

# **Audit**

# **Follow Up**

*As of September 30, 2006*



Sam M. McCall, CPA, CGFM, CIA, CGAP  
City Auditor

## **800 MHz Radio System**

*(Report #0614, Issued May 3, 2006)*

**Report #0710**

**January 29, 2007**

### **Summary**

In report #0614, we noted areas where improvements could be made to increase preparedness for emergencies/disasters, improve oversight of the 800 MHz radio system, and increase the physical security of the various 800 MHz radio system infrastructure and radio tower locations.

The Information Systems Services Radio Communications Division (RCD) has completed seven of the 13 action plan steps that were due as of September 30, 2006. Additionally, progress has been made on three steps and the remaining three are outstanding. The completion date for the remaining six steps not completed has been amended to September 30, 2007.

Overall, to address the action plan steps due this period, RCD has:

- Developed a process where all system outages are recorded and pertinent information is captured;
- Increased familiarity with and improved compliance with FAA requirements relating to radio towers;
- Improved the physical security of the various radio tower locations by increasing the controls over the keys that provide access to those locations;
- Developed a draft assessment of the risks facing the 800 MHz system; and
- Developed a draft Continuity Planning and Crisis Management Plan.

### **Scope, Objectives, and Methodology**

The original audit and this subsequent follow up audit were conducted in accordance with Generally Accepted Government Auditing Standards and the Standards for the Professional Practice of Internal

Auditing. This follow up was for the period May 3, 2006, through September 30, 2006.

### **Original Report #0614**

The scope of report #0614 included a review of selected computer controls over the 800 MHz radio system and of the performance and oversight of that system by RCD. The objectives were to evaluate whether RCD operated the 800 MHz radio system in an efficient and effective manner, selected computer controls were in place and functioning as intended, and the 800 MHz radio system met the needs of its users through an evaluation of the performance of the system.

### **Report #0710**

This follow up is to report on the progress and status of efforts by RCD to complete action plan steps due for completion during the period May 3, 2006, through September 30, 2006. This is our first follow up on action plan steps identified in audit report #0614. To determine the status of the action plan steps, we interviewed staff and reviewed the relevant documentation provided by RCD.

### **Background**

The 800 MHz radio system is the primary means of radio communications for the public safety agencies of the City of Tallahassee, Leon County, and the local universities. As such, the availability and continued operability of the 800 MHz radio system during an emergency or disaster is very important. Additionally, other City and County departments use and rely on the 800 MHz radio system for their day-to-day operations.

The 800 MHz radio system is a computer based system radio system. Therefore, its components should be protected and cared for in a manner similar to any other computer, and the equipment shelters should have controls in place similar to those for computer operations centers.

In 1999, the Management Oversight Committee (MOC) was formed to oversee and provide direction for the 800 MHz radio system. The MOC was in place and functioning for several years. Subsequent to the issuance of report #0614, the MOC was dissolved and a new board was created. The Public Safety Communications Oversight Board (PSCB) replaced the MOC as the 800 MHz radio system's governing body.

The PSCB is comprised of the city manager, county administrator, sheriff, police chief, fire chief, and the county emergency management services director. The first issue assigned to the PSCB was the consolidation of dispatching calls for service for public safety agencies in Leon County. Because of the nature of this assignment and the level of effort required to complete it, the issues identified in report #0614, relating to the 800 MHz radio system, have not been addressed yet. The day-to-day management and oversight of the 800 MHz radio system remains the responsibility of RCD.

**Previous Conditions and Current Status**

This is the first follow up on audit report #0614, 800 MHz Radio System. In that report we made recommendations designed to:

- Improve the oversight of the 800 MHz radio system;
- Improve the preparedness for the recovery from emergencies or disasters;
- Improve the recording and tracking of system outages;
- Improve compliance with FAA regulations relating to radio tower lighting;

- Improve the reliance that can be placed on the alarm system that monitors the 800 MHz radio system;
- Review the emergency testing provisions of the 800 MHz radio system maintenance agreement and decisions previously made thereon;
- Evaluate the coverage of the 800 MHz radio system and take appropriate action based on that evaluation;
- Increase accountability and oversight of individual components and spare parts of the 800 MHz radio system;
- Improve and update the standard operating procedures governing the 800 MHz radio system;
- Improve the physical access controls relating to the various 800 MHz radio system locations;
- Improve the monitoring of the environment of the 800 MHz radio system locations; and
- Improve the logical security controls of the 800 MHz radio system.

