MESA	\$ 1,155,313	\$	1,107,674	\$ 1,132,078	\$ 1,137,349	\$ 1,162,392	\$ 1,187,989	\$ 1,214,151	\$ 1,240,893
GILBERT	274,760	*	263,431	269,234	270,488	276,444	282,531	288,753	295,113
SUPERSTITION SPRINGS FIRE & MEDICAL	7,545		7,234	7,393	7,428	7,591	7,758	7,929	8,104
APACHE JUNCTION	115,060		110,315	112,746	113,271	115,765	118,314	120,920	123,583
QUEEN CREEK	4,401		4,220	4,313	4,333	4,428	4,526	4,625	4,727
SOUTHWEST AMBULANCE	14,304		13,714	14,016	14,081	14,392	14,708	15,032	15,363
RIO VERDE	472		452	462	464	474	485	496	506
TOTAL	\$ 1,571,855	\$	1,507,040	\$ 1,540,242	\$ 1,547,414	\$ 1,581,486	\$ 1,616,311	\$ 1,651,907	\$ 1,688,289
MONTHLY FEE PER AIRTIME UNIT: OPERATING & MAINTENANCE	\$ 132	\$	126	\$ 129	\$ 130	\$ 132	\$ 135	\$ 138	\$ 141
CAPITAL IMPROVEMENT COSTS (See page 5)									
NETWORK RELIABILITY IMPROVEMENTS:	\$ 5,407,050	\$	2,771,370	\$ 2,371,370	\$ 2,393,626	\$ 2,610,075	\$ 2.248.778	\$ 872,658	\$ 931,325
NETWORK RELIABILITY IN TROVENERYO.	Ψ 3,407,030	Ψ	2,771,370	Ψ 2,371,370	Ψ 2,393,020	Ψ 2,010,073	ψ 2,240,770	Ψ 072,030	ψ 931,323
ANNUAL ESTIMATED REVENUE: CAPTIAL									
MESA	\$ 4,063,928	\$	2,108,912						
GILBERT	966,496		501,548	425,358	422,248	460,431	396,696	153,941	164,291
SUPERSTITION SPRINGS FIRE & MEDICAL	26,540		13,772	11,680	11,595	12,643	10,893	4,227	4,511
APACHE JUNCTION	332,946		138,242	138,242	176,823	192,812	166,122	64,465	68,799
QUEEN CREEK RIO VERDE	15,482 1.659		8,034 861	6,814 730	6,764 725	7,375 790	6,354 681	2,466 264	2,632 282
KIO VERDE	1,009		801	730	725	790	681	264	282
TOTAL	\$ 5,407,050	\$	2,771,370	\$ 2,371,370	\$ 2,393,626	\$ 2,610,075	\$ 2,248,778	\$ 872,658	\$ 931,325
MONTHLY FEE PER AIRTIME UNIT: CAPITAL	\$ 453	_\$	232	\$ 199	\$ 200	\$ 219	\$ 188	\$ 73	\$ 78

CASH FLOW FOR FISCAL YEAR 2015 / 2016 CAPITAL EXPENSES OPERATING AND MAINTENANCE EXPENSES QUEEN MONTH MESA GILBERT SFM CREEK SWA RIO VERDE MESA GILBERT SFM CAJ QUEEN CREEK RIO VERDE CAJ January 96,276 \$ 22,897 \$ 629 \$ 9,588 \$ 367 1,192 \$ 39 338,661 \$ 80,541 \$ 2,212 \$ 27,745 \$ 1,290 \$ 138 February 96,276 22,897 629 9,588 367 1,192 39 338,661 80,541 2,212 27,745 1,290 138 March 96,276 22,897 629 9,588 367 1,192 39 338,661 80,541 2,212 27,745 1,290 138 9,588 367 338,661 80,541 27,745 138 April 96,276 22,897 629 1,192 39 2,212 1,290 May 96,276 22,897 629 9,588 367 1,192 39 338,661 80,541 2,212 27,745 1,290 138 June 96,276 22,897 629 9,588 367 1,192 39 338,661 80,541 2,212 27,745 1,290 138 July 96,276 22,897 629 9,588 367 1,192 39 338,661 80,541 2,212 27,745 1,290 138 August 96,276 22,897 629 9,588 367 1,192 39 338,661 80,541 2,212 27,745 1,290 138 September 96,276 22,897 629 9,588 367 1,192 39 338,661 80,541 2,212 27,745 1,290 138 October 96,276 22,897 629 9,588 367 1,192 39 338,661 80,541 2,212 27,745 1,290 138 November 96,276 22,897 629 9,588 367 1,192 39 338,661 80,541 2,212 27,745 1,290 138 December 96,276 22,897 629 9,588 367 1,192 39 338,661 80,541 2,212 27,745 1,290 138 Total \$ 1,155,313 \$ 274,760 \$ 7,545 \$ 115,060 \$ 4,401 \$ 14,304 \$ 472 4,063,928 \$ 966,496 \$ 26,540 \$ 332,946 \$ 15,482 \$ 1,659

