

**REPORT ON AN AUDIT OF THE 800 MHz VOICE CONTRACT
WITH MOTOROLA, INC.**

AUDIT PROJECT #9805

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I. SCOPE AND OBJECTIVES

Our audit plan included a review of the City of Tallahassee's contract with Motorola for Phase I of the 800 MHz Trunked Simulcast Radio (radio) system. The audit period was April 1997 to March 1999. Our objectives were to determine whether:

- the contract deliverables met the contract requirements,
- contract administration complied with City policy and procedures, and
- the accounting treatment for Motorola contract costs was proper.

Audit procedures focused on contract activity for the radio system and did not include an evaluation of the vendor selection process.

The data side of Phase I of the 800 MHz radio system was not part of this contract and was not included in our review. However, we did perform a limited review of the Motorola Data System contract in the Audit of the General Services Division of the Tallahassee Police Department (#9706), issued March 10, 1998.

II. METHODOLOGY

Our review was conducted in accordance with generally accepted government auditing standards and accordingly included tests of the records and other auditing procedures as we considered necessary under the circumstances.

The compliance criteria used for our review was taken from the contract documents. We compared the work performed by City staff and Motorola staff to the compliance criteria to determine whether the contract requirements were met. The audit staff did not observe the coverage testing nor review any acceptance test plans and cannot attest to the accuracy of the test results.

Periodic progress meetings were held with the audit liaison. These meetings served to inform the program administrators of the audit progress and as a discussion forum to enhance the effectiveness of the audit.

III. BACKGROUND

This audit was conducted under the authority of Section 33 of the Tallahassee City Charter and in accordance with our audit work plan.

Overview of the Motorola Radio Contract

On April 9, 1997, the City Commission approved a contract with Motorola, Inc., for a 13-channel Trunked Simulcast Radio (radio) system at a cost of \$8,819,133. This radio system, which replaces an outdated system, will provide enhanced communications for City departments, with the primary focus on public safety. The contract document was signed on April 18, 1997, establishing a 13-month installation and implementation period ending no later than May 18, 1998. However, the completion of the project was delayed to allow for the additional time needed to resolve coverage testing issues. The final acceptance of the system was approved November 20, 1998.

The contract includes the Articles of Agreement, Request for Proposal (RFP) as Attachment A, and Statement of Work (SOW) as Attachment B. According to Article I of the contract:

Motorola, in accordance with the SOW, shall perform or cause to be performed all services and shall furnish all equipment, materials, services, and labor required to complete and achieve acceptance of the “System” identified and described in this Agreement and the Attachments.

The radio system was to be designed around the four pre-selected tower sites.

Communication needs for Florida State University (FSU) totaling \$228,507 were also included in the contract with Motorola. FSU received their equipment and implemented their system in August 1998. Section 4.3 of the agreement between the City and FSU, dated November 18, 1998, permits FSU to use the 800 MHz radio system for a period of 10 years at no cost. The maintenance costs for this service are valued at approximately \$142,000. The agreement also includes an additional five years of prepaid maintenance of the radio system infrastructure for a fee of \$66,838.

Major Contract Concerns

The contract award process lasted 13 months from the time the Request for Information was issued on March 5, 1996, to the contract being awarded to Motorola on April 9, 1997. During this time period, major concerns were raised regarding (1) the ability of Motorola to provide the required coverage (minimum signal strengths over a designated area) with the four pre-selected tower sites, (2) the definition of the data needs, and (3) the potential for change orders that would inflate the contract cost. These topics were addressed in a number of City Commission workshops/meetings prior to the City Commission approval of the Motorola radio contract.

An extensive evaluation of the 800 MHz systems proposed by the two responsive vendors was performed by an 800 MHz Committee (representatives from Police, Fire, ISS, Utilities, and Parks and Recreation) and the City's consultants prior to recommending Motorola for the contract award. The City's consultants were responsible for the technical review of the proposals. As

recorded in the minutes of the September 18, 1996, City Commission meeting, Motorola provided an unconditional guarantee that 97% of the contours would be covered.

Prior to authorizing staff to open negotiations with Motorola in December 1996, the City Commission reviewed an evaluation by one of the 800 MHz consultants that questioned whether the proposed system would meet the coverage standards stated in the City's RFP. Staff found exception with the consultant's modeling tools and supported Motorola's proposal with its unconditional guarantee of the City's coverage standard. Specific directions were given by the Commissioners that the contract be negotiated to include:

- right of final approval by the City,
- firm parameters and timelines for testing the coverage with specific language in terms of the coverage level (signal strength),
- impact on the project if additional communication towers are needed, and
- penalties for project delays.

In addition, the contract was to be reviewed by both consultants prior to its execution. The City Commission also instructed staff that all change orders to the contract be submitted for their approval.

