



Dec 13, 2023

**Governing Board Communication**

**Agenda Item C-1**

**TO: MERA Governing Board**  
**FROM: Todd Williams - Operations Officer**

**SUBJECT: MERA System Operations Update December 2023**

**MERA December System Maintenance Report (Prior Months Oct-Nov Reporting)**

**The Radio Communications division provided the following support to MERA:**

Oct - Nov 2023, the Radio Communications Division provided the following support to MERA:

Master Site - East Simulcast Comparator failure (Oct 2023). Resulting in replacing the comparator board and power supply to correct discrepancy.

- o Downed East Simulcast comparator resulted in no radio communications and/or fire station alerting for 20 - 30 seconds in most of the county.
- o 1 of 11 comparator failures on the East Simulcast could result in a channel being down throughout that entire network.
- o Channel failure caused the East main site controller to roll over to the backup controller.
- o Unfortunately, other comparators have also gone down during quarterly maintenance via rebooting etc. recently; however, this one is more alarming as it went down on its own.
- o A replacement comparator and power supply fixed the issue.

Mount Tam - Power supply failure and main board failure on different/separate radios at the same site (Oct 2023).

- o Losing multiple components, on different radios, at a single site, and during the same month is alarming.
- o Replacement parts were utilized successfully to fix the issue; however, readily available parts sourcing through various vendors remains slim and concerning.

San Pedro - Channel 6 P/A failure resulting in a channel down on the East Simulcast (Oct 2023).

- o A new spare replacement was put in and aligned to the Motorola Spec's to fix the issue (parts shortage concerning).

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November - Failed Quantar P/A module took down a channel on the system. A spare P/A was installed and calibrated. The channel came back online (within 1<sup>st</sup> 2 weeks of month).

- o Again, replacement parts utilized successfully (part sourcing concerns continuous).

Pt. Reyes - On Monday 11/6, a new transmission tower for Next Gen was installed. New tower installation resulted in interference via that same existing Pt. Reyes to Barnabe transmission path (disturbance resulted in 6db loss ongoing).

- o New tower was installed directly in the path of the existing Pt Reyes to Barnabe microwave path (resulting in a 6db signal loss).
- o Additionally, there is minimal overlapping coverage from other surrounding MERA sites in this area; therefore, it's a possibility we may experience more site outages this upcoming winter during heavy rains and fog etc.
- o The Radio Shop will continuously monitor this transmission path. There are only a few options, i.e., weigh out short term network outages or prepare to relocate the dishes by accepting the site going completely down for several hours.

East Simulcast - On Tuesday 11/14 around 1 O'clock, East Simulcast went down for about a minute.

- o All radio users in the area were affected by this unforeseen outage. Many radios were beeping via fail-soft default. Additionally, the system would go up-and-down a few more times within a 5-minute window; however, it eventually stabilized without any further occurrences.
- o It appears that critical equipment outage may have been a result of a system glitch. Furthermore, there were no hardware failures; fortunately, the equipment has still been working without any additional discrepancies etc.
- o The Radio Shop will continue monitor this system. There are a few options remaining, i.e., wait for reoccurrences or utilize spares via reprogramming those spares in the event the issue gets worse (replacement is a last resort, as it would case a 30-minute outage).

Amplifier Failures - 4 total in less than 2 months, estimated 5 lost within a year (the 2 below replacement were the most recent). We've only lost potentially 2 other amplifiers within an entire year in the past(alarming)

- o 11/20 we lost a P/A at Forbes.
- o 11/29 we lost a P/A at Big Rock.