TRWC Operating & Maintenance Budget Summary of Labor and Non-labor

Summary of L	abor and Non-labor		Y2014-15 Budget		Y2014-15 ected Actuals		/2015-16 esed Budget	TRW	C FY 16/17 T	RWC FY 17/18 T	RWC FY 18/19 TR	WC FY 19/20 TR	RWC FY 20/21 TR	WC FY 21/22 TR	WC FY 22/23
Object Co ESCALATION Labor									2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
	1101 Salaries and Wages	\$	467,115	\$	446,845	\$	476,955	\$	486,494 \$	496,224 \$	506,148 \$	516,271 \$	526,597 \$	537,129 \$	547,871
	Total Labor	\$	467,115	\$	446,845	\$	476,955	\$	486,494 \$	496,224 \$	506,148 \$	516,271 \$	526,597 \$	537,129 \$	547,871
ESCALATION	FACTOR								2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%
Non Labor	DMINISTRATIVE - OTHER SERVICES														
GENERAL & A	2106 Prof Services - Consulting	\$		\$	-	\$	_	\$	- \$	- \$	- \$	- \$	- \$	- \$	_
	2106 Carryforward from PY - consulting	•	250,000		150,000	•	90,000	•	•	•	•	•	,	·	
	2115 Temp Services		75,000		92,903		90,000		92,070	94,188	96,354	98,570	100,837	103,156	105,529
	2201 Utilities-Communications Bldg		33,000		35,000		31,500		32,225	32,966	33,724	34,500	35,293	36,105	36,935
	2201 Utilities-Sites[50%TOPAZ,25%MW]]	41,000		38,845		41,000		41,943	42,908	43,895	44,904	45,937	46,993	48,074
	2224 Repairs & Maint Outside		10,400		10,400		10,400		10,639	10,884	11,134	11,390	11,652	11,920	12,194
	2225 Equipment Usage (Vehicles)		20,000		16,791		20,000		20,460	20,931	21,412	21,904	22,408	22,924	23,451
	2903 Training (Education)		-				-		-		-				-
	2180 Prof Services - Other		3,100		13,100		13,100		13,401	13,710	14,025	14,347	14,677	15,015	15,360
	2181 Contract - Preventative Generators2111 Prof Services - Legal		10,000		-		- 27 000		- 27.054	- 20.722	-	-	13.445	40.754	- 44.070
	2180 Prof Services - Legal 2180 Prof Services - Grant Writing		52,000		52,000		37,000 10,000		37,851 10,230	38,722 10,465	12,847 10,706	13,142 10,952	13,445	13,754 11,462	14,070 11,725
	2210 Telephone - Local		5,000		5,430		5,700		5,831	5,965	6,102	6,243	6,386	6,533	6,684
	2109 Ins. Premiums - Agencies		10,600		10,600		10,600		10,844	11,093	11,348	11,609	11,876	12,150	12,429
	2801 Association Dues		10,000		10,000		10,000		10,044	11,000	11,040	11,000	11,070	12,100	12,423
2802	2. 2809 Shaw Butte Land Rental		15.000		14.734		15,000		15.345	15,698	16,059	16,428	16.806	17.193	17.588
	All Other Services		2,000		2,000		2,000		2,046	2,093	2,141	2,190	2,241	2,292	2,345
	TOTAL OTHER SERVICES	\$	527,100	\$	441,803	\$	376,300	\$	292,885 \$	299,621 \$	279,747 \$	286,182 \$	292,764 \$	299,497 \$	306,386
GENERAL & A	DMINISTRATIVE - COMMODITIES	_		_		_		_							
	3116 Non Cap Assets	\$	50,000		50,086	\$	50,000	\$	51,150 \$	52,326 \$		54,761 \$	56,021 \$	57,309 \$	58,627
	3118 Contract - Preventative Motorola		577,000		530,989		629,000		636,000	650,628	665,592	680,901	696,562	712,583	728,972
	3118 Software Maint-Mainsaver, Juniper		20,000		20,326		21,000		21,483	21,977	22,483	23,000	23,529	24,070	24,623
	3131 Materials & Repair Parts - Outside 3000 All Other Commodities		17,600 1,000		16,772		17,600 1.000		18,005 1,023	18,419 1.047	18,843 1.071	19,276 1,095	19,719 1,120	20,173 1.146	20,637 1,173
	TOTAL COMMODITIES	\$	665,600	\$	618,174	\$	718,600	\$	727,661 \$	744,397 \$	761,518 \$	779,033 \$	796,951 \$	815,281 \$	834,032
		<u> </u>	000,000	<u> </u>	0.10,17.1		7.10,000	<u> </u>	727,001 ψ	711,007 ψ	701,010 \$	770,000 ψ	100,001 ψ	010,201 	001,002
	Total Operating & Maintenance			\$	1,506,822	\$	1,571,855	\$	1,507,040 \$	1,540,242 \$	1,547,414 \$	1,581,486 \$	1,616,311 \$	1,651,907 \$	1,688,289
ROLLING 6 M	ONTH AVG AS OF 12/31/14		959		995		995		995	995	995	995	995	995	995
AIRTIME PER	CENTAGE														
MESA							73.50%		73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%
GILBERT							17.48%		17.48%	17.48%	17.48%	17.48%	17.48%	17.48%	17.48%
	N SPRINGS FIRE & MEDICAL						0.48%		0.48%	0.48%	0.48%	0.48%	0.48% 7.32%	0.48%	0.48% 7.32%
APACHE JUNG QUEEN CREE							7.32% 0.28%		7.32% 0.28%	7.32% 0.28%	7.32% 0.28%	7.32% 0.28%	0.28%	7.32% 0.28%	0.28%
SOUTHWEST							0.26%		0.26%	0.26%	0.28%	0.26%	0.26%	0.28%	0.26%
RIO VERDE	TWIDOL WOL						0.03%		0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
TOTAL							100.00%		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
TOTAL							100.0078		100.0078	100.0076	100.0076	100.0076	100.0078	100.0076	100.0078
	MATED REVENUE: OPERATING & MAIN	TENANC	E												
MESA						\$	1,155,313	\$	1,107,674 \$	1,132,078 \$	1,137,349 \$	1,162,392 \$	1,187,989 \$	1,214,151 \$	1,240,893
GILBERT							274,760	\$	263,431 \$	269,234 \$	270,488 \$	276,444 \$	282,531 \$	288,753 \$	295,113
	N SPRINGS FIRE & MEDICAL						7,545	\$	7,234 \$	7,393 \$		7,591 \$	7,758 \$	7,929 \$	8,104
APACHE JUNG							115,060	\$	110,315 \$	112,746 \$		115,765 \$	118,314 \$	120,920 \$	123,583
QUEEN CREE							4,401	\$	4,220 \$	4,313 \$	4,333 \$	4,428 \$	4,526 \$	4,625 \$	4,727
SOUTHWEST RIO VERDE	AMBULANCE						14,304 472	\$ \$	13,714 \$ 452 \$	14,016 \$ 462 \$		14,392 \$ 474 \$	14,708 \$ 485 \$	15,032 \$ 496 \$	15,363 506
								<u> </u>							
TOTAL						\$	1,571,855	\$	1,507,040 \$	1,540,242 \$	1,547,414 \$	1,581,486 \$	1,616,311 \$	1,651,907 \$	1,688,289
MONTHLY FE	E PER AIRTIME UNIT: OPERATING & MA	INTENA	NCE			\$	132	\$	126 \$	129 \$	130 \$	132 \$	135 \$	138 \$	141

