

Feb 28, 2024

Governing Board Communication

Agenda Item C-1

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

SUBJECT: MERA System Operations Update February 2024 (Prior month January Reporting)

The Radio Communications Division provided the following support to MERA:

Mount Tam, Barnabe, and Big Rock - Loose connectivity path between the three mountaintop sites resulted in major intermittent microwave alarms (spare microwave part inserted to correct discrepancy).

- o Outage resulted in intermittent microwave alarms and loss of paths between Mount Tam, Barnabe, and Big Rock.
- o Degradation in microwave signals results in failed loop protection between multiple microwave sites.
- o Ultimately, simultaneous degradation in the microwave paths makes it difficult to determine the root causes of faults or how to isolate them.
- o Replacement microwave parts were installed to fix the issues. However, we will continue to monitor the situation to determine if the strategy employed to resolve connectivity problems provides a permanent solution.

Mill Valley - On 01/14/2024 Channel 3 failure resulted in a downed channel on the East Simulcast (spare GPS module installed to correct the issue).

- o A bad GPS module caused an outage on channel 3 at the Mill Valley site.
- o A new spare replacement GPS module was installed to fix the issue.

Feb 28, 2024

East Simulcast - On 01/15/2024 East Simulcast site trunking went down for about 15 seconds. Identified as a glitch in the system.

- o There was a glitch in the network. It is possible that it stemmed from Prime Site and the Smart X channel bank.
- o Said outage took place twice within a few months.
- o Glitch resulted in excessive alarm notifications; therefore, it's difficult to determine the true source of the outage.
- o Research and alarm history doesn't depict the root problem of glitch.
- o There is limited to no spare equipment readily available, and equipment is not supported by Motorola (awaiting Next Gen for resolution).

Mount Tam/Prime Site - On 01/21/2024 Intermittent signal loss alarms between Mount Tam and the Prime Site. (Issue resolved via power cycling).

- o There was intermittent alarm degradation, which stemmed from the Mount Tam and Master sites.
- o After a few days of troubleshooting, it was determined there were issues between the Master Site, Mount Tam, or the microwaves.
- o It was also determined that the site controller would inadvertently go into errors. These errors would ultimately lead to the site controller locking up, resetting itself every five to ten minutes, and attempting to regain connectivity to the Master site.
- o No mobile or portable traffic could be received at Mount Tam during this time frame.
- o Issue resolved via power cycling; we will continue to monitor the system for consistency.

Barnabe - On 01/30/2024 Microwave alarms kept popping up (Issue resolved via replacement of microwave modem card).

- o Problem stemmed from a failed microwave card supporting communications from Barnabe and Point Reyes.
- o During error, hot standby modem card would automatically take control when the primary modem card failed.
- o By design, the network should correct itself resulting in no loss of traffic or radio coverage to the users.



Feb 28, 2024

o Issue was resolved via installation of a spare microwave modem card. We will continue to monitor the system for consistency.

Prime Site - On 02/17/2024 Major Main Frame Network Software Degradation(Issue resolved via Forced Initialization).

- o Various first responder agencies notified the Radio Shop that numerous mobile radios could not transmit but only receive.
- o Multiple days of troubleshooting took place to determine or identify the root cause of major network degradation.
- o This degradation was initially identified a few days prior; but, it was only temporarily resolved via a soft network reboot.
- o This network degradation got worse on 02/17/2024 resulting in even a larger range of network outages. The Radio Shop was forced to call in a Senior Network Systems Analyst across the weekend to mitigate the outages.
- o Issue was resolved via a forced initialization. This forced initialization was a major procedure that had never been done before. Task involves major risk and only should be performed in dtermental or critical circumstance. Task is only taught by Motorola but is seldom executed with caution.

PG&E Power Outages - 02/16/2024 through 02/21/2: Multiple Sites Lost Power Due to Inclement Weather Storm Conditions. Mitigation Procedures Entailed Constant Backup Generator Maintenance and Refueling.