Coverage Testing

Since coverage level was one of the significant deliverables, coverage requirements were included in both the contract document and the SOW. Article 7.7 of the contract outlined the coverage test requirements:

Coverage tests, as a part of the Acceptance Test Plan (ATP), shall be conducted in accordance with the SOW requirements which shall include the following:

A. Verify equivalent CM3¹ level audio for portable radios equipped with speaker/microphone/antennas operating inside vehicles moving at 55 mph, and inside “dense” buildings²(as defined in the SOW), both at all locations within the corporate limits of the City.

B. Verify equivalent CM3 level audio for portable radios equipped with antennas attached to the portables, with the portables located at shoulder level in the pouch of a firefighter’s protective gear inside vehicles moving at 55 mph, and inside “medium” density buildings³ (as defined in the SOW), both at all locations within the boundaries of Leon County.

If the System fails to meet the coverage requirements described in this section 7.7, Motorola, at its sole cost and expense, shall modify the system as required to meet these coverage requirements and shall reimburse the City for all costs that the City incurs as a result of such failure and subsequent modification.

The coverage requirements were to be validated by two test plans: system and coverage, which were included in Attachment 6 of the SOW. The system test plan was designed to test and validate functionality of the system infrastructure

¹ CM3 (circuit merit 3) provides a performance level where speech is understandable with slight effort and occasional repetitions are required for clarification.

² There is a reduction in signal strength of 20 dB allowed for dense buildings.

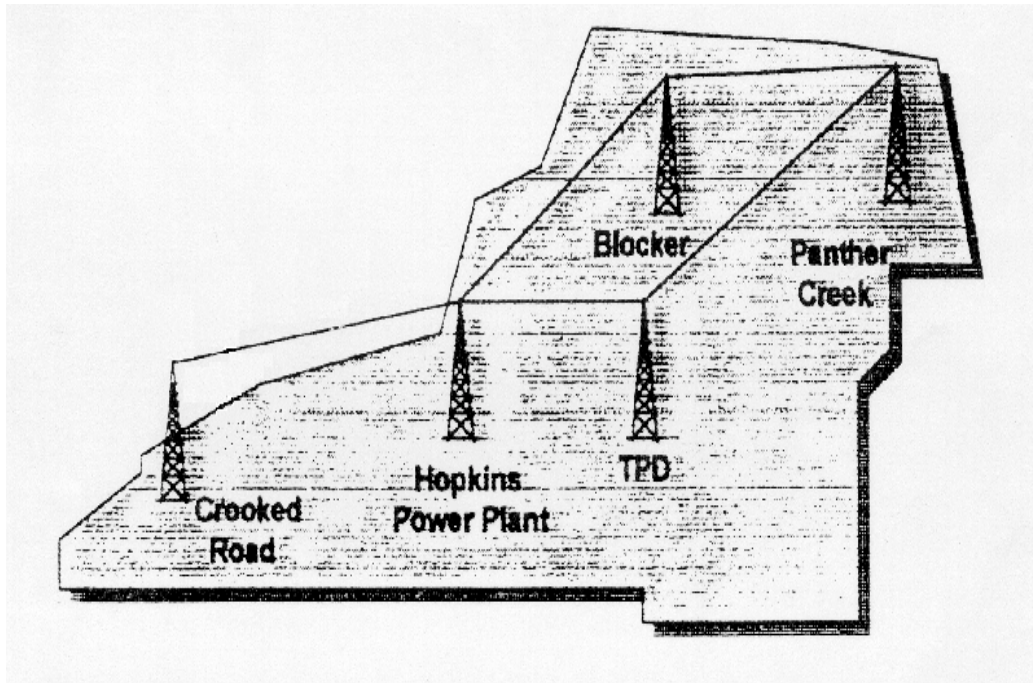
(fixed-end equipment, Smartnet system, and microwave system). Information Systems Services (ISS) staff indicated the results of the April 8, 1998, system test plan were acceptable.

The coverage test plan was designed to evaluate coverage provided by the system for portable/mobile radios in six different configurations. The configurations included the type of equipment being used outside as well as inside medium and/or dense buildings. Attenuation (i.e., reduction in signal strength) was introduced between the calibrated test receiver and the antenna to simulate the loss of transmission encountered inside buildings.

The initial coverage testing performed in June 1998 indicated that an additional tower site was needed to provide 97% coverage reliability. As a result, the system design was modified to include an existing microwave tower at the Hopkins Generation Plant. The tower was upgraded to a full simulcast site. Additionally, antennas originally installed at the Tallahassee Police Department (TPD) Prime Site were replaced with a different model designed to provide increased coverage. The Hopkins Tower provides coverage reliability in the northwest section of the City. The system modification required that the tower be 50 feet higher than that needed for Electric's purposes. Therefore, pursuant to the contract, Motorola was responsible for the incremental costs associated with the Hopkins Tower site. The five tower site locations are shown on Figure I.

³ There is a reduction in signal strength of 15 dB allowed for medium buildings.

FIGURE I 800 MHz Radio System Tower Site Locations



Source: Motorola's RFP submittal, modified for the fifth tower. Reprinted with permission from Motorola's sales representative.