TRWC Operating & Maintenance Budget Summary of Labor and Non-labor

—	FY2014-15 Budget	FY2014-15 Projected Actuals	FY2015-16 Proposed Budget	TRW	C FY 16/17	TRWC FY 17/18	TRWC FY 18/19	TRWC FY 19/20	TRWC FY 20/21	TRWC FY 21/22	TRWC FY 22/23
Object Code Description											
CAPITAL IMPROVEMENT COSTS (See page 5) NETWORK RELIABILITY IMPROVEMENTS:											
A.Fiber Optic Cable to Radio Network Backbone Sites (reliab. \$	574,750	\$ 287,375	\$ 1,437,542	\$	1,437,542						
B. Fire VHF (budgetary rough order of magnitude estimate) C. TOPAZ Voice Radio Network Upgrade (CP0090)	-	1,800,000 (1,800,000)	900,000 3,633,828 (564,320)	\$ \$	900,000 433,828		\$ 433,828	\$ 433,828			
D. Radio Sites Emergency Power Upgrade (CP0094)	-	-	(\$ -	\$ 198,298	\$ 198,298	\$ 198,298	
E. Regional Communications Authority (CP0438) F. Wireless Backhaul (Microwave) Network Upgrade (CP009 G. TOPAZ Voice Radio Network Coverage Improvements (C	-	- - -			:	\$ -	\$ 750,000 \$ 1,209,798 \$ -	\$ 1,253,003 \$ 724,946		\$ 674,360	\$ 931,325
TOTAL <u>\$</u>	574,750	\$ 287,375	\$ 5,407,050	\$	2,771,370	\$ 2,371,370	\$ 2,393,626	\$ 2,610,075	\$ 2,248,778	\$ 872,658	\$ 931,325
ANNUAL ESTIMATED REVENUE: CAPTIAL											
MESA \$,		\$ 4,063,928	\$	2,108,912						
GILBERT SUPERSTITION SPRINGS FIRE & MEDICAL	105,524 2,644		966,496 26,540		501,548 13,772	425,358 11.680	422,248 11.595	460,431 12,643	396,696 10.893	153,941 4,227	164,291 4.511
APACHE JUNCTION	33,910		332,946		138,242	138,242	176,823	192,812	166,122	64,465	68,799
QUEEN CREEK	1,322		15,482		8,034	6,814	6,764	7,375	6,354	2,466	2,632
RIO VERDE	1,322	87	1,659		861	730	725	790	681	264	282
TOTAL	574,750	\$ 287,375	\$ 5,407,050	\$	2,771,370	\$ 2,371,370	\$ 2,393,626	\$ 2,610,075	\$ 2,248,778	\$ 872,658	\$ 931,325
MONTHLY FEE PER AIRTIME UNIT: CAPITAL \$	50	\$ 24	\$ 453	\$	232	\$ 199	\$ 200	\$ 219	\$ 188	\$ 73 5	\$ 78

CASH FLOW FOR FISCAL YEAR 2015 / 2016

		OF	ERATING AND MA	INTENANCE EXPE	NSES						CAPIT	AL EXPENSES	3	
						QUEEN								
MONTH	MESA	(SILBERT	SFM	CAJ	CREEK	SWA	RIO VERDE	MESA	GILBERT	SFM	CAJ	QUEEN CREEK	RIO VERDE
January	\$	96,276 \$	22,897 \$	629 \$	9,588 \$	367 \$	1,192	39	\$ 338,661	\$ 80,541 \$	2,212 \$	27,745	\$ 1,290	\$ 138
February		96,276	22,897	629	9,588	367	1,192	39	338,661	80,541	2,212	27,745	1,290	138
March		96,276	22,897	629	9,588	367	1,192	39	338,661	80,541	2,212	27,745	1,290	138
April		96,276	22,897	629	9,588	367	1,192	39	338,661	80,541	2,212	27,745	1,290	138
May		96,276	22,897	629	9,588	367	1,192	39	338,661	80,541	2,212	27,745	1,290	138
June		96,276	22,897	629	9,588	367	1,192	39	338,661	80,541	2,212	27,745	1,290	138
July		96,276	22,897	629	9,588	367	1,192	39	338,661	80,541	2,212	27,745	1,290	138
August		96,276	22,897	629	9,588	367	1,192	39	338,661	80,541	2,212	27,745	1,290	138
September		96,276	22,897	629	9,588	367	1,192	39	338,661	80,541	2,212	27,745	1,290	138
October		96,276	22,897	629	9,588	367	1,192	39	338,661	80,541	2,212	27,745	1,290	138
November		96,276	22,897	629	9,588	367	1,192	39	338,661	80,541	2,212	27,745	1,290	138
December		96,276	22,897	629	9,588	367	1,192	39	338,661	80,541	2,212	27,745	1,290	138
Total	\$	1,155,313 \$	274,760 \$	7,545 \$	115,060 \$	4,401 \$	14,304	472	\$ 4,063,928	\$ 966,496 \$	26,540 \$	332,946	\$ 15,482	\$ 1,659
							9	1.571.855						\$ 5,407,050

