

# **MARIN EMERGENCY RADIO AUTHORITY**

c/o Novato Fire Protection District  
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**DRAFT: 10/18/17**

## **GOVERNING BOARD**

### **Minutes of September 27, 2017 Regular Meeting**

#### **Call to Order and Introductions**

The meeting was called to order by President Pearce on September 27, 2017, at 3:30 p.m. at the Novato Fire Protection District Administration Office, Heritage Conference Room, 95 Rowland Way, Novato, CA 94945. Self-introductions followed.

#### **Governing Board Members & Alternates Present:**

Town of Corte Madera	Todd Cusimano
Town of Fairfax	David Cron (Alternate)
City of Mill Valley	Jacqueline Graf-Reis (Alternate)
Town of Ross	Tom Gaffney
Town of Anselmo	Doug Kelly
City of San Rafael	Bob Sinnott (Alternate)
County of Marin	Matthew Hymel
City of Sausalito	Bill Fraass (Alternate)
Town of Tiburon	David Hutton (Alternate)
Bolinas Fire Protection District	Anita Tyrrell-Brown
Inverness Public Utility District	Jim Fox
Kentfield Fire Protection District	Mark Pomi, Ron Naso (Alternate)
Marin Community College District	Martin Langenveld (Alternate)
Marin Transit	Amy Van Doren
Novato Fire Protection District	Steve Metcho, L.J. Silverman (Alternate)
Stinson Beach Fire Protection District	Kenny Stevens
Tiburon Fire Protection District	Richard Pearce
Central Marin Police Authority	Hamid Khalili (Alternate)

#### **Governing Board Member Agencies Absent:**

City of Belvedere  
City of Larkspur  
City of Novato  
Marin Municipal Water District  
Marinwood Community Services District  
Ross Valley Fire Department  
Southern Marin Fire Protection District

**Staff Present:**

MERA Executive Officer	Maureen Cassingham
MERA General Counsel	Trisha Ortiz
MERA Deputy Executive Officer - Next Gen Project	Dave Jeffries
MERA Operations Officer	Pat Echols
Marin County DPW Communications Engineering Services Manager	Richard Chuck
Recording Secretary	Jeanne Villa

**Guests Present:**

City of Sausalito	Lt. Stacie Gregory
Federal Engineering Project Manager	Denis Marin
Marin County DPW Engineering Services Manager	Ernest Klock
Motorola	Mike De Benedetti
Motorola	Kouros Mostashari
Motorola	Rodney Hughes
Motorola	Micah Applewhite
Kenwood Factory Representative	Bill Bower

Echols introduced Ernest Klock, who will succeed him on his retirement and will shadow him until then. He has been working for the County for 17 years, the last 10 of which he has managed the Engineering Division. MERA will be in good hands.

A. Consent Calendar

All matters on the Consent Calendar are to be approved with one motion unless a Member of the Governing Board or the public requests that separate action be taken on a specific item:

- 1) Minutes from August 23, 2017 Governing Board Regular Meeting
- 2) Report No. 58 on Strategic Plan Implementation
- 3) Update on Measure A Parcel Tax Delinquent Utility Parcels Payments
- 4) Proposed Use and Retention of Electronic Communications and Private Email Accounts Policy for MERA Business

*M/S/P Cusimano/Kelly to approve the Consent Calendar Items 1-4 as presented.*

AYES: All  
NAYS: None  
ABSTENTIONS: None  
Motion carried.

B. Executive Officer's Report – (Cassingham)

1) Report No. 31 on Next Gen System Project – (Jeffries)

Jeffries reviewed the Project Schedule noting a major challenge has been identified affecting coverage due to the application of 700 MHz restrictions by the Regional Planning Committee (RPC). This significantly impacts current System design and contracted field and in-building coverage. In discussions with Motorola, we are looking at 4 potential design avenues that may involve a delay we hadn't planned on. One path is to continue looking at what was identified in the Contract with additional sites. Another option would be a modified 700 MHz plan that would involve the possibility of RPC waivers to lift certain restrictions that could reduce the number of new sites. A third option would be a hybrid 700 MHz/800 MHz system. 700 channels might go in West County and 800 channels to the East side of the County. A fourth option would be an 800 MHz system.