Chronology of Contract Activity

A chronology of contract activity is shown in Table 1 below. Due to the unanticipated results of the coverage testing, certain events occurred to address the resolution of the test exceptions. We have only included selected contract payment activity. The chronology provides the reader a summary of the action taken to reach final acceptance of the 800 MHz radio system.

TABLE 1 Chronology of Contract Activity

<u>Date</u>	<u>Activity</u>
4/9/97	City Commission approved voice contract with Motorola.
4/18/97	Contract was executed.
6/1/97	Responsibility for 800 MHz project management was transferred from General Services to Information Systems Services.
9/19/97	The City Project Coordinator left the City.
9/20/97	The City's consultant was named interim City Project Coordinator until December 1997.
12/1/97	The new City Project Coordinator was hired..
4/5/98	City requested Motorola to return some equipment (tone remote sets) because of limited functionality.
4/13/98	Warranty period began (based on language in the statement of work). Coverage testing was scheduled for May 11, 1998.
4/29/98	Motorola denied return request, because the 3rd party supplier's 90-day return policy had expired.
5/11/98	Coverage test #1 was performed with unfavorable results.
5/13/98	City Commission ratified previous (unauthorized) change orders.
6/15/98	City inadvertently paid a data contract invoice against the voice contract purchase order.
6/28/98	Coverage test #2 was performed with unfavorable results. Decision was made to utilize Hopkins Tower for additional antennas.
8/15/98	Change Order #8, affecting both data and radio contracts, was recorded solely as a radio contract transaction.
10/9/98	Coverage test #3 was performed with unfavorable results.
10/20/98	Revised contract completion date (based on approved change orders).
10/21/98	City met with Motorola representatives to discuss the coverage test results and the discrepancy on the boundaries of the coverage map.
11/2/98	Motorola's letter to the City disputed claims that Motorola's coverage map was not sufficient.
11/9/98	City sent letter to Motorola stating if Motorola installs bi-directional amplifiers (BDA) within certain buildings, the City would accept the system.
11/20/98	<ul style="list-style-type: none">• City provided final acceptance of the 800 MHz TSR system.• BDAs had not been installed and permission was not obtained from all building owners.• City agreed to incur some cost for BDA installation at hospital. (No costs were incurred.)
12/98	City staff decided to delay paying final Motorola invoice until BDAs were operational.
2/26/99	BDAs were installed and 800 MHz TSR system became fully operational.

IV. CONDITION STATEMENTS AND MANAGEMENT ACTION PLANS

The results of our contract review fell into two categories: contract and financial issues. In many cases, we found that documentation was not adequate to support certain project and contract decisions.

The Technology Infrastructure Administrator (TIA) was appointed as the City Project Coordinator in Article 9 of the contract. The first TIA left the City in September 1997, and the City's consultant served as the City Project Coordinator until December 1, 1997, when the new TIA began. Some of the audit issues occurred prior to the new TIA's employment.

In January 1998, the new TIA directed that all contract administrative activity (invoice payment, change orders, etc.) be halted to provide him an opportunity to review previous contract activity. It appears that previous contract activity was not well documented for a smooth transition. In our opinion, the lack of project documentation standards contributed to the issues identified in this report.

Overall, we found that staff's focus, when monitoring compliance, was limited to the technical aspect of the project contained in the statement of work. This created a problem when the language in the statement of work differed from the Agreement. Based on a provision in the Agreement, the language in the agreement had precedence over the statement of work. Therefore, both documents should have been used to determine if the deliverables met the requirements.

A. Contract Issues

A1. The boundaries of the coverage area maps submitted by Motorola were less than the contract requirements (1996 jurisdictional city limits).

The language used to define the coverage area requirements in the City's documents was the jurisdictional city limits. However, Motorola submitted a proposal using the term "coverage area" identified by their maps. The coverage area shown on the map submitted by Motorola was somewhat less than the jurisdictional city limits (dated September 1996) and equated to about 97% of the city limits. Motorola's coverage area map excluded approximately two square miles in the southeast section of the 1996 city limits, which was annexed by the City in 1993. We reviewed the results of the technical evaluation performed by the consultants prior to the execution of the contract and found no reference to a discrepancy in the coverage area.

The smaller coverage area also reduced the number of grids necessary to meet the coverage test requirements. The coverage area was divided into 440 one-half mile grids, and each was tested electronically to determine the level of radio reception. Based on Motorola's coverage map, the minimum number of passing grids was 427 of the 440 grids (97%). The test results indicated that only 427 of the 440 grids passed. If the 1996 jurisdictional city limits were used in the coverage test, four additional grids would have failed thus making the test results unacceptable. The decision to omit the four grids in question from test #3 was made by the City Project Coordinator as he indicated in his letter to Motorola dated October 15, 1998. It should be noted that those four grids were included in coverage test #2, also with unfavorable results. The test results are discussed in more detail in Condition Statement A2.