TRWC Operating & Maintenance Budget Summary of Labor and Non-labor

Summary of Labor and Non-Jabor	Distribution*		/2014-15 Budget		14-15 d Actuals		Y2015-16 oosed Budget	TR	WC FY 16/17	TRV	NC FY 17/18	TRWC FY 18/19	TRWC FY 19/20	TRWC FY 20/21	TRWC FY	21/22 TF	RWC FY 22/23	TOTAI	L 9 YEARS
CAPITAL IMPROVEMENT COSTS																			<u>.</u>
NETWORK RELIABILITY IMPROVEMENTS:																			
A.Fiber Optic Cable to Radio Network Backbone		\$	574,750	\$	287,375	\$	1,437,542	\$	1,437,542	\$	1,437,542								4,600,001
B. Fire VHF (budgetary rough order of magnitude			-		-		900,000		900,000		500,000								2,300,000
C. TOPAZ Voice Radio Network Upgrade (CP009	90)		-		1,800,000		3,633,828		433,828		433,828	433,828	433,828						7,169,140
				(.	1,800,000)		(564,320)											((2,364,320)
D. Radio Sites Emergency Power Upgrade (CP0			-		-							-	198,298	198,298	198	,298			594,894
E. Regional Communications Authority (CP0438) F. Wireless Backhaul (Microwave) Network Upgr			-		-						-	750,000 1,209,798	1,253,003	1,299,793					750,000 3,762,594
G. TOPAZ Voice Radio Network Coverage Impro			-		-							1,209,798	724,946	750,687	67/	.360	931,325		3,762,594
G. TOFAZ Voice Radio Network Coverage impro	venients (CF0031)		-		•							-	724,940	750,007	07-	,300	931,323		3,001,310
TOTAL		\$	574,750	\$	287,375	\$	5,407,050	\$	2,771,370	\$	2,371,370	\$ 2,393,626	\$ 2,610,075	\$ 2,248,778	\$ 872	,658 \$	931,325	\$ 1	9,893,627
NORMAL ALLOCATION TO DARTHERS												•		•	<u> </u>				
NORMAL ALLOCATION TO PARTNERS MESA	74.17%	\$	430.028	\$	213.160	\$	3.343.104	\$	1.388.089	œ.	1.388.089	\$ 1.775.472	\$ 1.936.023	\$ 1.668.031	¢ 64-	.294 \$	690.810	¢ 1	3.050.071
GILBERT	74.17% 17.64%	Ф	105,524	φ	50,694	Ф	795,067	Ф	330,120	Ф	330,120	422,248	460.431	396.696		,294 \$.941	164,291		3,050,071
SUPERSTITION SPRINGS FIRE & MEDICAL	0.48%		2.644		1,392		21,833		9,065		9.065	11,595	12.643	10,893		,227	4.511		85,225
APACHE JUNCTION	7.39%		33,910		21,229		332,946		138,242		138.242	176,823	192.812	166.122		.465	68.799		1,299,681
QUEEN CREEK	0.28%		1,322		812		12,736		5,288		5,288	6,764	7.375	6,354		,466	2,632		49.715
RIO VERDE	0.03%		1,322		87		1,365		567		567	725	790	681	-	264	282		5,327
<u> </u>																			
TOTAL	100.00%	\$	574,750	\$	287,375	\$	4,507,050	\$	1,871,370	\$	1,871,370	\$ 2,393,626	\$ 2,610,075	\$ 2,248,778	\$ 872	,658 \$	931,325	\$ 1	7,593,627
SPECIAL ALLOCATION TO PARTNERS (VHF)																			
MESA	80.09%	\$	_	\$	_	\$	720.824	\$	720,824	\$	400.458	\$ -	\$ -	\$ -	\$	- \$	_	\$	1,842,105
GILBERT	19.05%	•		*		*	171,429	*	171,429	*	95,238			٠.	*		-	*	438,095
SUPERSTITION SPRINGS FIRE & MEDICAL	0.52%		-		-		4,707		4,707		2,615	-	-	-		-	-		12,030
APACHE JUNCTION	0.00%		-		-		-		-		-	-	-	-		-	-		-
QUEEN CREEK	0.31%		-		-		2,746		2,746		1,526	-	-	-		-	-		7,018
RIO VERDE	0.03%		-		-		294		294		163	-	-	-		-	-		752
TOTAL	100.00%	\$	-	\$	-	\$	900,000	\$	900,000	\$	500,000	\$ -	\$ -	\$ -	\$	- \$	-	\$	2,300,000
TOTAL 0.VEAD ALL 004TION TO - :																			
TOTAL 8 YEAR ALLOCATION TO PARTNERS	74.000/	Φ.	400.000	•	040.400	•	4 000 000	•	0.400.040	•	4 700 540	A 775 470	¢ 4.000.000	¢ 4.000.004	6 04	.004 6	000 040	r 4	4 000 477
MESA GILBERT	74.86%	\$	430,028	\$	213,160	\$	4,063,928	\$	2,108,912	Ф	1,788,546					,294 \$	690,810		4,892,177
SUPERSTITION SPRINGS FIRE & MEDICAL	17.80% 0.49%		105,524 2,644		50,694 1,392		966,496 26,540		501,548 13,772		425,358 11,680	422,248 11,595	460,431 12.643	396,696 10,893		,941 ,227	164,291 4,511		3,541,704 97,255
APACHE JUNCTION	6.53%		33.910		21,229		26,540 332,946		13,772		138,242	176.823	12,643	166.122		.465	4,511 68.799		1,299,681
QUEEN CREEK	0.29%		1,322		812		15,482		8,034		6.814	6,764	7,375	6,354		.466	2,632		56,732
RIO VERDE	0.03%		1,322		87		1.659		861		730	725	7,373	681	4	264	2,032		6,078
_			,-																
TOTAL	100.00%	\$	574,750	\$	287,375	\$	5,407,050	\$	2,771,370	\$	2,371,370	\$ 2,393,626	\$ 2,610,075	\$ 2,248,778	\$ 872	,658 \$	931,325	\$ 1	9,893,627

^{*} Distribution is subject to change subject to rolling 6 month avg airtime percentages and executive committee review.



161 E Sixth PI PO Box 1466 Mesa, Arizona 85211-1466

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Date: February 25, 2014

To: TOPAZ Regional Wireless Cooperative (TRWC) Board of Directors

Through: Dale Shaw, TRWC Executive Director

From: Randy Thompson

Subject: Administrator Update

Capital Projects

1) Lifecycle upgrade to the TOPAZ radio network. The contract with Motorola Solutions has been executed and the initial payment of \$1.8M has been made and the reimbursement from Sprint has been received. The following are some of the completed and upcoming milestones:

- a. Complete
 - i. Factory Acceptance Test
 - ii. Equipment Delivery
 - iii. Equipment Installation
- b. Upcoming
 - i. Equipment power up and stand-alone testing and tuning, February April
 - ii. Transport network testing, May June
 - iii. Next contract payment to Motorola Solutions due July 1, 2015, \$3.6M, \$564K of which is reimbursed by the re-banding settlement with Sprint.
 - iv. Network integration & testing, July August, 2015.
 - v. Cutover, August 25, 2015. The new equipment will be operational on the "rebanded" 800 MHz frequencies.
- 2) Fiber optic cable connectivity to radio network backbone sites. This project will enhance the reliability and capacity of the network that connects the TOPAZ radio sites to the core network equipment. This project is still under design in the City of Mesa Engineering Department.