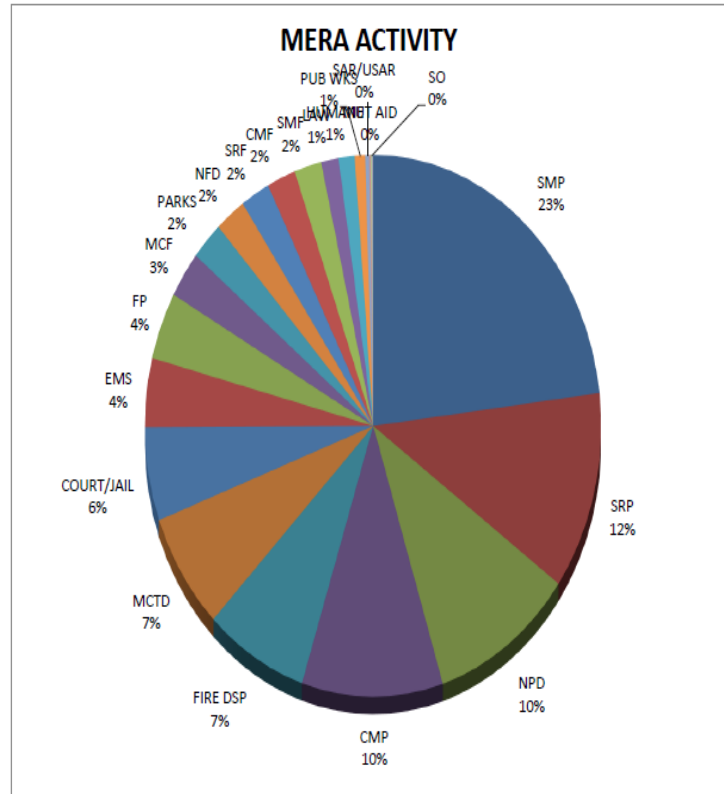


**MERA SYSTEM OPERATION**

October 2023

Agency Grouping	Radio Calls	Call Time	Busy Time
SMP	47,378	140:43:15	0:00:00
SRP	26,236	72:13:45	0:00:00
NPD	21,070	62:03:57	0:00:00
CMP	20,020	60:55:31	0:00:00
FIRE DSP	17,821	44:29:10	0:00:00
MCTD	13,617	42:41:53	0:00:00
COURT/JAIL	16,106	34:02:57	0:00:00
EMS	3,583	25:01:47	0:00:00
FP	8,958	24:32:16	0:00:00
MCF	5,703	16:54:52	0:00:00
PARKS	4,666	14:07:12	0:00:00
NFD	4,313	13:16:20	0:00:00
SRF	4,822	12:36:44	0:00:00
CMF	4,688	12:21:55	0:00:00
SMF	4,410	11:46:10	0:00:00
LAW	2,979	7:28:58	0:00:00
HUMANE	2,466	6:56:51	0:00:00
PUB WKS	1,895	4:27:34	0:00:00
SAR/USAR	688	1:45:29	0:00:00
MUT AID	177	0:33:42	0:00:00
SO	160	0:30:18	0:00:00
ICS	102	0:16:12	0:00:00
FIRE MSC	68	0:15:20	0:00:00
OTHER	33	0:09:02	0:00:00
<b>TOTAL:</b>	<b>211,959</b>	<b>610:11:10</b>	<b>0:00:00</b>

Category	Radio Calls	Call Time	Busy Time
LAW TOTAL:	142,907	402:30:57	0:00:00
FIRE TOTAL:	46,096	138:27:47	0:00:00
PUBLIC WORKS TOTAL:	20,313	61:41:53	0:00:00
NON-MERA TOTAL:	2,643	7:30:33	0:00:00
<b>TOTAL:</b>	<b>211,959</b>	<b>610:11:10</b>	<b>0:00:00</b>