City staff met with Motorola representatives on October 21, 1998, to discuss the discrepancies regarding the test plan process and the subsequent results. Motorola provided an option to increase the overall number of passable grids within the city limits by moving the equipment from the Hopkins Tower to a Motorola-owned tower in the northeast. However, this change would negatively impact coverage in the northwest and improve coverage in a sparsely populated section of the northeast. According to City staff, the Hopkins site was retained for public safety reasons, and no further action was taken at the discretion of City staff. As discussed in Condition Statement A2, the agreed upon solution was to have bi-directional amplifiers installed in selected buildings.

Our review of the contract provisions indicates that Motorola should have been responsible for the errors made in providing a map that did not reflect the jurisdictional city limits. Section 4 of the contract states:

The City's approval of any engineering or design documents/specifications shall not relieve Motorola of the responsibility to meet all of the requirements for the System as set forth in this Agreement and to correct any errors/omissions in such documents/specifications. Motorola shall have no claim for additional costs resulting from any such corrections or performance or for any delays in performance arising from such correction or performance.

There was further disagreement between Motorola and the City regarding which reference to coverage area in the contract documents (Agreement, RFP, and/or SOW) actually defined the boundaries of the coverage area. The City held

the position that the coverage area was defined in section 7.7 (provided in the background section on page 6).

A provision was included in the Agreement to address the order of precedence in the event there were any differences between contract documents. According to Section 20 of the contract, the order of precedence was the Agreement (contract), SOW, RFP, and then Motorola's RFP submittal. City staff did seek legal counsel on how to proceed. The City Attorney's Office encouraged ISS to find a "practical" solution.

It is our opinion that staff should have referred further negotiations on coverage issues with Motorola to a higher level of City management. ISS and legal staff met once with Motorola regarding the differences in opinion on the coverage area. Motorola submitted a letter that outlined the basis for their position. That letter was received by the City Attorney's Office on November 6, 1998, and distributed to relevant staff on November 9, 1998. ISS did not prepare nor ask legal staff to prepare a rebuttal. Prior to moving forward with final acceptance, staff should have documented the strength of the City's position. The City Project Coordinator approved the final acceptance without ensuring all contract deliverables were met (see discussions in Condition Statements A2 and A4). In the future, on major projects, an executive level steering committee should be appointed to review and approve significant contract milestones. Steering committees are currently in place for the payroll and financial management systems implementation projects. This practice should be codified in the Information Technology Acquisition Policy (#801).

A2. Final system acceptance was approved by City staff prior to Motorola satisfying requirements for adequate signal strength within certain buildings located within the city limits.

The City provided final acceptance of the 800 MHz radio system on November 20, 1998. At that time, there were outstanding issues with signal strength within certain buildings located within the city limits. Based on the contract, the final acceptance authorized the final payment of \$870,185 and should have triggered the start of the warranty period. However, we found that the warranty period was initiated in April 1998 based on language provided in the statement of work. (See Condition Statement A5 for additional details.)

To ensure adequate signal strength, additional equipment, called bi-directional amplifiers (BDA), was needed in selected buildings. This equipment was not included in the original design of the 800 MHz radio system. The BDAs were being installed to compensate for the discrepancies between Motorola and the City on the boundaries of the coverage area, as discussed in Condition Statement A1.

The City sent a letter regarding the proposed BDA solution to the Motorola sales representative on November 9, 1998, and stated:

Having reviewed the options presented by Motorola for addressing the deficiencies, City staff is willing to provide final system approval if Motorola installs bi-directional amplifiers within certain buildings identified by the Tallahassee Police and Fire Departments and, through use of the ATP (*test plan*), establishes that the signal strength in those buildings meets or exceeds the minimum signal strength requirements....The City will be responsible for obtaining the required permission of the owners of such buildings for installation, operation, and maintenance of the amplifiers.

Three buildings, Wal-Mart Super Center, Tallahassee Memorial hospital, and Dillard's, were selected as a result of the negotiations to address signal strength requirements. As of the date of final acceptance, November 20, 1998, the BDAs had not been installed nor had City staff obtained permission from the management of the three sites to install the equipment.

Additionally, City staff agreed in writing to cover some of the installation costs for the hospital's BDA. This contradicts the language in section 7.7 of the contract that required Motorola to incur all costs for any system modifications to meet the coverage requirements. According to Motorola's BDA system design for the hospital, dated November 20, 1998, "The City will be responsible for the installation of all radiax cable and transmission line from the elevator penthouse through the emergency room, and will supply conduit and other material necessary to facilitate its installation. The City will also make sure that an electrical circuit is available in the storage room where the BDA will be placed." The estimated installation costs were not available at that time.

ISS management has been responsive to these contract issues. The staff of the Department of Management & Administration and ISS decided not to pay the final invoice until after the BDAs were operational. The final invoice was received on April 30, 1999. In addition, the hospital agreed to cover the additional BDA installation costs discharging the City of that extra expense. The BDAs were installed and operational February 26, 1999.

A3. Change orders should have been submitted for system changes due to noncompliance of coverage requirements and the resulting time delays.