Operations Summary

System Availability – Please see the system availability chart on page 3. Since the last Administrator update on September 25, 2014, there were three impairments to the network, as follows:

- 1) During the September 8th rain event, the radio site at Mesa Fire Station 205 was disconnected from the system for 192 seconds due to the heavy rain causing an outage of both point-to-point microwave radio connections to the site. A solution is being implemented to provide connection to the site over the City of Mesa fiber optic cable network in addition to the microwave connections.
- 2) On November 5th and 28th, the radio site at Mesa Fire Station 205 was disconnected from the system for a total of 12 seconds due to an equipment failure. The equipment causing this problem will be replaced as part of the Lifecycle Upgrade project reported above.

For calendar year 2014, the average system availability was 99.999%, and for fiscal year 2015, the average system availability has been 99.999% through January, 2015.

Airtime and Radio Counts – the following charts are included:

- 1) Average airtime usage by member for fiscal year 2015 through January, 2015
- 2) Average number of radios enabled by member for fiscal year 2015 through January, 2015
- 3) Average airtime usage by service type for fiscal year 2015 through January, 2015
- 4) Average number of radios enabled by service type for fiscal year 2015 through January, 2015

Peak Channel Usage – the following charts are included:

- 1) Peak channel usage for each site for August, 2014
- 2) Peak channel usage for each site for September, 2014
 - During the heavy rain event of September 8th, radio system usage was no heavier than most weekdays. The peak usage for September actually occurred on the 24th.
- 3) Peak channel usage for each site for October, 2014
 - You will note on the Thompson Peak chart for October, it appears to show no data after October 7th (the date the site was upgraded and switched to the re-banded frequencies). This is because the method of measuring peak channel usage for Thompson Peak was found to be incorrect, and was over-stating the peak number of channels in use. Thompson Peak continues to be our most lightly-loaded site.
- 4) Peak channel usage for each site for November, 2014
- 5) Peak channel usage for each site for December, 2014
- 6) Peak channel usage for each site for January, 2015

Upcoming Events:

- 1) TOPAZ Radio Network A7.14 Upgrade. In preparation for the TOPAZ Lifecycle Upgrade project, the software and core network servers for the TOPAZ radio network will be upgraded to release A7.14 between February 23 and March 5, 2015. This is scheduled to cause two brief periods of "site trunking" on February25th, at 3:15 AM and 5:35 AM.
- 2) The batteries that back up the TOPAZ voice radio network and other equipment at the remote radio sites are 12 years old. These batteries have reached the end of their service life. Normally, these batteries only power the equipment at a radio site for less than a minute while the emergency generator starts and comes up to speed to power the site. However, we size these batteries to power the site for a minimum of 4 hours in the event the emergency generator does not start, so we have time to take the portable generator to the site to provide power. The batteries at 2 of the sites, Twin Knolls North and TRW, will be replaced by Maricopa County when they install the radio equipment for their new radio system at those sites in 2015. The batteries at the Apache Junction Fire Station 262 radio site were replaced on October 9th. The batteries at Apache Junction Fire Station 264 were replaced December 16, 2014. The batteries at the Twin Knolls South site are scheduled to be replaced February 24, 2015.
- 3) There are three City of Mesa Capital Improvement Projects underway on the City of Mesa Communications Building, as follows:
 - a. Upgrade of the building cooling system with two new air cooled chiller units to replace the existing cooling equipment. This project began in February, 2015, and is scheduled for completion by the end of May, 2015.
 - b. Upgrade of the emergency generators to move them out of the basement of the Communications Building into the parking lot east of the mobile radio shop. Work for

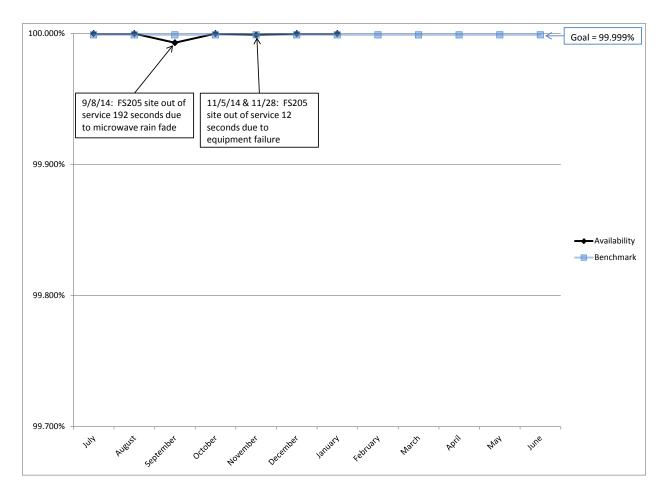
- this project started in February, 2015, and is scheduled for completion by the end of May, 2015.
- c. Lifecycle upgrade of the Uninterruptible Power Supply (UPS) and move it to the 2nd floor the Communications Building so it would not be subject to flooding. Preliminary work for this project began in February, 2015, and is scheduled for completion by the end of May, 2015.
- 4) The TOPAZ equipment on Thompson Peak was replaced on October 7th with new equipment. This upgrade was made possible at no charge to the TRWC members by negotiating with the Salt River Pima-Maricopa Indian Community for their use of space reserved for the TRWC in the Thompson Peak radio site developed jointly with the Arizona Department of Public Safety in exchange for the equipment upgrade. This site was also converted to all 800 MHz frequencies (the old equipment was 5 channels of 800 MHz and 5 channels of 700 MHz), and the 800 MHz frequencies are the "re-banded" frequencies.