Jeffries said each of these solutions may pose many new questions, like the protection of 800 channels for public safety use in the future. Other challenges may include new and different sites and microwave plan redesign. From a radio equipment standpoint, whether we use 700 MHz or 800 MHz frequencies, there is no impact to the end users. Completion of design after the options are analyzed is expected in March 2018 with Governing Board consideration in May 2018. If design were completed in March, the CEQA process could commence. Site development would be delayed to Spring 2019.

Echols said the CEQA timeline might be shorter to the extent other CEQA-related tasks could be undertaken before final design. A conservative assumption would be a year for CEQA. Jeffries said a number of issues must be addressed with the proposed solution including cost impacts. Motorola offered in the Next Gen Project Contract a significant discount for taking delivery of field equipment by December 31, 2017, and their commitment to their recent multi-band radio upgrade offer if exercised by end of this month. Motorola has agreed to extend the discount and the offer out and new dates will be factored into the updated schedule.

Jeffries said another concern was the viability of the Gen I System and availability of replacement parts. Motorola has committed to working with us to locate parts. Chuck will be working on a parts list to assist Motorola in extending current System life. He added that circumstances are evolving and regular updates will follow. He introduced Applewhite, Western Region Vice President from Motorola, to comment on where we are with the Project.

Applewhite said, regarding the spectrum environment for this Project, we are seeing challenges unseen before in larger regional systems. Currently in the West, Motorola is doing 7 to 10 projects of this size or larger. They are doing 30-40

projects this size or smaller. Next Gen is a large project from Motorola's perspective. In looking at available frequencies and what has changed in the last 10 years with 700 MHz, it became clear that the spectrum is limited and not likely to expand. For systems in the region in the last few years, like the East Bay and San Francisco systems, there has been more use of 800 MHz since more channels are available. Many of the 700 MHz channels have been assigned, which has created restrictions from the RPC and FCC on what system transmitters can put out.

Applewhite said he has been appreciative of the MERA staff and their support in working with Motorola on these issues with timely information on different sites and design alternatives. MERA staff has given Motorola very prioritized tasks to focus on and created a very helpful partnership, building on what was established years ago.

Pearce said MERA has spent considerable funds to avoid the situation being presented and asked how we deal with this. Applewhite said MERA's dollars were well spent. Some of these issues have arisen as we have delved into the details about where the frequencies are and their licensing and use. This is a daily changing environment. Motorola has recognized this and has engaged a third-party at their own cost who has been dealing with customers looking at the same frequencies. They are experts who go to the RPCs to assure one customer's channels do not interfere with another's. This third party was sought given their crystal ball was clearer than Motorola's on these matters. Their expertise will assure this will not occur again.

Van Doren asked what the RPC was. Applewhite said these are regional committees that assess how much spectrum is available for public safety agencies because there are limited amounts of channels along with their potential re-use in other regions. The RPC monitors re-use and the possible interference with other channels. First-come licensees have priority, which may result in other licensees having to turn their power down.

Van Doren asked about when MERA got in line in preparing for this transition. Applewhite said he has never seen restrictions to this degree from a Committee in response to the spectrum we are proposing. This is why the third-party company that specializes in this has been engaged. They will approach the Committee to determine if some of MERA's channels have to be turned down that much to still achieve the Contract coverage or if waivers can be granted. MERA was granted years ago its place on the spectrum for this Project.

Van Doren asked why MERA was experiencing this level of restriction. Applewhite said over the last 5 years in this area, there has been an upheaval with the old UHF/VHF systems moving into 700 MHz and 800 MHz spectrums. Due

to more 700 use, this spectrum has been squeezed down to make more channels, which draws in the coverage and brings in more restrictions from the FCC.

Applewhite added that the VHF or T-Band public safety channels are being auctioned off to pay for the buildout of First Net, the national broadband network. MERA was one of the unlucky 11 T-Band spectrum users affected by this.