We found that system design changes and time extensions were approved by the City Project Coordinator without obtaining approval for the changes as

required by the City's change order process. Section 8 of the Purchasing Manual and Section 608.04(P) of the Capital Project Management Policy both require a change order for a change in scope, timing, or cost. The change order process serves as a communication tool to higher levels of management as well as an approval mechanism. According to Section 5.4 of the contract:

If the City Project Coordinator reasonably rejects the test program data or determines that the test results do not conform to the requirements of the ATP (*test plan*) or this Agreement, the evaluation report shall indicate the basis for said findings and describe all deficiencies. Motorola shall then have forty-five (45) calendar days to correct the deficiencies noted in such report, at which time the test(s) will be rescheduled.

Change orders were justified in two situations as follows:

- The results from coverage test #2 were unfavorable. To address the coverage issues, the system design was revised to include additional tower height and equipment at a fifth (existing microwave) tower site in order to meet the coverage requirements. In addition, the timing between test #2, performed in June 1998, and test #3, performed on October 9, 1998, exceeded the 45-day limit.
- The system was also modified in November 1998 to include bi-directional amplifiers to improve signal strength in certain buildings within the city limits. The revisions were completed February 26, 1999,

which also exceeded the 45-day limit. (See Condition Statement A2 for further details.)

In both cases, the system design was revised to allow additional and/or new equipment from the original specifications. These changes then required additional coverage testing to ensure compliance which took longer than the 45 days allowed in the contract. City staff approval of these system design changes contradicted City Commission direction, given on December 11, 1996, that all Motorola contract change orders be submitted for their approval.

Since the required change orders were not processed, the City Commission was not given the opportunity to address the issue of the time delays. Section 17.3 of the contract provides for liquidated damages, in the amount of \$500, for each day the System remains incomplete beyond such final completion date, beginning with the day subsequent to the final completion date. Due to previously approved time extensions, amending the completion date to October 20, 1998, the liquidated damages would be approximately \$60,000 (120 days @ \$500 per day) since the BDAs were operational at the end of February 1999. Both legal and ISS staff indicated that they would not have pursued these damages, since Motorola (in their opinion) was acting in good faith to correct the deficiencies.

A4. Deliverables should have been verified to ensure that they were received prior to approving invoices for payment.

We found three cases where invoice payments were made without verification of the deliverables. The City Project Coordinator has a fiduciary responsibility to withhold or adjust payments based on the results of verifying the deliverables. Article 11 of the contract states:

Additionally, such invoices shall contain sufficient detail to allow the City Project Coordinator to verify the cost of equipment and services included in the invoice, to verify that services included in the invoice have been performed, and to verify that the costs for such equipment and services are properly categorized.

The three findings are discussed below:

Verification of equipment

The equipment received for the 800 MHz radio system has not been compared to the items/quantities ordered per the contract. ISS staff indicated that the detailed list of equipment ordered was provided by Motorola at the onset of the contract. Since that time, there have been numerous change orders that have altered the original list. ISS staff asked Motorola to provide an updated order list to the City so that the reconciliation can be performed.

Prior to the equipment being placed in service, Motorola's service provider attached the FARR (fixed asset receipts report) tags and prepared a spreadsheet that listed all items assigned by City department. The spreadsheets provide detailed information about each item including the person who picked it up. In the "picked up item" column for the mobile radios, there were 47 instances where the entry is "unknown."

The Tallahassee Police Department (TPD) plans to verify the inventory of its mobile/portable radios in the near future. However, this will not address non-TPD items nor indicate whether the inventoried items agree with the items ordered. ISS should pursue verification of the received equipment/radios to the ordered quantities.

According to the contract, Motorola and the City were to reconcile the equipment received to the contract order prior to final acceptance of the system. Section 1.1.1 states:

Thereafter, such equipment will be shipped by Motorola directly to each of the Communication Sites designated by the City Project Coordinator. Motorola and the City will jointly inventory the equipment at such sites and shall immediately reconcile any discrepancies and prepare a list of equipment received....Risk of loss and damage to such equipment shall be borne by Motorola until the Date of Final Acceptance of the SYSTEM....

As stated in Section 1.1.1 above, the risk of loss for equipment was transferred to the City on November 20, 1998, when the final acceptance was authorized by the City Project Coordinator.

Additionally, controls should be implemented to properly safeguard the equipment. ISS should develop and implement a log in/log out process throughout the City for all 800 MHz radio equipment that is loaned out or sent off for repair to track the location of the assets. This would establish a process to be used by all 800 MHz radio system users. A decision should also be made to determine whether the periodic inventory responsibility should be centralized in ISS (similar to personal computers/printers) or decentralized in the user departments.

Motorola Training

The contract included \$81,856 of costs to provide training for the users. The training invoice for \$78,795 was paid on July 21, 1998. However, in January 1999, staff indicated there would be an excess of contract funds totaling \$27,000 for unused training dollars. Staff indicates that the contract payment schedule was not correct and that it should have provided for \$101,856 in training. This error

should have been detected and the payment schedule corrected at that time. It is our understanding that the \$27,000 credit would be taken in the last payment.