As of September 30, 2006, seven of the 13 action plan steps due this follow up period have been completed. The six other steps have had their completion dates amended to September 30, 2007. The completion of three of those steps has been delayed by the transition of oversight responsibility from the MOC to the PSCB, and work has begun on the remaining three steps. Table 1 identifies the action plan steps due and describes their current status. The completion date for the remaining six steps has been amended to September 30, 2007.

**Table 1  
Action Plan Steps from Report #0614  
due as of September 30, 2006, and Current Status**

Action Plan Steps	Current Status
<i>To improve the preparedness for the recovery from emergencies or disasters.</i>	
<ul style="list-style-type: none"> <li>• Conduct and document a risk identification/assessment (as it relates to disaster planning) of the 800 MHz system.</li> </ul>	<ul style="list-style-type: none"> <li>♦ <b>Amended Completion Date.</b> An initial draft risk assessment has been prepared, but it was not complete as there were some risks not addressed. Progress has been made toward completing this step. The amended completion date is September 30, 2007.</li> </ul>

<ul style="list-style-type: none"> <li>Conduct and document an impact analysis.</li> </ul>	<ul style="list-style-type: none"> <li><b>Amended Completion Date.</b> An impact analysis is included in the above risk assessment. An impact was associated with each risk that was identified. The amended completion date is September 30, 2007.</li> </ul>
<ul style="list-style-type: none"> <li>Develop a documented disaster/emergency recovery plan. That plan will be based on the risk assessment and impact analysis previously conducted.</li> </ul>	<ul style="list-style-type: none"> <li><b>Amended Completion Date.</b> RCD is in the process of developing a "Continuity and Crisis Management Plan." This plan is intended to provide guidance in the event of an emergency or disaster. The amended completion date is September 30, 2007.</li> </ul>
<p><i>To improve the recording and tracking of 800 MHz system outages, their causes, and remedial actions taken.</i></p>	
<ul style="list-style-type: none"> <li>Develop a system or process to document all instances of 800 MHz system service interruptions. Included in that process will be the cause of the interruption, the date and time of the interruption, and the corrective actions taken to restore operation of the radio system.</li> </ul>	<ul style="list-style-type: none"> <li><b>Completed.</b> A process to document 800 MHz radio system service interruptions has been developed. A logbook to record and retain the cause, date and time, and corrective actions taken by staff is now maintained for use in future system evaluations and reviews.</li> </ul>
<p><i>To improve compliance with FAA regulations relating to tower lighting.</i></p>	
<ul style="list-style-type: none"> <li>Review FAA requirements for radio facilities in general and those relating to the City's radio towers specifically.</li> </ul>	<ul style="list-style-type: none"> <li><b>Completed.</b> RCD has reviewed the FAA requirements for tower light and created a binder of applicable FAA requirements for future reference.</li> </ul>
<ul style="list-style-type: none"> <li>Conduct and document an evaluation of the City tower sites and monitoring practices to ensure the City's compliance with FAA requirements.</li> </ul>	<ul style="list-style-type: none"> <li><b>Completed.</b> Each of the radio towers maintained by RCD was visually inspected for compliance with FAA lighting requirements. Employees have also been instructed to verify the operation of tower lighting every time they visit each tower.</li> </ul>
<ul style="list-style-type: none"> <li>Develop and maintain a logbook of all radio tower lighting outages in accordance with FAA requirements.</li> </ul>	<ul style="list-style-type: none"> <li><b>Completed.</b> A logbook to record radio tower lighting outages has been developed.</li> </ul>
<p><i>To review the emergency testing provisions of the 800 MHz system maintenance agreement and decisions previously made thereon.</i></p>	
<ul style="list-style-type: none"> <li>Clarify, and expand upon as needed, the scope of emergency testing to be conducted pursuant to the maintenance contract with Motorola.</li> </ul>	<ul style="list-style-type: none"> <li><b>Amended Completion Date.</b> Discussions were held with First Communications (the subcontractor retained by Motorola). A verbal agreement was reached that emergency testing assistance and/or participation would be provided. RCD still needs to determine what the emergency testing will be performed. The amended completion date is September 30, 2007.</li> </ul>
<ul style="list-style-type: none"> <li>The MOC will review the decision to not conduct emergency tests (based on the scope as clarified above) of the 800 MHz system and a decision will be made as to whether such emergency testing should occur.</li> </ul>	<ul style="list-style-type: none"> <li><b>Amended Completion Date.</b> The MOC began discussion as to what level of emergency testing of the 800 MHz radio system was appropriate. This issue is difficult due to concerns relating to what testing is feasible without potentially disrupting the system and impacting the operations of the public safety agencies. Before a decision was reached, the MOC was dissolved and the PSCB has not yet addressed any issues identified in report #0614. The amended completion date is September 30, 2007.</li> </ul>
<ul style="list-style-type: none"> <li>Emergency testing will or will not occur as determined by the MOC. If the decision is made to NOT conduct emergency tests, then the provisions for such tests will be removed from the maintenance agreement.</li> </ul>	<ul style="list-style-type: none"> <li><b>Amended Completion Date.</b> Until the PSCB addresses the issue of emergency testing, this step cannot be completed. The amended completion date is September 30, 2007.</li> </ul>