Pearce said if we are losing channels in 2021, which is driving us to 700 MHz, how do we deal with an extended Next Gen Project schedule plus knowing the current System is not going to be supported? Applewhite said if the Project schedule is adjusted to 2019-2020, it will be delivered before the revised law, which vacates T-Band in February 2023 goes into effect

Kelly asked about the number of channels in the 700 MHz spectrum. Applewhite said the quantity of channels is prescribed by the FCC and comes down to the number of channels being used and their distance. He said there are hundreds of channels in 700 and 800, the bulk of which are for public safety as well as mixed use licensing in some of those bands. Public safety channels are interweaved between big block users like Verizon. The third-party consultant will be analyzing the number of available channels in Marin. They will identify the best available channels with the most protection.

Applewhite said the third-party will produce a report to Motorola, which their Engineering staff will review. If requested, the third-party can attend and co-present at a future meeting. In response to Kelly, Applewhite confirmed the T-band auction is scheduled for February 2023. Kelly asked about a set-aside for first responders under this law. Applewhite said NIPSTIC has published a report for public safety asking the Federal Government to present a plan for them after T-Band is sold and the group of channels that will be protected. No response has been received except to note that 700 and 800 channels used by public safety will continue.

Kelly asked for Governing Board consideration of a letter to our Federal representatives asking for clarification of this matter from the Federal Government given the criticality of this and like projects in California and the costs involved. Applewhite said the L.A. Region has sent their lobbyist to D.C. for clarification and he will share contact information for them. He suggested joining forces with L.A. or acting separately.

Naso asked if Motorola had too many projects going on that could have resulted in their inattention to the design of the MERA Project. Some bumps can be expected, but this design problem is a big surprise. He asked Applewhite what happened along the way here. Applewhite said this is not a complete stop and that the team, including everyone on the MERA side, is doing a great job in keeping parallel activity going. For example, CEQA tasks can still happen ahead of time.

The one change that stands out is the limitation on spectrum that hasn't been seen anywhere else. He said Motorola realizes that more resources are needed for the Project, hence, the addition of the third-party consultant with spectrum expertise to work with the RPC, and assignment of a new Project Engineer with considerable experience with licensure. He hopes these actions in keeping with the discussion today, will ring true.

Cusimano expressed great surprise as to where we are right now. It seems we are back to square one with more analyses to do along with a complete redesign. He asked about the impacts on the schedule. Much has been committed to the MERA members and their departments and so much time has been invested in getting this done. Back to ground zero is shocking and schedule impacts need to be identified. Much of his life has been spent on this Project and the RPC has never been mentioned. He asked how long their restrictions have been in place.

Applewhite said the restrictions are on a channel-by-channel basis and the policy has been in place since 2012 for how channels are assessed. What has changed is when other channels in the area get licensed, the filing of new applications is affected by what happened with prior approvals. Van Doren noted that the Committee seems a more reactive body than a planning body. In response to Kelly, Applewhite said he didn't know when the RPC was established. The 700 MHz channels rules were in place in 2012. In response to Cusimano, Applewhite said some restrictions are as recent as 3 to 4 weeks ago, based on new sites going in that require RPC restriction assessment.

Applewhite said, regarding the schedule, the frequency options analyses by Motorola to produce a design in which they have a high level of confidence, along with the identification of more or different sites, will be a 6 week process. Along with CEQA, we are looking at a 6 month delay. Cusimano wants to be prepared, if after design analysis we need to consider 13 additional sites, which would set us back years. Applewhite said there are options for not having to add more sites. However, if we were to proceed with the 700 design with the RPC restrictions, this would likely require 7 more sites. This is worst case scenario without RPC waivers. The redesign effort is to mitigate interference issues with waivers or replace highly restricted channels with a different channel pair or two in a hybrid scenario of 700 and 800.

Cusimano asked if we are in a good position to have the RPC restrictions lifted. Applewhite said, based on initial discussions with the RPC, MERA has a good case for obtaining some waivers that will allow for an increase in power, the percentage of which is still unknown. Redesign will then determine the number of additional sites.