Systems Design Review

The contract included \$1,322,870 for the systems design review which accounted for 15% of the contract amount. The previous City Project Coordinator approved the invoice for payment in June 1997 even though that invoice was overstated by \$35,247 when the payment was made. The credit resulted from (1) the deletion of 960 MHz system equipment at Florida Power and an 80 kW generator at TPD and (2) the addition of 91 tone remotes and 3 Spectra desktop control stations. If the deliverables had been verified, the invoice would have been adjusted prior to payment. The invoice, which included the \$35,247 adjustment, was received on July 6, 1998, and the credit was taken on August 14, 1998.

In summary, management should ensure that staff responsible for monitoring contracts, approve payments only for services that have been provided. The Department of & Administration (DMA) should ensure that this requirement is clearly communicated and appropriate actions taken when exceptions are noted.

A5. The warranty period was initiated seven months earlier than required by contract.

The City provided Motorola with written notification that the warranty period would begin on April 13, 1998, since that was the date users were transferred to the new radio system. This decision was based on provision 8.2 of the statement of work which allowed for the warranty to begin on the date of first beneficial use of the system. However, section 7.3 of the contract states that the

warranty should start on the date of final acceptance, which was November 20, 1998.

We referred to the order of precedence provision to determine whether the contract or the SOW should have initiated the warranty. According to Section 20 of the contract, the order of precedence was the Agreement (contract), SOW, RFP, and then Motorola's RFP submittal. Using that order, the warranty period should not have started until November 20, 1998. Based on an estimated \$35,000 per month post-warranty maintenance fee, the City will incur additional costs of \$245,000 for warranty services. The City Attorney has reviewed this issue and determined that it would not be prudent to try and recover any of these warranty costs.

A6. Written user agreements should be finalized and fees collected prior to providing equipment and/or services to the 800 MHz radio system.

Written user agreements are used for subscribers to the City's 800 MHz radio system. Florida State University (FSU), the first subscriber, chose to purchase \$228,507 of equipment as part of the City's contract with Motorola. An agreement was developed between the City and FSU to establish basic parameters relating to the acquisition of equipment for FSU and its use of at least two talk groups on the radio system.

FSU implemented the system in August 1998 to enhance their public safety communication network. However, the user agreement was not executed until November 18, 1998. FSU's repayment of the equipment could not be processed until the agreement was executed. The \$228,507 invoice was issued on December 27, 1998. The agreement stated that payment should be made within 30 days

following delivery of the equipment. The payment was received March 22, 1999. We encourage management to handle these transactions in a more timely manner in the future.

Further, there is an outstanding issue regarding maintenance fees for an additional five-year term, totaling \$66,838, established in section 4.3 of the FSU user agreement. It is not clear in the agreement whether this amount is to be prepaid or is due in November 2008. Staff should clarify this point as the contract does not specify the timing of the payment. If the payment is not due until November 2008, the City Project Coordinator should determine how the future payment will be billed and received.

Section 3.4 (F) of the contract allows for 800 MHz radio system users authorized by the City to purchase any equipment, spare parts, test equipment, or services described in the SOW or Agreement at the price set forth in the contract for a period of two years from the Date of Final Acceptance. Since the eligible purchaser must be authorized by the City as a system user, those interested in this option should also be required to sign a written agreement with the City as to the basic parameters of their use of the City's system. ISS should establish a process to ensure that City resources are protected.

There have also been other cases where 800 MHz radio equipment has been issued prior to the execution of a written agreement. While we understand the public safety issue, it would be prudent to protect the City by ensuring the basic parameters are established in writing prior to releasing equipment to outside parties. Therefore, a shell user agreement should be developed that can be executed more timely.

A7. Some equipment ordered has not been installed, and the decision on its usefulness is uncertain.

Equipment needs for the 800 MHz radio system were determined in March and April 1997. The philosophy at that time was to replace existing equipment item for item with new technology. There were 105 existing tone remote sets, the majority residing in the Fire Department. Based on the limited documentation located, we found that 91 tone remote sets were ordered in change order #1, dated September 16, 1997. We could not find any documentation to disclose what had been budgeted or ordered prior to this time. According to Motorola's records, 7 have been installed, 105 are at the City's Radio Shop, 1 is still at Motorola's service provider, and 2 cannot be located. City staff has not verified Motorola's count.

ISS indicated that the tone remote sets have limited functionality when used with a 13-channel system, and no decision has been made whether they can even be utilized. The cost for the yet-to-be-installed equipment totals \$40,500 (108 @ \$375 each), and the equipment cannot be returned. For future contract activity, all equipment needs should be documented and maintained to justify their usefulness.

Motorola ordered the tone remotes for the City through a third party supplier. The return policy for this equipment was limited to 90 days from the receive date. On April 5, 1998, the City Project Coordinator requested Motorola to return some of the tone remote sets due to their limited functionality. Motorola informed ISS on April 29, 1998, that the supplier had denied the equipment return because the request came after the 90-day return period. City staff did not attempt to get Motorola to share the cost of this unnecessary purchase.

In summary, we have discussed these contract issues with ISS management, and they agree improved contract administration would ensure:

- contract requirements are verified before the final acceptance is approved,
- change orders are processed according to City policy, and
- user needs are met.