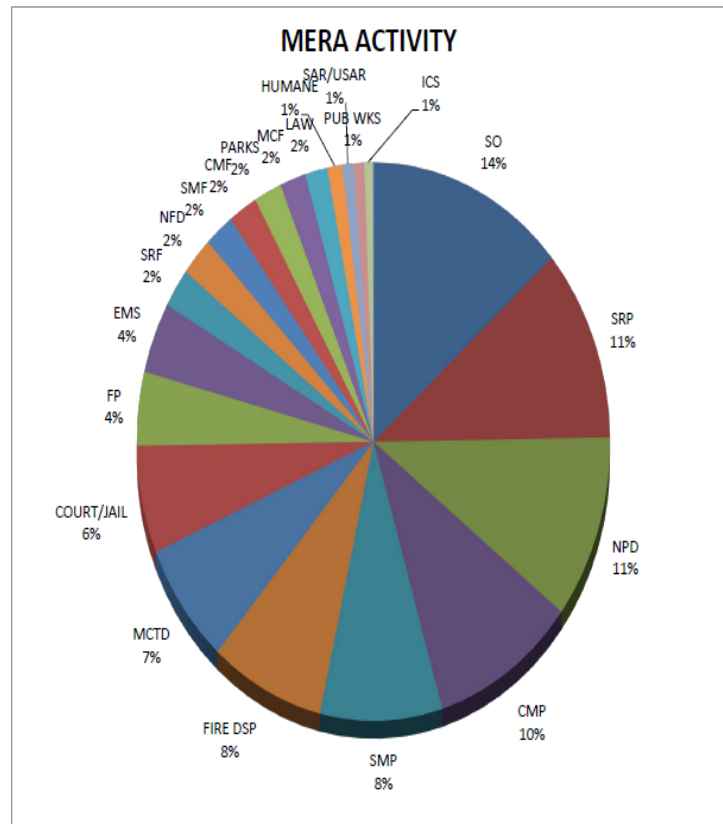


**MERA SYSTEM OPERATION**

November 2023

Agency Grouping	Radio Calls	Call Time	Busy Time
SO	24,988	75:06:58	0:00:00
SRP	22,235	61:55:32	0:00:00
NPD	19,864	59:06:18	0:00:00
CMP	17,973	54:44:27	0:00:00
SMP	16,280	46:09:02	0:00:00
FIRE DSP	17,894	43:10:47	0:00:00
MCTD	12,953	39:16:59	0:00:00
COURT/JAIL	16,048	34:30:09	0:00:00
FP	8,443	23:36:42	0:00:00
EMS	3,302	22:45:44	0:00:00
SRF	4,818	12:32:52	0:00:00
NFD	4,009	12:30:21	0:00:00
SMF	4,001	11:05:41	0:00:00
CMF	3,872	11:02:32	0:00:00
PARKS	3,490	10:27:30	0:00:00
MCF	3,347	9:50:03	0:00:00
LAW	3,581	8:25:24	0:00:00
HUMANE	1,909	5:38:43	0:00:00
SAR/USAR	1,549	4:10:31	0:00:00
PUB WKS	1,829	4:03:43	0:00:00
ICS	829	2:57:53	0:00:00
FIRE MSC	72	0:16:50	0:00:00
OTHER	41	0:07:58	0:00:00
MUT AID	74	0:07:24	0:00:00
<b>TOTAL:</b>	<b>193,401</b>	<b>553:40:03</b>	<b>0:00:00</b>

Category	Radio Calls	Call Time	Busy Time
LAW TOTAL:	129,412	363:34:32	0:00:00
FIRE TOTAL:	42,864	127:25:21	0:00:00
PUBLIC WORKS TOTAL:	19,142	56:54:03	0:00:00
NON-MERA TOTAL:	1,983	5:46:07	0:00:00
<b>TOTAL:</b>	<b>193,401</b>	<b>553:40:03</b>	<b>0:00:00</b>





**MERA SYSTEM OPERATION**

Annual	2023		
Agency Grouping	Radio Calls	Call Time	Busy Time
SO	335,392	1018:28:25	0:00:00
SRP	273,803	768:46:08	0:00:03
CMP	216,128	668:55:42	0:00:00
NPD	215,112	630:28:31	0:00:00
MCTD	163,240	514:46:50	0:00:00
SMP	159,694	471:16:50	0:00:02
FIRE DSP	187,364	469:23:33	0:00:00
COURT/JAIL	176,182	375:41:44	0:00:00
FP	100,595	276:38:51	0:00:00
EMS	35,125	244:04:05	0:00:00
MCF	61,997	188:08:01	0:00:00
LAW	61,558	166:36:42	0:00:04
PARKS	51,378	151:46:10	0:00:00
SRF	63,184	150:41:13	0:00:00
SMF	53,361	135:35:53	0:00:00
NFD	47,322	127:44:08	0:00:01
CMF	49,025	122:35:22	0:00:02
PUB WKS	35,710	88:41:21	0:00:06
HUMANE	24,605	69:17:59	0:00:00
SAR/USAR	8,442	22:43:48	0:00:00
ICS	7,652	20:24:49	0:00:00
FIRE MSC	824	2:56:37	0:00:00
MUT AID	1,130	2:35:51	0:00:00
OTHER	405	1:17:40	0:00:00
<b>TOTAL:</b>	<b>2,329,228</b>	<b>6689:36:13</b>	<b>0:00:18</b>

Category	Radio Calls	Call Time	Busy Time
LAW TOTAL:	1,538,464	4376:52:53	0:00:09
FIRE TOTAL:	506,644	1463:52:40	0:00:03
PUBLIC WORKS TOTAL:	258,385	776:56:50	0:00:06
NON-MERA TOTAL:	25,735	71:53:50	0:00:00
<b>TOTAL:</b>	<b>2,329,228</b>	<b>6689:36:13</b>	<b>0:00:18</b>