<i>To improve the physical access controls relating to the various 800 MHz system locations.</i>	
<ul style="list-style-type: none"> <li>Develop a process whereby issuances of keys are recorded and signed for by the individual receiving the keys.</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Completed.</b> A logbook of key issuances has been developed. Individuals are now required to sign for the key(s) issued to them.</li> </ul>
<ul style="list-style-type: none"> <li>Re-key existing locks with locks that require either high security type keys or new keys stamped "Do Not Duplicate."</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Completed.</b> The locks at the various 800 MHz radio system locations have been re-keyed.</li> </ul>
<ul style="list-style-type: none"> <li>Develop a process whereby RCD is able to review and determine who is able to access the prime site using the security system maintained by TPD.</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Completed.</b> A fence has been added to the further enhance security at the prime site. The keys to open the gate are controlled by RCD.</li> </ul>
<b>Table Legend:</b>	
<ul style="list-style-type: none"> <li>Issue addressed in the original audit</li> </ul>	<ul style="list-style-type: none"> <li>✓ Issue addressed and resolved</li> </ul>
<ul style="list-style-type: none"> <li>◆ On-going activities, completion date has been amended</li> </ul>	

### Conclusion

As noted in Table 1, seven of the 13 action plan steps due for completion this period have been completed. Progress has been made on three of the action plan steps and three are outstanding. The six steps not completed have had their completion dates amended to September 30, 2007. We did note that the completion of the three steps relating to conducting emergency testing is dependent on the PSCB. Currently the PSCB is working on the consolidation of City and County public safety dispatching for public safety agencies. We recommend that RCD bring this matter to the attention of the PSCB to help ensure these outstanding action plan steps are addressed in a timely manner.

We appreciate the cooperation and assistance of RCD during this audit follow up.

### Appointed Official's Response

**City Manager:**

The 800 MHz is an extremely important system as it provides radio coverage to our public safety and operating departments. I appreciate the follow up work of Auditing and would like to note that since the original audit, the Management Oversight Committee (MOC) was disbanded and replaced with the new Public Safety Communications Board (PSCB). As a result, some of the action plan items were delayed and new completion dates established. I would like to thank the City Auditor's staff and DMA/ISS for their efforts on this audit.

Copies of this audit follow up or audit report #0614 may be obtained from the City Auditor's website (<http://talgov.com/auditing/index.cfm>) or via request by telephone (850 / 891-8397), by FAX (850 / 891-0912), by mail or in person (Office of the City Auditor, 300 S. Adams Street, Mail Box A-22, Tallahassee, FL 32301-1731), or by e-mail ([auditors@talgov.com](mailto:auditors@talgov.com)).

Audit follow up conducted by:

Dennis Sutton, CPA, CIA, Sr. IT Auditor  
 Sam M. McCall, CPA, CGFM, CIA, CGAP, City Auditor