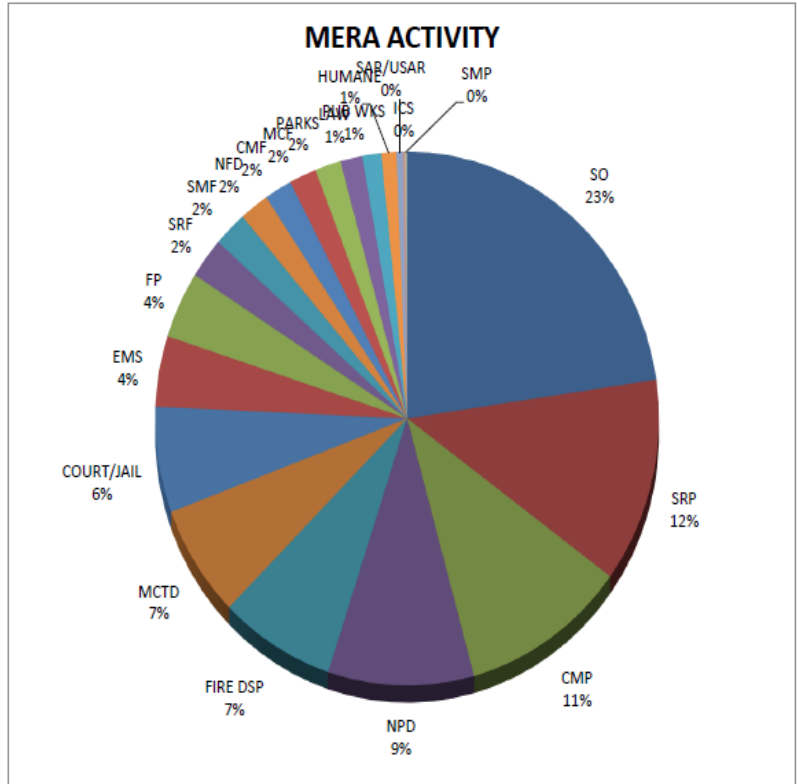


MERA SYSTEM OPERATION

January 2024

<u>Agency Grouping</u>	<u>Radio Calls</u>	<u>Call Time</u>	<u>Busy Time</u>
SO	43,304	127:59:49	0:00:00
SRP	25,470	70:00:46	0:00:00
CMP	19,690	60:06:12	0:00:00
NPD	18,130	52:50:36	0:00:00
FIRE DSP	16,950	41:51:07	0:00:00
MCTD	12,604	38:25:16	0:00:00
COURT/JAIL	17,324	36:06:51	0:00:01
EMS	3,479	24:10:40	0:00:00
FP	8,583	22:52:49	0:00:00
SRF	5,229	13:53:32	0:00:00
SMF	4,390	12:12:30	0:00:00
NFD	3,437	10:41:09	0:00:00
CMF	3,729	9:58:12	0:00:00
MCF	3,175	9:51:25	0:00:00
PARKS	3,141	9:21:52	0:00:00
LAW	3,331	7:55:46	0:00:00
PUB WKS	2,877	6:55:52	0:00:00
HUMANE	1,784	5:20:19	0:00:00
SAR/USAR	811	2:24:19	0:00:00
ICS	334	0:44:55	0:00:00
SMP	208	0:28:35	0:00:00
FIRE MSC	21	0:08:23	0:00:00
OTHER	50	0:07:05	0:00:00
MUT AID	48	0:03:45	0:00:00
TOTAL:	198,099	564:31:45	0:00:01

<u>Category</u>	<u>Radio Calls</u>	<u>Call Time</u>	<u>Busy Time</u>
LAW TOTAL:	136,040	378:21:24	0:00:01
FIRE TOTAL:	41,221	125:11:17	0:00:00
PUBLIC WORKS TOTAL:	19,006	55:35:00	0:00:00
NON-MERA TOTAL:	1,832	5:24:04	0:00:00
TOTAL:	198,099	564:31:45	0:00:01





Feb 28, 2024

MERA SYSTEM OPERATION

Annual	2024		
Agency Grouping	Radio Calls	Call Time	Busy Time
SO	86,608	255:59:38	0:00:00
SRP	50,940	140:01:32	0:00:00
CMP	39,380	120:12:24	0:00:00
NPD	36,260	105:41:12	0:00:00
FIRE DSP	33,900	83:42:14	0:00:00
MCTD	25,208	76:50:32	0:00:00
COURT/JAIL	34,648	72:13:42	0:00:02
EMS	6,958	48:21:20	0:00:00
FP	17,166	45:45:38	0:00:00
SRF	10,458	27:47:04	0:00:00
SMF	8,780	24:25:00	0:00:00
NFD	6,874	21:22:18	0:00:00
CMF	7,458	19:56:24	0:00:00
MCF	6,350	19:42:50	0:00:00
PARKS	6,282	18:43:44	0:00:00
LAW	6,662	15:51:32	0:00:00
PUB WKS	5,754	13:51:44	0:00:00
HUMANE	3,568	10:40:38	0:00:00
SAR/USAR	1,622	4:48:38	0:00:00
ICS	668	1:29:50	0:00:00
SMP	416	0:57:10	0:00:00
FIRE MSC	42	0:16:46	0:00:00
OTHER	100	0:14:10	0:00:00
MUT AID	96	0:07:30	0:00:00
TOTAL:	396,198	1129:03:30	0:00:02

Category	Radio Calls	Call Time	Busy Time
LAW TOTAL:	272,080	756:42:48	0:00:02
FIRE TOTAL:	82,442	250:22:34	0:00:00
PUBLIC WORKS TOTAL:	38,012	111:10:00	0:00:00
NON-MERA TOTAL:	3,664	10:48:08	0:00:00
TOTAL:	396,198	1129:03:30	0:00:02

