



# Deschutes County 9-1-1 Service District User Board Meeting Minutes

**Date & Time:** Tuesday, October 9, 2018, at 1000 hours

**Location:** Deschutes County 9-1-1, 20355 Poe Sholes Drive, #300, Bend

**Attendees:** Sara Crosswhite, Chris Perry, Megan Craig, Tim Beuschlein, Jonathan Spring, Kim Morse, Tony DeBone, Phil Henderson, Tom Anderson, Ben Gregory, Paul Kansky, Bob Madden, Denney Kelley, Dave Pickhardt, Tim Moor, Matt Ziebol, Garrett Andrews, James Cook, Scot Brees, Rick Allen, Dan Tucker, Joe Blaschka, Bill Hepburn, Edward Barbeau, Jr., Nick Parker, Ruben Rokosh, Patti Adair and Amy Lowes.

**1. Call to Order and Introductions** – Sara Crosswhite, Interim Director

**2. Approval of August 28, 2018 Meeting Minutes**

*Dan Tucker moved to approve the August 28, 2018 meeting minutes, as presented. Motion seconded by Denney Kelley; motion carried.*

**3. Approval of September 11, 2018 Meeting Minutes**

*Tony DeBone moved to approve the September 11, 2018 meeting minutes, as presented. Motion seconded by Dan Tucker; motion carried.*

**4. Public Comment** – None.

**5. Staff Reports**

**Administration**

Sara Crosswhite announced that a conditional job offer was extended for the Deputy Director of Technical Services' position. The applicant is currently in the background phase, and once that has been completed, an announcement will be sent out to everyone.

Radio tickets are on the decline. Last week there were 16 tickets, this week there were only nine. This is positive news.

She reminded the Board that the radio video training segments for YouTube are currently underway. The videos will be available for all users on a private YouTube account. The videos will allow users to refresh their radio usage skills and also be used as a training tool for new hires. This could be a resource for current users or for new agencies or employees onboarding to the new radio system. The first completed video in the series was shown to the User Board and reviewed the overall basic operations of the radio.

Each video segment will address one specific aspect of radio operations. As the District moves forward in the series, mobile operations will be outlined, as well. 911 staff have reached out to different agencies who are interested in participating in the production of future videos. Users from each aspect of public safety (law enforcement and fire/ems) will assist in the making of these videos. The goal is to have several videos available when the fire agencies go “live,” so they will have these extra training tools in place. This will be a primary focus for Ty Darapiza during his workweek.

### **Operations**

Chris Perry reported staffing and overtime remain unchanged from last month. Operations continues to be busy. The 2019 Team sign-ups are complete and the 2019 vacation sign-ups are in process. For the past few weeks he has been working on a Continuity of Operations plan with the County for Deschutes County 9-1-1 and has also been focusing a large portion of his time to the Defined Audio Quality (DAQ) testing and coordinating with fire agencies for their P25 radio equipment installation.

### **Training and Hiring**

Megan Craig reported Deschutes County 9-1-1 is currently trying to increase staffing levels after the loss of several employees. There will be three new employees starting on Friday (October 12, 2018) in the dispatch training orientation. There is currently one trainee in police training and it is going very well. This should help with the overtime Chris Perry alluded to in his Operations report.

Megan met with a National Q representative recently and was told our “center is known for being so incredibly strong.” She explained National Q provides feedback on randomly selected medical and fire calls, which is then used to develop training for staff members. The representative reviews ten centers throughout the United States in addition to participating in her own agency’s reviews of many other centers, and that statement is a testament to the telecommunicators at Deschutes County 9-1-1 and how hard they are working to provide a high level of service. The floor supervisors are also doing a great job at making small course corrections throughout their shift before they become larger issues.

### **Technical Systems**

*CAD Project* – Jonathan Spring had nothing new to report on the CAD project schedule. He continues to work on interfacing and records work for law enforcement and any open support items needed. Housekeeping on the floor consoles is continuing in anticipation of a Windows 10 update in the near future.

*Radio System* – Rick Allen reviewed last week’s progress with the DAQ testing within the City of Bend. Multiple agencies, including Bend Fire Department and Bend Police Department, participated in the testing. The test consists of drive testing in and out of 83-84 different areas within the City and reading Harvard sentences. Prior to beginning the process, radios were checked to make sure they were operational. During the radio operations test, it was determined that one of the radios was not working properly. Time was taken to bring the radio up to full

operational order prior to beginning the test. This did cause a small delay in beginning the DAQ testing. This is a good reminder that there are lots of pieces to this project. It is imperative that radios be in good repair prior to operations.

