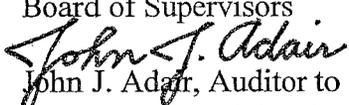


FAIRFAX COUNTY, VIRGINIA

MEMORANDUM

TO: Board of Supervisors  
FROM:   
John J. Adair, Auditor to the Board  
Office of Financial and Programs Auditor  
DATE: July 28, 2005  
SUBJECT: Quarterly Status Report on Operations

**EXECUTIVE SUMMARY**

After determining earlier this year that 100 vehicles with low usage in FY 2004 would be removed from the fleet, County staff looked this quarter at opportunities for reductions of vehicles with low usage in FY 2005. The Director, Department of Vehicle Services, sent notices in May to agencies with low usage vehicles requesting that a full justification for retaining these vehicles be provided no later than May 27, 2005.

The Fleet Utilization Management Committee is reviewing agency responses, and will meet in July 2005 to recommend which vehicles should be turned in. We will report on the Committee's actions in our September Quarterly Status Report.

We turned over the results of our previously reported review of land owned by the Board of Supervisors to a new Property Review Committee that will be advising the County Executive with regard to the use and/or disposal of County, and School surplus, real property.

Also this quarter, at the Board of Supervisors' request, we began a review of contracts issued from 1984 to the present involving the computer aided dispatch (CAD) system operated through the County's public safety communication center. Problems involving operation of the most recently purchased software for the CAD system, called Altaris, and questions involving sole source contracts awarded to maintain and improve the CAD system since 1984, had been reported in an April 2005 newspaper article.

Contractor personnel have been correcting more than 400 problems that had been reported involving the CAD Altaris system. They had eliminated virtually all of these problems by the beginning of July 2005.

We will continue our review of CAD system contracts and related problems during the next quarter to determine lessons learned that may be used during the award and management of a new CAD contract, expected to be solicited later this year.

**CONTINUED REVIEW OF  
UNDER UTILIZED VEHICLES**

After a review of the County's vehicle fleet, the County Executive announced in January 2005 that 117 vehicles with low usage in Fiscal Year 2004 would be rotated, reassigned, or sold. These vehicles were to be turned in to the Department of Vehicle Services facility that maintains them as soon as possible.

In addition, a Fleet Utilization Management Committee composed of County staff was created to, among other things, conduct annual reviews of low usage vehicles.

This quarter, the Committee began an analysis of vehicles that had low usage in Fiscal Year 2005.

**FY 2005 Low Mileage  
Utilization Analysis**

Based on Procedural Memorandum 10-06, on an annual basis the Department of Vehicle Services is to identify vehicles that have low utilization and forward the list to the appropriate Department Director for justification.

On May 5, 2005, the Director, Department of Vehicle Services, sent a memo to each Department that had vehicles driven less than 4,500 miles in the 12 month period ending March 31, 2005. Originally, the plan was to review vehicles that had been driven less than 5,000 miles for Fiscal Year 2005. However, the Director's memo said that recognizing that agencies have not yet had a full year to take corrective action, the Fiscal Year 2005 mileage requirement had been reduced to 4,500 miles.

As part of this analysis, vehicles were excluded if they have been in service, or assigned to the current agency, for less than a year.

The memos requested that, to assist the Fleet Utilization Management Committee in determining whether or not the low utilization vehicles should be retained, the Departments should complete a low mileage analysis questionnaire for each of the vehicles and return them no later than May 27, 2005.

The questionnaire addressed such matters as the accuracy of the mileage shown for the year, and whether the mileage for the year was an anomaly due to the vehicle being out-of-service due to a lengthy repair, or the extended vacancy of the driver.

Departments were asked to provide information on the operational impact to the Department of losing a vehicle, and to provide any other information that would aid the Fleet Utilization Management Committee in its decision. The name, phone number, and

e-mail address of a person the Committee can contact with any questions about each vehicle were also requested.

Staff at the Department of Vehicle Services said that responses had been received from the Departments. The Fleet Utilization Management Committee is scheduled to meet in July to render decisions as to which vehicles should be retained and which should be turned in to the Department of Vehicle Services.

Decisions of the Committee will be provided to the Departments, and the decisions can be appealed to the County Executive.