Other News:

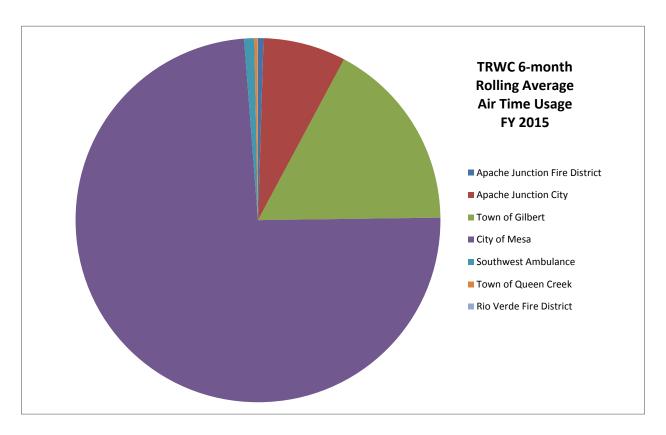
On October 24, 2014, the FCC released a "report and order" (R&O) regarding the 700 MHz Public Safety band. The most important item in this R&O the FCC has eliminated the deadline for "narrowbanding" of the 700 MHz frequencies. "Narrowbanding" would have required that 700 MHz channels employ technology to limit their bandwidth to 6.25 KHz, which in practical terms means Time Division Multiple Access (TDMA) technology (P25 Phase II). This would have required an upgrade (ranging from "just software" to hardware and software) for 700 MHz infrastructure (the TRWC only has one 700 MHz site – Shaw Butte), and replacement of radios operating on 700 MHz (the Motorola XTS5000 portable radios and Motorola XTL5000 mobile radios are not capable of being upgraded to TDMA operation). The Motorola APX6000 & APX7000-series radios are capable of being upgraded to TDMA operation with a software upgrade.

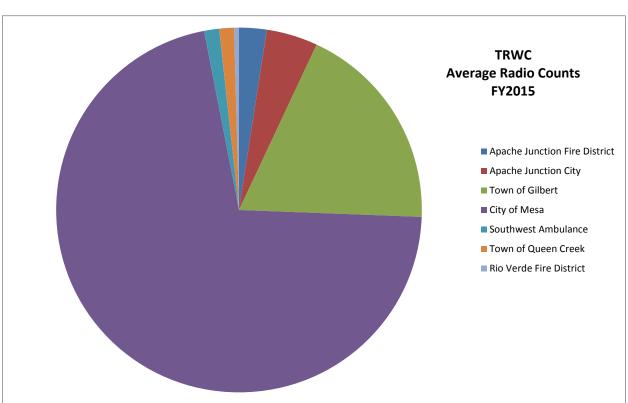
While the FCC narrowbanding mandate has been eliminated, the (Phoenix) Regional Wireless Cooperative (RWC) intends to upgrade their network to TDMA for capacity reasons, as their users subscriber equipment is upgraded to TDMA capability.

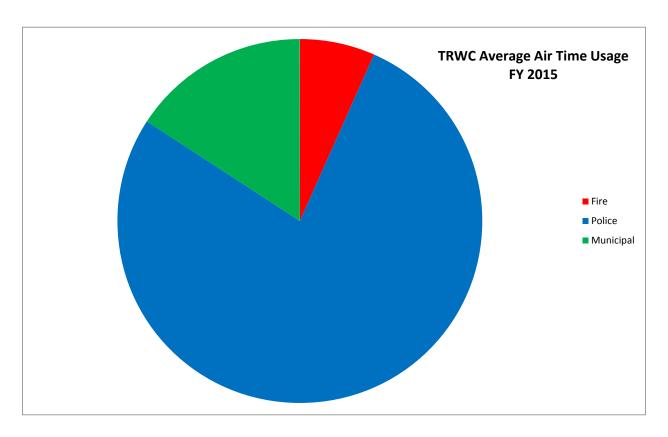
While the elimination of the FCC deadline relieves one pressure on upgrading older subscriber equipment to meet regulatory requirements, it does not change the fact that the existing fleet of radios for most TRWC users is aging and failing at an increasing rate, driving up maintenance and repair costs, thus requiring that plans and funding to upgrade subscriber equipment are still necessary and important. It is also important to keep in mind as equipment upgrade plans are made that the RWC will likely upgrade to TDMA operation within the lifecycle of the upgraded/replaced subscriber equipment. It is possible for infrastructure and subscriber equipment to switch between our current technology (Frequency Division Multiple Access (FDMA) - P25 Phase I) and TDMA, which may relieve some of the pressure to upgrade solely for TDMA capability.