The following action plan has been developed by ISS management to improve contract administration within their department.

Objective: To improve contract administration within ISS.

Step #	Action/Task	Responsible Employee	Target Date
1.	Determine when the payment for FSU's additional five-year term, totaling \$66,838, is due and proceed as necessary.	Terry Baker	8/31/99
2.	Ensure that all equipment was received by comparing the contract deliverable listing to the inventory of items received.	Leven Magruder	8/31/99
3.	Determine whether the periodic equipment inventory responsibility should be centralized in ISS or decentralized in the user departments. Implement the appropriate procedures.	Terry Baker	8/31/99
4.	Document the procedure on providing for other purchases (pursuant to section 3.3 F) and/or system use that will ensure agreements are signed prior to equipment delivery and/or system use.	Terry Baker	8/31/99
5.	Revise the IT Acquisition policy to require an executive level steering committee for major projects.	Don DeLoach	8/31/99
6.	Develop shell user agreement.	Terry Baker	11/30/99
7.	Provide project managers with adequate training and guidance on their responsibilities to ensure compliance with City policy and procedures and contractual requirements.	Don DeLoach	12/31/99

B. Financial Issues

Audit steps were performed to determine whether the accounting treatment and accounting of Motorola's contract costs were handled properly. These were accomplished by determining whether: (1) the contract payment terms were complied with, and (2) proper internal accounting practices were followed. The payment terms for the Motorola voice contract are found in Article 3 in the

Articles of Agreement and the Statement of Work (SOW). Table 2 shows the Milestone Payment Schedule that was included in the SOW.

TABLE 2 Milestone Payment Schedule

Milestone Sections	Milestone Payment	Total All Payments
A. System Design Review Completed (15%)	\$1,322,869.90	\$1,322,869.90
B. Delivery and Installation (75%)		
Antenna and Tower Delivery and Installation	1,188,117.83	2,510,987.73
Equipment Buildings and Installation	546,505.28	3,057,493.04
Emergency Generator System and Installation	208,549.42	3,266,042.43
Completion of FNE Staging at CCSI	2,971,894.61	6,237,937.04
Installation of FNE equipment	1,586,368.48	7,824,305.52
Training	81,856.23	7,906,161.75
Subscriber Units Delivery/Inventory	42,786.37	7,946,948.12
Subscriber Units Programming/Installation	0	7,946,948.12
C. Final Acceptance (10%)	\$870,184.88	\$8,819,133.00

The Delivery and Installation phase was divided into seven payments. The City was to provide written acceptance to Motorola upon completion of each milestone before a payment would be processed. The City had to accept the system prior to Motorola issuing the final invoice. The final payment was due 45 days after the receipt of the final invoice. Contrary to the contract requirements, we could not find adequate documentation (approved Installation Certificate Completion forms) that evidenced the City’s acceptance of the work that corresponded to each milestone payment prior to invoices being processed.

The following issues were identified as part of our review of the financial components of the project. In our opinion, the lack of processes to verify invoiced amounts against contract terms and noncompliance with the change order policy contributed to the issues identified. Please note that we have provided one action plan for all financial issues.

B1. Accelerated payments were made for the Antenna and Tower Delivery and Installation phase.

The \$1,188,118 payment milestone for the Antenna and Tower Delivery and Installation was listed as a single payment within the Delivery and Installation section of the payment schedule. The costs were invoiced on three separate invoices rather than a lump sum. Therefore, City staff approved and processed payments ahead of the schedule set forth in the contract. The lump sum was not due until February 23, 1998, when the installation was completed and all of the sites had been approved. Table 3 shows the dates and amounts of the payments as well as the foregone interest based on interest rates provided by the Treasurer-Clerk’s Office for the three-month period. The foregone interest on the accelerated payments represents amounts that would have been earned if payments were made in accordance with the Milestone Payment Schedule.

TABLE 3 Foregone Interest due to Accelerated Payments

Invoiced for	Date	Payment Amount	Foregone Interest (1)
TPD site	12/19/97	\$387,761	\$3,935
Panther Creek site	12/19/97	\$225,213	\$2,287
Crooked Road site	1/8/98	\$228,527	\$1,616
Blocker site	2/23/98	\$223,332	
Microwave antenna systems	2/23/98	\$123,285	
Total		\$1,188,118	\$7,838

(1) Interest rates were 5.66% for 12/97; 5.5% for 1/98; and 5.46% for 2/98.

While the foregone interest may appear immaterial, the accelerated processing of the payments reflects noncompliance with the contract requirements that had been agreed upon by both the City and Motorola.

B2. A reconciliation process should have been implemented to ensure that (1) the vendor invoices complied with the contract payment schedule, and (2) payments were properly recorded in the City's financial records.