Tyrell-Brown asked if RPC waivers were common. Applewhite said with the more populated regions, waivers have become more commonplace, especially

with the 800 side. There have been fewer waivers for 700 systems since it is a newer spectrum. The RPC supports public safety and wants to work with them while at the same time protecting incumbent public safety users. Jeffries added that it should be emphasized to the RPC that this was not MERA's decision to move to 700 and that we are being forced into this move by the impending loss of T-Band. Accordingly, we are seeking some flexibility to provide the coverage we committed to.

Gaffney asked what we can do to protect our frequencies at current sites and protect from other agencies encroaching on them. Applewhite said the best thing to do to protect MERA's frequencies is to use the third-party vendor to work with the RPC based on the report they will be presenting to finalize our applications and complete the licensing process. Once completed, those protections will be assured over future applications. Gaffney asked if we should have done this before. Applewhite said this is a judgment call and there are costs involved with engineering work and the application process. For most public safety channels, licensing requires buildout in 1 year to put the frequency on the air at the locations where it is licensed. The FCC may require return of the frequency to the pool if it is not in use.

Jeffries said much work has been done in developing the radio packages and equipment list, agency radio inventory and talk group templates. The microwave path surveys that have been done will need revisiting. This delay permits more time to finalize this work. While this is a bump, much of the side work associated with the Project will continue as planned. Echols asked Applewhite to comment on Motorola's commitment to keeping our current System operational for a more extended period of time. This was a fundamental issue when we asked voters for Project funding, because not only were we going to be bumped off T-Band, but impending System obsolescence without Motorola support and parts availability.

Applewhite provided assurance that Motorola, given the current System life of 2018, will continue to support to keep the System up and running. The Motorola team on the ground will back up the Radio Shop with support. They will obtain a list of the critical components from Chuck, many of which have not been manufactured in 10 to 15 years. Motorola is working with other customers who are decommissioning their systems to do buybacks from them and stocking an inventory of spare parts in their warehouse. The intent is to keep the System operational until the new system is cutover. Motorola is working internally to create a customized working plan to keep this critical public safety system up and running.

Pearce said this is more than a speed bump and is stunned to learn there was a third-party that explicitly deals with RPC restrictions that could have been brought in. This was a key issue that was missed. He said he appreciates Motorola's commitment to keep the current System going. In response to Kelly, Jeffries added that Motorola has been in productive conversation with John

Lemmon at the RPC. Kelly said there are 700 channels reserved for public safety and MERA should consider contacting the Committee about our concerns. Chuck said 27 pairs of frequencies have been assigned to MERA since 2008.

Jeffries noted the continuing extensive staff work being performed in support of the Project, including weekly management meetings and technical calls between the MERA and Motorola teams. He said this will take some additional time to address the issues discussed today with a tentative timeline to complete design review by March 2018. The updated schedule, which will be available next week, will be shared with the Board with the understanding it is a working draft, still subject to change through the design review process.

Jeffries said in the course of evaluating the frequency options, if it is determined there is no point in going further with one of them, we need to take up the alternatives. The Governing Board will receive regular updates. Additionally, a Project Oversight Committee meeting will be convened in the next 2 months for input. In response to Van Doren, Applewhite said the RPC is a fulltime body that meets monthly and is very responsive. It is committed to expediency in working with us. Kelly added that John Lemmon is Chairperson, Region 6 – California North, Governor’s Office of Emergency Services, Public Safety Communications.

Silverman asked, if there are problems with 700, why aren’t we looking at 800? Jeffries said the equipment and end users don’t care if we are 700 or 800, which is why 800 is one of the potential solutions. However, there is no Federal commitment to keeping 800, much like the situation with T-Band. The 700 band offers more assurances to public safety. In response to Kelly, Jeffries said we already have commitment for 27 pair in 700 MHz, which is why we want to move forward to getting them locked in and deal with the restrictions and possible waivers.