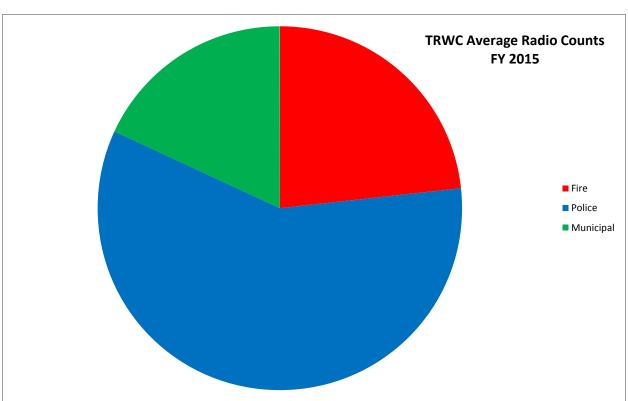


System Availability, July, 2014 through January, 2015

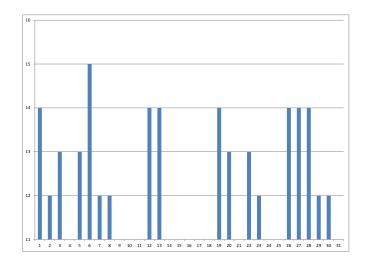




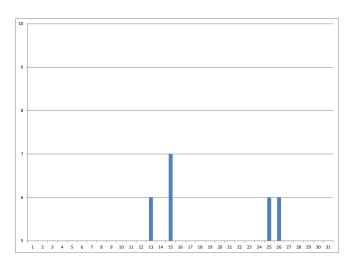




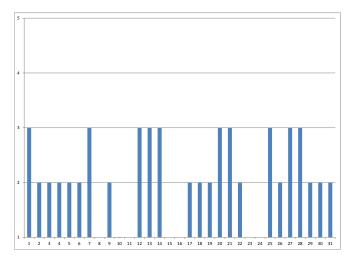
TOPAZ Peak Channel Usage, August, 2014



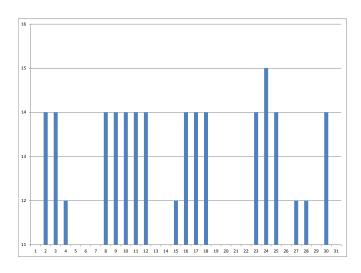
Simulcast Cell



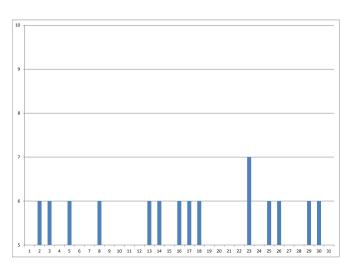
Thompson Peak



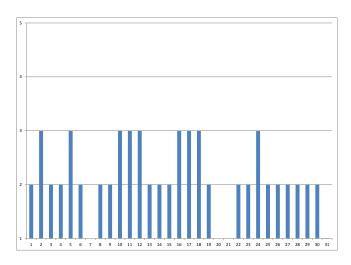
TOPAZ Peak Channel Usage, September, 2014



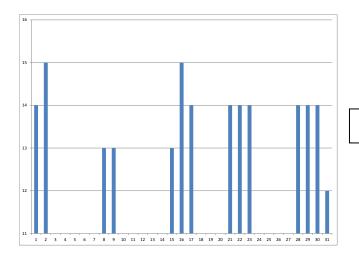
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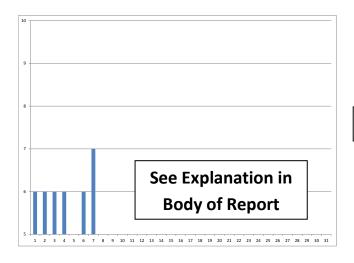
Thompson Peak



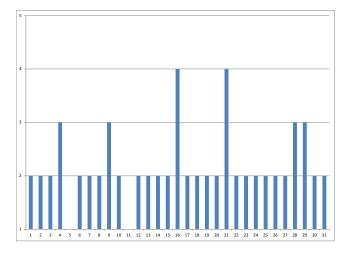
TOPAZ Peak Channel Usage, October, 2014



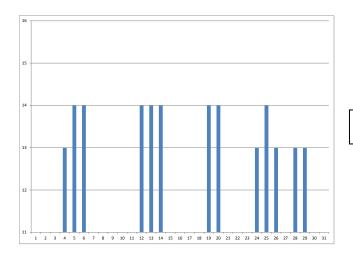
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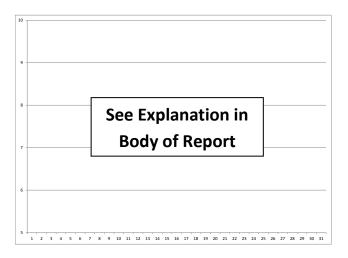
Thompson Peak



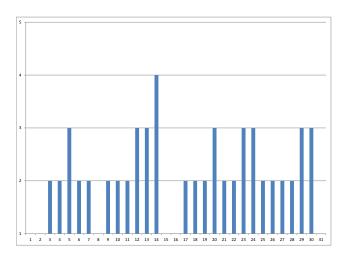
TOPAZ Peak Channel Usage, November, 2014



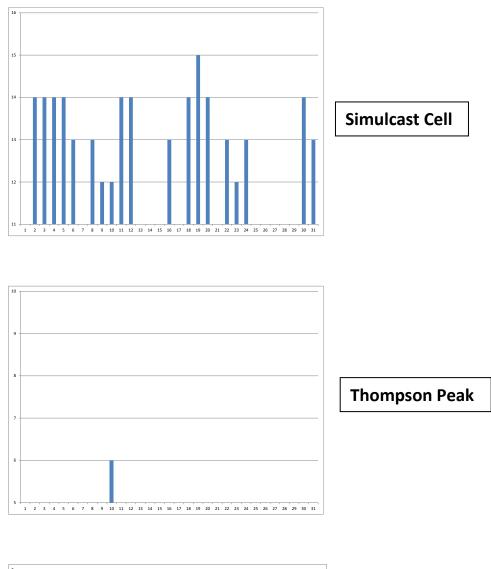
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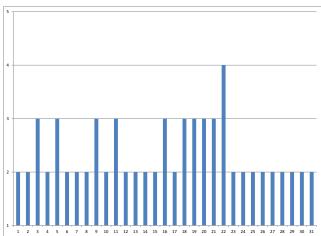


Thompson Peak

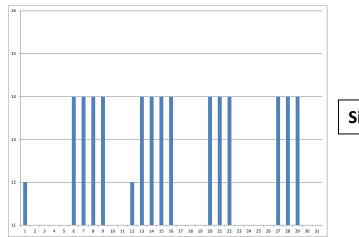


TOPAZ Peak Channel Usage, December, 2014

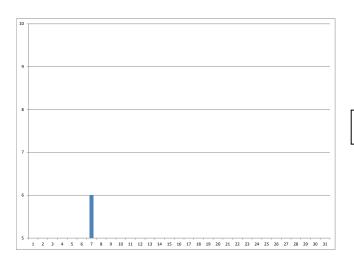




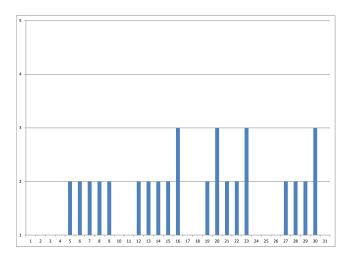
TOPAZ Peak Channel Usage, January, 2015



Simulcast Cell



Thompson Peak





FISCAL YEAR TO DATE ACTUALS THROUGH JANUARY 2015

OPERATIONS, MAINTENANCE AND CAPITAL

PRESENTED TO THE BOARD OF DIRECTORS FEBRUARY 25, 2014

TOPAZ BUDGET TO ACTUAL COMPARISON Fiscal Year 2014 / 2015

Operations and Maintenance Costs	Original Budget	Transfers	Revised Budget	January Units	
Budgeted Airtime Units					
COM	73.96%		73.96%	74.21%	
TOG	17.91%		17.91%	16.79%	
AJFD	0.51%		0.51%	0.47%	
CAJ	6.46%		6.46%	7.28%	
TQC	0.27%		0.27%	0.31%	
RVFD	0.04%		0.04%	0.03%	
SWA	0.85%		0.85%	0.91%	
Total Airtime	100.00%		100.00%	100.00%	
				Current Month	
	Monthly Budget	Rollforward	Revised Monthly	Actuals	% Used
2. Total Monthly Operating & Maintenance Costs	\$117,485	\$20,833	\$138,318	\$95,609	69%