Per Rick Allen, each of the six people (three at 9-1-1 at consoles and three out in a vehicle) participating were involved in the portable and mobile audio test and each were grading the transmission according to the national standard DAQ scale. Once the testing was completed, Joe Blaschka and his team input the numbers into a spreadsheet and compiled averages for each area tested. Those numbers have not yet been provided, but overall, the scores came in high. The difference between 3.0 and 3.4 is hard to discern and perhaps 80+ percent of the City of Bend is already at a 3.4 without Overturf being built out to its full capacity. There may be spots that are at a 3.0, but those numbers could change after the completion of Overturf. After talking with the firefighters and officers, everyone felt the testing went well. We now know where we started before the Bend Police Department went "live." Now we know, after making changes to radios and firmware, where we are today. We do know that there needs to be some improvements at certain sites, which will come at a later time.

Two different portables (Harris and Motorola) were used during the DAQ testing. Normally there would not be two different portables for testing, but due to different agencies using different portables, it was decided that the testing would include both models. Scores compiled from each radio will also be added to the spreadsheet for comparison.

Commissioner Henderson wanted to know if there were any notable areas that were identified as less than acceptable as others and that he would like to see the findings placed onto a map. Rick Allen explained that once the data has been compiled, we would be able to map what areas are a 3.0-3.4 or under. He went on to explain that sound is subjective and individual people will place a different score to what they hear. Since there is a human element to the DAQ testing, they are going to include the Bit Error Rate (BER) testing, which does not have a human component.

Commissioner DeBone wanted to know if there was a different audio quality due to the different geographical locations. Chris Perry explained he was the 9-1-1 employee on the drive team and each person had his or her own perspective as to transmission quality. He did not hear any digitized or garbled transmissions, although some distortion was heard and could be due to the digital nature of the radio and how it sounds so different than analog. It may have sounded better in some areas than others, but one area was not more obvious than another to answer the Commissioner's question. He also explained the Harvard sentences are not something one is used to hearing, so during some of the transmissions, you are not sure if it is the sentence or the audio that is different. The drive team did go to trouble spots and it worked just fine.

Sara Crosswhite went on to explain that she sat in on the console side during the testing and one officer read his sentence from a mobile radio. The console team thought he sounded different, and they were wondering if it was the mobile causing the problem. The console team messaged Chris Perry on the drive team and asked them to switch, and there was a notable difference in

the audio. Sara has worked with the officer for a number of years and it is the officer's normal speech pattern and did not appear to be the device causing the distortion. Rick Allen also interjected that this is why it is important to include the BER testing in the report.

ADCOMM Engineering Representative Joe Blaschka explained that the BER testing standard for a 2.4% BER equates to a 3.4 delivered audio quality (DAQ). The computerized test system listens to the trunk system giving it a number. This is achieved by placing an antenna on the vehicle and calibrating it down to the level of what a portable radio sitting on a person's belt would be. The computer takes thousands of GPS readings from wherever you are and downloads the data. Maps of the BER's are then generated indicating whether readings are acceptable or not acceptable.

Areas of 3.0 standards and 3.4 standards will be identified. The BER testing is scheduled for mid-November.

Commissioner DeBone had a question regarding portable-to-tower transmission quality and then tower back to portable. Joe Blaschka explained they have to calibrate the mobile radios down to what a simulated portable would be transmitting, and then reverse it back from the tower as there is no automated system that will do it. Knowing what the tower performance is and then calibrating the mobile gives you a percentage as to what the base station is hearing. Mobiles are currently at a 100%, and we can expect the portables to be something less than 100%.

He reiterated that equipment maintenance is critical. If the equipment is not maintained properly, and you are noticing coverage problems, you have to determine if it is infrastructure or equipment problems. Infrastructure is designed for a 30-watt mobile, and if the mobile is only putting out nine or ten watts, you will not get proper radio performance. This solidifies the importance of maintaining both mobile and portable equipment.

Bob Madden, from Bend Fire Department, commented that he had been listening while the testing was taking place. Feedback he received from his staff that participated was that they did not have problems with signal strength, it was getting used to the digital sound, especially while listening to the Harvard sentences. By the end of the day, they were able to understand the digital sound. There will be a learning curve during this process.

Rick Allen reminded everyone that County testing would begin tomorrow (October 10, 2018) and will include Black Butte Ranch, Sunriver, City of Redmond and Deschutes County. This will be a three-day drive testing period.

