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# MEMORANDUM

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Date: March 20, 2014

To: The Honorable Chair and Members  
Pima County Board of Supervisors

From: C.H. Huckelberry  
County Administrator 

Re: **Interoperable Public Safety Radio System Implementation and Recent 9-1-1 Service Interruption**

Over the past few days, the Pima County Wireless Integrated Network (PCWIN) and the 9-1-1 dispatch centers for the Pima County Sheriff's Department (PCSD), as well as the City of Tucson, have been the topic of focused interest. The purpose of this memorandum is to update the Board regarding these system transitions and resolution of the 9-1-1 service interruption.

On March 16 at approximately 5:00 AM, Pima County transferred the PCSD public safety radio communications system from the old EF Johnson system to the new Motorola system – a tremendous accomplishment. Ten years of planning, construction and implementation culminated with PCSD and County public service departments transitioning operations to the PCWIN voice radio network. This system was part of the 2004 Public Safety Interoperable Communications Bond Project. Today, March 20, the Tucson Fire Department was transitioned to the new radio communications system. When the final agency transition occurs on April 9, a total of 34 police and fire agencies will be actively using the new interoperable radio communications system.

Along with this transition, PCSD also transferred operations to its new 9-1-1 dispatch center in the Pima Emergency Communications and Operations Center (PECOC). This transition also went well, and by mid-morning on March 16, both systems were fully operational with no major issues.

On Monday, March 17, PCSD and the City of Tucson encountered a technical challenge. In response to requests to optimize the system, the PECOC dispatch center contractors (CenturyLink and Cassidian) attempted to make several changes to the software of the 9-1-1 system. Part of this process involved transferring 9-1-1 calls from the PECOC to the City of Tucson dispatch facility at the Thomas O. Price Service Center (Price) so that the technicians could work on the PECOC system. This transfer is accomplished by activating switches in the PECOC. Unfortunately, the transfer switches were improperly activated; and as a result, calls were forwarded from the PECOC to Price and then back to the PECOC.

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The incorrect transfer process created a continuous loop of call forwarding from the PECOC, and 54 calls were caught in this loop. At least 10 of these 54 calls were test calls by the contractors. Calls received by the City of Tucson continued to be answered and addressed as they were received. Within 23 minutes, the problem was corrected; and shortly thereafter, dispatchers began reprocessing the calls that were not completed. PCSD and the Tucson Fire Department were able to resolve almost all of these calls within five minutes of service restoration.

The CenturyLink and Cassidian system maintenance activities were not accomplished on March 17 due to the unexpected service interruption. On Tuesday, March 18, the contractor technicians again attempted to address the maintenance request. The same process of forwarding calls from the PECOC was successfully initiated. The maintenance work was completed. After the work was completed, technicians were unable to route all of the 9-1-1 services back to PECOC, which prevented full transfer of call capability back to the PECOC and PCSD. The investigation led to a software coding issue, which has since been addressed by CenturyLink and Cassidian. The City of Tucson maintained full accountability of all calls, and the technicians again re-forwarded calls back to Price. Price staff maintained all 9-1-1 calls for PCSD while the troubleshooting process was conducted, and members of PCSD deployed to Price to operate the 9-1-1 system from its backup facility.

The PCWIN project included 9-1-1 backup systems and facilities. The goal of the project was to provide a capability for either of the two 9-1-1 call centers to evacuate and resume operations at the other facility. PCSD personnel operated from the new backup facilities at Price, and the backup facilities performed as designed. This capability did not exist prior to the PCWIN project.

PCSD began another comprehensive system test for 9-1-1 capability in the PECOC on March 19. These tests were accomplished during the system acceptance process and are being re-accomplished to ensure confidence in the system and its contractors. These steps have been completed, and we expect the 9-1-1 system to operate at its projected full capacity. In addition the software correction, PCSD has requested a redesign of the transfer switch setup to mitigate the risk of future failures. The PCSD 9-1-1 call takers have now deployed back to the PECOC, and the situation is fully resolved.

The press has reported that the system failures are related to the PCWIN project. This is not the case. While both systems are funded by the same bond project, they are two separate systems. The PCWIN voice radio system has functioned very well since it has become operational. In fact, expectations were well exceeded. Reception is clear as far

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north as the Town of Florence and City of Casa Grande and into the Phoenix metropolitan area, as well as along the Interstate 8 corridor, which is well beyond the predicted capability of the system. We are very pleased with these results, as are our partner agencies throughout Pima County.

It should be noted that the 9-1-1 troubleshooting process reflects well on this positive partnership between the City of Tucson and Pima County. Both entities have worked very well together through the issue's remediation, and the City opened their facilities for our use. Clearly, this bond project has benefitted our community with renewed technology, robust backup facilities, and effective partnerships.

PCSD continues to be actively engaged with the media regarding 9-1-1 communications. If you have any questions regarding the PCWIN project or the PECOC facility, please contact me.

CHH/mjk

c: The Honorable Clarence Dupnik, Pima County Sheriff  
Paul Wilson, Bureau Chief, Pima County Sheriff's Department  
John Voorhees, Executive Director, Pima County Wireless Integrated Network