				Current Month		Monthly
	Monthly Budget	Rollforward	Revised Monthly	Actuals	% Used	Variance
2. Total Monthly Operating & Maintenance Costs	\$117,485	\$20,833	\$138,318	\$95,609	69%	-\$42,709
3. Operating & Maintenance Costs	Original Budget	Rollforward	Revised Budget	YTD January	% Used	YTD Variance
COM	\$1,042,699	\$184,900	\$1,227,599	\$826,608	79%	
TOG	\$252,498	\$44,775	\$297,273	\$197,475	78%	
AJFD	\$7,190	\$1,275	\$8,465	\$5,363	75%	
CAJ	\$91,074	\$16,150	\$107,224	\$84,213	92%	
TQC	\$3,807	\$675	\$4,482	\$3,450	91%	
RVFD	\$564	\$100	\$664	\$416	74%	
SWA	\$11,983	\$2,125	\$14,108	\$10,248	86%	
Total Operating & Maintenance Costs	\$1,409,815	\$250,000	\$1.659.815	\$1.127.771	80%	\$21.230

						Current
				Current Month		Month
Capital Projects	Original Budget	Transfers	Revised Budget	Actuals	% Used	Variance
1. Total Monthly Capital Costs	\$574,750		\$574,750	\$26,403	5%	-\$548,347
Fiber Optic Cable to Radio network Backbone Sites						

2. Capital Costs
COM
TOG
AJFD
CAJ
TQC
RVFD
Total Capital Costs

Original Budget	Transfers	Revised Budget	YTD January	% Used	YTD Variance
\$430,028		\$430,028	\$116,343	27%	
\$105,524		\$105,524	\$27,323	26%	
\$2,644		\$2,644	\$762	29%	
\$33,910		\$33,910	\$11,489	34%	
\$1,322		\$1,322	\$472	36%	
\$1,322		\$1,322	\$50	4%	
\$574,750	\$0	\$574,750	\$156,439	27%	-\$418,311

Fiscal Year 2014 / 2015

			Fiscal Year 2014 / 2015								
						YTD	\	/ariance	% Variance		
	Fis	scal Year	,	YTD	Ac	tuals as of		From YTD) Budget		
Description	ı	Budget	Bu	dget*	Jai	n 31, 201 5		Increase/(Decrease)		Variance Explanations (over \$5,000/10%)
·		<u> </u>				•			•	_	
Personnel Services		467,115		272,484		282,196		9,712		4%	
Sub-total Personnel Services	\$	467,115	\$	272,484	\$	282,196	\$	9,712		4%	
		,		,	·	,		,			
Insurance Premiums - Agencies		10,600		10,600		8,094		(2,506)	-2	4%	
Professional Services - Legal		52,000		30,333		30,081		(252)		1%	
Temp Services		75,000		43,750		50,018		6,268	1	4%	D.Shaw time spent on ARCRA
Shaw Butte Land Rental		15,000		15,000		14,734		(266)	-	2%	
Professional Services - Other		3,100		1,808		6,132		4,324	22	9%	Includes charges for Contract: Preventative
Professional Services - Other		3,100		1,808		0,132		4,324	23	9%	Generators
Professional Services - Consulting		-		-		-		-		0%	
Contract - Preventative Generators		10,000		5,833		-		(5,833)	-10		Charges are currently coded to Prof. Svcs
Utilities		74,000		43,167		37,379		(5,787)		3%	SRP bills are one month in arrears
Telephone - Local		5,000		2,917		2,731		(186)		6%	
Repairs & Maintenance Outside		10,400		6,067		5,114		(952)		.6%	
Equipment Usage (Vehicles)		20,000		11,667		9,479		(2,188)		9%	
Travel		-		-		2,166		2,166		0%	Travel to Chicago for life cycle replacement
All Other Services		2,000		1,167		-		(1,167)		0%	
Sub-total Services	\$	277,100	\$	161,708	\$	165,928	\$	4,220		3%	
Control Brown to Co Materials		F77.000		F77.000		F20 000		(46.044)		00/	Mataraka ana Marana ana kalika a AF20K
Contract - Preventative Motorola		577,000		577,000		530,989		(46,011)	-	8%	Motorola one time annual billing, \$530K
Materials & Parts - Outside		17,600		10,267		37,295		27,029	26	3%	Includes cables and other items for updgrade; Offset
Waterials & Farts Outside		17,000		10,207		37,233		27,023	20	370	by decrease in NonCap Assets & Motorola Contract
Non Cap Assets		50,000		29,167		13,235		(15,931)	-5	5%	Offset by increase in Materials & Parts
Software Maintenance- Juniper		20,000		20,000		20,326		326		2%	•
All Other Commodities		1,000		583		-		(583)	-10	0%	
Sub-total Commodities	\$	665,600	\$	637,017	\$	601,846	\$	(35,171)		6%	
SubTotal	\$	1,409,815	ć	1,071,209	¢	1,049,969	ċ	(21,239)		2%	
SubTotal	Ą	1,403,013	ې	1,071,209	ې	1,045,505	ې	(21,239)		2/0	
2014 Rollforward of Consulting fees		250,000		100,000		77,800		(22,200)	-2	2%	Carried forward funds from FY2014
Grand Total	\$	1,659,815	\$	1,171,209	\$	1,127,769	\$	(43,439)		4%	

^{*}YTD Budget represents 7 months of operational costs plus any contractual expenses already incurred (i.e. one time payments such as Insurance Premiums, Land Rental and Motorola Contract).