We will report on the actions of the Committee in our September Quarterly Status Report.

### **CREATION OF COMMITTEE TO OVERSEE COUNTY PROPERTY**

In November 2004 the Board of Supervisors' Audit Committee requested that we look at County property owned by the Board. Specifically, they asked that we inventory the property and categorize it as to actual or potential use.

Our March 2005 status report discussed property titled in the name of the Board of Supervisors. As of January 1, 2004, the Board owned approximately 750 parcels situated on 4,406 acres of land. While 138 of the parcels had improvements on them, the remaining 612 were vacant.

These 750 parcels did not include the land owned by County agencies such as the Park Authority and the Department of Housing and Community Development, or public school property.

We worked with County staff to categorize and analyze the parcels owned by the Board of Supervisors. For each property, we listed the parcel identification number, tax district, total acres, legal description, and location description. In addition, we attempted to classify each parcel by its use. This is important for any future determination of how the property may be maintained, reused, or disposed of.

In meetings with County staff, a number of issues appeared to warrant further discussion and review. The primary issues include determining:

- Whether the inventory of Board-owned property should be enhanced and updated periodically by a County agency; and
- Whether the County should have a Senior Real Property Committee to ensure the effective management of Board-owned and other County property.

Property Review Committee  
Creation, Composition and Charter

During this quarter, the County created a Property Review Committee to oversee the Board-owned and other County properties as well as School surplus real estate. The new Committee oversees and coordinates the acquisition, maintenance, reassignment, and disposal of such real property.

We met with the Committee on May 31, 2005, and turned over the information we had collected during our review. We also worked with Committee members as they began their operations.

According to the Committee Charter, the Committee is composed of the:

- Chief Financial Officer (Chairman)
- County Debt Manager (Co-Coordinator)
- County Property Manager (Co-Coordinator)
- Director, Department of Planning and Zoning
- Deputy Director, Department of Public Works and Environmental Services
- Deputy County Attorney
- Assistant County Debt Manager

In addition, there are Technical Advisors to the Committee, including the Director, Department of Management and Budget (or designee), personnel from Bond Counsel, the Departments of Planning and Zoning, Public Works and Environmental Services, and Housing and Community Development, the Park Authority and other affected County agencies as necessary.

This Committee charter states the Committee will advise the County Executive on all matters pertaining to the review of County, and School surplus, property. The Committee shall be expected to provide sound advice, consistent with the best practices of State and local governments, the policies of the Board of Supervisors and in the best interests of the County with regard to use and/or disposal of governmental property.

We believe this Committee will help encourage responsible stewardship in the management of County-owned property and provide consistent guidelines for property acquisition, maintenance, reassignment, and disposal.

REVIEW OF COMPUTER AIDED  
DISPATCH SYSTEM CONTRACTS

At its April 25, 2005, meeting, the Board of Supervisors discussed problems involving the County's Computer Aided Dispatch (CAD) System.

The original CAD System was purchased from Planning Research Corporation (PRC) of McLean, Virginia in 1984, following a contract bid process. Over the past 20 years, additional contracts were awarded periodically on a sole source basis to update the system.

Serious problems have occurred after award of the most recent contract to modify the CAD system. This system was acquired in November 2000 on a sole source basis from Litton PRC, which was purchased by Northrop Grumman in 2003. The new System, which incorporated software known as "Altaris", became operational in May 2004.

The Board of Supervisors directed our Office to review and report on the "entire CAD acquisition and contract history from 1984 to the present, including the decision making process and factors which may have influenced the process". The Board asked that the report on this matter include recommendations for policy or procedures that will prevent a repetition or recurrence of such a problem.

Since this review will cover contracts awarded over a 20 year period, and involves several County Departments, we intend to issue a separate report on this matter. Until that report is issued, we will provide progress updates in our Quarterly Status Reports.

### **Background**

In the early 1980s the County's former Office of Research and Statistics completed a feasibility and requirements study for implementation of a public safety CAD system for the Fairfax County Police Department, Fire and Rescue Department, and Office of the Sheriff.