The City had executed two separate contracts with Motorola related to the 800 MHz radio system: one for data and one for radio. An invoice totaling \$1,337,987 for the data contract was paid against the purchase order established for the radio contract. A pay request form was used for this transaction. This error, made in June 1998, was not detected until October 1998 when the purchase order balance for the radio contract was not sufficient for the next invoice. Without a reconciliation process, these types of errors are not detected until a subsequent invoice is processed and available funds are not adequate to cover the payment. The required corrections were labor intensive, because the error impacted multiple purchase orders, funds, and projects. ISS management should establish a reconciliation process to compare amounts invoiced to the contract payment schedule. This type of error would have been prevented if such a process were in place.

A reconciliation process would require staff to compare each invoice to the contract payment schedule and research any differences prior to processing the payment. The process should also include steps to adjust the schedule for any change order activity, verify the purchase order balances, and review the project's expenditures to ensure the charges are recorded correctly. The reconciliation process should be documented, signed, and dated to evidence the review was performed.

B3. The majority of the costs for the Motorola contract were budgeted and coded as unclassified professional fees rather than unclassified equipment.

The radio contract with Motorola was to provide equipment (radios, consoles, etc.) and towers. The budget for the contract should have classified the cost as installed equipment. However, only \$1,447,870 of the \$9,735,003 adjusted budget (15%) was set up to “unclassified equipment.” The majority of the remaining costs were set up as “unclassified professional fees” (object code #522400). There is a control in the City’s Financial Management System to trigger a process for fixed asset identification and tagging when the costs are charged to a capital outlay object code (56xxxx). The process becomes much more labor intensive, and there is a greater potential for error, if this code is not used.

A memo was issued to all department directors in March 1997 addressing the improper classification of capital outlay expenditures. It specified that charging expenditures to the wrong budget code had the following impacts:

- Budget, financial and regulatory reporting may be distorted.
- Capital items may not be identified and added to the City’s fixed asset inventory system.
- The reconciliation process for comparing expenditures from the capital outlay accounts to fixed asset additions is prolonged since Accounting Services staff has to identify the misclassifications.
- Manual entries are required to properly classify the items in the Financial Management System (FMS).

We also found that the Motorola 800 MHz radio system currently being installed at the Airport, priced at \$380,000, was set up to unclassified professional fees. The budget should be corrected to prevent any further misclassification of costs.

Management should consider implementing training designed to ensure accurate cost classification. Project and contract cost accounting training is needed so that the appropriate line items are established when the project is opened. More specifically, fixed asset accounting training should be given so that project managers can ensure all fixed asset items are properly identified with the FARR tags and recorded accurately in FMS.

B4. The use of change orders should adhere to the City's established policy.

The proper use of change orders for the contracts within the 800 MHz radio system project was addressed when we performed a limited review of the Motorola data system in the Audit of the General Services Division of the Tallahassee Police Department (#9706). There were unauthorized change orders identified for both the voice contract and the data contract that were ratified by the City Commission at the May 13, 1998, meeting. The previous City Project Coordinator had combined increase/decrease transactions so that the net amount would be within departmental approval, and thus bypass the proper approval process.

During our review, we identified another discrepancy with a subsequent change order. Change order #8, processed in August 1998, included an increase of \$14,700 for the Motorola data contract and a decrease of \$11,320 for the radio contract. The reason for the change was explained as "Delays caused by necessity to rework installation of MW520 data units in vehicles." The net increase of \$3,380 was processed as a change order against the radio contract. These two transactions should have been processed separately against each contract rather than being combined.

Management should ensure that project management staff understand the importance of complying with established controls for contract change orders. The

change order process serves as a communication tool to higher levels of management as well as an approval mechanism. Excluding the Airport 800 MHz radio system, change orders to the voice contract have totaled \$535,870. We found that five of the eight change orders were not processed according to the City's established procedures. Additionally, as directed by the City Commission on December 11, 1996, all change orders should be brought to them for consideration. Management should ensure that controls for change order activity are adhered to and appropriate actions are taken when policy exceptions are detected.

ISS management has developed the following action plan to address the financial issues.

Objective: To ensure internal accounting practices and change order processes are followed when administering a contract.

Step #	Action/Task	Responsible Employee	Target Date
1.	Issue a management directive to all project managers to comply with the change order process.	Don DeLoach	4/1/99
2.	Develop and implement a procedure to ensure that staff responsible for processing contract payments is provided with a copy of the contract and any related payment schedules.	Don DeLoach	4/1/99
3.	Develop and implement a reconciliation process for all contract activity.	Terry Baker	8/31/99
4.	Develop and implement a procedure to ensure that cost classification (funds, object codes, etc.) for all contracts is reviewed by management prior to establishing the account coding for the purchase order used for contract activity.	Don DeLoach	8/31/99

V. EXIT CONFERENCE

An exit conference was held on May 10, 1999. Those attending were:

Executive Office

David Reid, Director of Management and Administration

Dinah Hart, Administrative Services Manager

Information Systems Services

Don DeLoach, Chief Information Systems Officer

Terry Baker, Technology Infrastructure Administrator

Leven Magruder, Project Manager

Auditing

Roberta McManus, Interim City Auditor

Joanne Becknell, Acting Senior Auditor