Kelly said he didn’t believe the 27 channel set-aside for public safety in Marin and asked for it to be rechecked. Chuck confirmed this allocation in the 700 MHz band specifically for Marin County. He assured these channels were not in the numeric ranges cited by Kelly, noting there are many channels in the band. Pearce said there are many questions that can’t be answered today. He expressed concern over escalating Contract costs if more sites are needed. The public supported us with the tax measure for this system and there is a finite amount of money to provide it.

Bower asked if there was a time limit on this funding source. Gaffney responded that the tax was for 20 years and all of it would be needed for the system over time as designed. Bower asked about in-building coverage with possible system redesign. Pearce said coverage would differ from the 700 to 800 design. Applewhite said in-building design coverage could be accomplished with 800. Jeffries said the design goal is to achieve the coverage contracted for, which

includes field and in-building. Pearce said we have an Agreement that Motorola has to work on and come back to us with a design that achieves it in an acceptable timeline. Our commitment is to deliver a project that works for us.

Jeffries concluded with an update on the Fire Station Alerting (FSA) kickoff meeting and site visits. FSA will be implemented on a parallel path with the base project. We are working with the Sheriff's CAD vendor to interface software between the systems. The Project team will be working with DCR and Motorola to get this done.

2) Other Information Items

None.

C. Operations Reports – (Echols)

1) Report on No Cost Motorola Contract Change Orders (CCOs)

Echols presented the informational report on CCOs #2, #3 and #4, all of which are no cost. #2 is a power redesign change at the master site utilizing existing backup batteries versus a UPS system. #3 modifies the fleet mapping course with an R56 training course, which covers site and structure design, proper grounding methods, installation guidelines and other industry best practices. #4 covers the replacement of Motorola's Project Engineer with Steve Gonzales. Key personnel changes require a formal change order. Chuck explained the use of existing backup batteries represented a considerable savings.

2) MERA System Operations Update – (Chuck)

Chuck presented his update on prior month activities which included regular weekly and quarterly preventive maintenance tasks, Next Gen and Federal Engineering support and preventive maintenance on additional FSA systems. A rectifier was replaced at Mt. Burdell, microwave fan operations were addressed at Sonoma Mt., a dehydrator was replaced at Sonoma Mt., a SMART-X rollover was investigated on the East system and the Shop fixed a 17-year-old wire-wrap problem at the San Pedro microwave. They replaced an A-2 microwave receiver at Sonoma Mt. and site batteries at Forbes. Chuck said they also moved Kaiser Hospital radios to the new ER and replaced FSA radios at Novato, Hicks and Southern Marin stations. The Radio Shop staff accompanied tower and FSA contractors to MERA sites for the Next Gen Project and cleared 5,847 System events.

Chuck reviewed Usage Charts, noting in August there were 795 hours air time, with 275,000 push to talks. Year-to-date, there were 6,250 hours air time and 2.1M push to talks. He presented a chart on MERA System air time history from

2006 to 2017, noting 51M push to talks and nearly 115,000 hours air time without exceeding System statistics. Chuck developed peak usage charts for the Comm Center, which identify peak differences. Gaffney asked if there were more System repairs upcoming. Chuck said yes, but nothing dire. System events are increasing each year, which is to be expected with an aging system. In response to Gaffney, Chuck said a System event is an alarm that must be responded to 24 hours a day. He clarified that, for example, a transmitter issue may generate 100 alarms.

3) Other Information Items

Cusimano reported he represented MERA in the interviews of 6 candidates for the Assistant Public Works Director and MERA Operations Officer position. 4 were from the outside and 2 were in-house. He said the quality of the in-house candidates was outstanding and he was very impressed. Klock was the panel's number 1 candidate and he was his number 1. We are in good hands with him.

Kelly asked for the exact frequencies of the 27 channels in the 700 band.

D. Open Time for Items Not on Agenda

None.

E. Adjournment

The meeting was adjourned at 4:32 p.m.

Respectfully submitted by:

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Maureen Cassingham  
MERA Executive Officer  
and Secretary