The following tower updates were given by Rick Allen:

- *Cinder Butte* – This is in the early stages of preparation. Currently evaluating locations as to where it should be placed. There are no exemptions for public safety and there is a landscape zone within so many feet from Highway 97. There is a 30-foot height restriction on the pole that can be placed. This height will not work, and there is no exemption to ask for a higher structure. There is another location west of this area that is outside of the landscape zone. There will be some testing completed and

conversations with land owners to determine the best location for this site. This is a slow process and planning is critical.

- *Overturf* – A meeting is scheduled with the City of Bend water department and the planning department for Thursday (October 11, 2018) regarding antenna usage requirements, noise ordinance for generator operations.

Engineers are currently in the design phase for each of these projects. The goal is to run each of these projects parallel to each other to help streamline the processes. There are also FCC requirements for building towers and each of their requirements must be met in order to proceed with a successful outcome.

Commissioner DeBone wanted to point out that the overall goal and big picture is to achieve a 3.4 system for portables on an officer's hip while standing at a street corner in the City of Bend. All were in agreement. He also reiterated that we may have that in some areas and we may not have that in other areas. The current testing will be defining that information. He also wanted to remind everyone that we bought into a 3.0 system for the State of Oregon. By adding towers, we are adding capacity to the City of Bend and throughout the County with a goal to move to the public safety scaled system of a 3.4. Commissioner DeBone posed a "yes" or "no" question to the Board wanting to know if this was an accurate understanding of the overall goal. The answer was "yes." Rick Allen pointed out that we are already at a 3.4 within the City at around 80+ percent and could be more after the testing has been completed. Mapping will be required to give a more definite number of percentages and coverage for County portables and mobiles once the testing has been completed. Commissioner DeBone just wanted to acknowledge to the group that there is a big difference between a 3-5 watt transmission from a portable radio and a 15-30 watt transmission from a mobile radio.

Commissioner Henderson also wanted to point out that this is a portable standard and not the mobiles that we are trying to achieve. Once the mapping has been accomplished, we, as providers of the system to the users, need to determine if the system is satisfactory to the users and if it is working well. If there are problems after that point, we look at what needs to be added for additional improvements.

Commissioner DeBone wants to make sure once this radio project has been completed, we begin a capital outlay list of what will be required to keep the system running well and to project future needs for the radio system.

Chief Kelley, from Black Butte Ranch Police Department, wanted to express his appreciation for all of the hard work it has taken by multiple agencies to take a national standard of a 3.0 mobile system and make it what a group wanted, a 3.4 portable system. The use of the propagation maps was very helpful, as well. We have identified issues with power output and battery usage and how important it will be to maintain end user equipment.

Paul Kansky, from Bend Police Department, wanted to remind the group that it is important when we are talking about the sites and towers that the plan(s) continue to be documented. The plan

should include dates and deadlines moving forward. Having everything documented will help keep all agencies on the "same page". He also wanted to point out that when discussing an acceptable public safety system, it is important to meet the 3.0-3.4 standard, but volume consistency and controls are also part of an acceptable system.

#### **6. Other Items or Good of the Order**

Commissioner DeBone requested a time frame in reference to last week's drive test information. Rick Allen replied that there should be something out by Friday (October 12, 2018) with a possibility that data could be put into the weekly updates. Joe Blaschka informed the Board that he currently has the raw data. He is working with Chris Perry and reviewing all of the handwritten data prior to releasing the information for the report.

Commissioner Henderson wanted to know if the report would be quantified into numbers like the original and if an average for both the mobiles and portables would also be available. Joe Blaschka assured the group that the report would be for both items and that it would include what places passed and which places failed. We already know that currently 100% of the mobile testing passed. Rick Allen interjected that a map would be available for areas that did not rate a 3.0 or better.

County Administrator Tom Anderson gave an audit report for the After Action Report follow-up. The list has been narrowed to a list of five firms from the original RFP. A revised RFP was issued to define the scope of the report further. A bidder's conference was held with each firm and the RFP additions were outlined. Bids should be in by Friday (October 12, 2018) and will include price quotes. This will not be a strict low bid recipient. The entire bid package will be evaluated to determine which bid will best fit our needs. Once a firm has been chosen, an announcement will be made.

#### **7. Adjournment**

There being no further business, the meeting adjourned at 1055 hours.

Minutes respectfully submitted by Sara Crosswhite and Kimberly Morse.