The study found that a CAD system would allow near instantaneous verification of call locations, dispatchers to ascertain quickly the nearest available unit to direct to the scene, and dispatching instructions to be sent electronically without voice communication.

Additional benefits would include reduced radio voice traffic, faster response times, increased security for responders by electronic status monitoring, and remote access to various data bases such as the Virginia Crime Information Network.

Based on the study, funding for the CAD system was included in the FY 1984 Approved Fiscal Plan. The project estimate for the total package of radio communications was \$8,735,000, including \$515,000 for the renovation of the Pine Ridge Elementary School which was the site designated as the location of the new CAD equipped public safety communications center; \$4,400,000 estimated for CAD hardware and software; and \$3,820,000 for associated radio communications improvements.

Subsequent to the funding authorization in FY 1984 and based on the feasibility and requirements study, a Request for Proposal was issued in August 1983. A total of 239

firms were contacted and 4 proposals were received. A six person Selection Advisory Committee, which included the Police Chief and Fire Chief, was appointed by the County Executive. An outside communications engineering consulting firm, Sachs-Freeman Associates, was also hired to perform an independent evaluation of each proposal.

The Selection Advisory Committee recommended to the Board of Supervisors that PRC of McLean, Virginia be selected. In March 1984 the Board approved proceeding with contract negotiations with PRC. The original contract amount negotiated for CAD hardware and software was for \$4,569,898.

Although the contract document is no longer available, it appears it was signed around May of 1984 with full implementation and operation scheduled by December of 1985. The installation actually took until 1987 to become fully operational.

PRC, and later its purchaser, Northrop Grumman, has been under contract with the County since the award of the first contract to manage all aspects of the CAD system's technical operation including system integration, data center operations, hardware and software maintenance, and management of all third party support vendors.

In this capacity PRC and Northrop Grumman have been the County's single point of expertise, responsibility, and contractual risk for proper operation, support, maintenance, enhancement, replacement and upgrades to the system.

#### Old CAD System Became Outdated

County documents indicate that the old CAD system had been fine tuned to be reliable and relatively comfortable for most users. However, a big problem with the system that had been installed in the 1985-1986 timeframe was that, by the late 1990's, it couldn't be expanded any further to meet needs for improvements such as in-vehicle reporting and automatic vehicle location.

Documents also indicate that enhancements to the old system based on current technology had become impossible to accomplish. Nearly every piece of network equipment in use was beyond its best case life span, the necessary parts to keep the network up had not been manufactured for several years, and the supply was virtually exhausted.

The PSCC Director, in the 1996-1997 timeframe, visited vendors providing CAD system solutions to assess the functionality of products commercially available. The Director decided that the County should continue with the current contractor. The decision was based in part on the contractor's role as the system integrator and maintenance contractor at the PSCC, their extensive service history with the County, and their willingness to customize their proprietary product to meet County needs.

A new sole source contract was awarded to Litton PRC in November 2000 to resolve the obsolescence issues with the old CAD system. The decision justifying the sole source contract award to Litton PRC was signed on May 22, 2000, by the PSCC Director, and the contract was signed by the Director, Department of Purchasing and Supply Management, on November 16, 2000.

The new CAD system would be operated on a windows-based software system known as Altaris.

**New CAD Altaris System**  
**Had Many Problems**

The new CAD Altaris System, after some delay, became operational in May 2004. Almost immediately there were problems with the system.

Staff said that while the CAD system met basic operating requirements, including emergency call receipt and routing, Police and Fire and Rescue dispatching, and Field Units deployment, there were numerous complaints by end users.

The complaints involved instances where the CAD/Altaris System did not work as designed, had ease of use or navigation concerns, and had periods of severe slowdowns and unanticipated downtime. These issues contributed to the problems the end users had in transitioning to the new system.

Other issues included concerns regarding data integrity, such as missing records and data fields, and the reliability, timing and completeness of data transmissions from CAD to the County Records Management Systems. By June 2004, there were 323 documented problems that had been identified by end users. The number of documented problems eventually grew to about 450.

A series of meetings were held with the contractor in the fall of 2004 to express the County's concerns and seek remedial action to improve vendor and system performance. A letter was sent to the contractor specifically addressing items the County expected to be completed to be in compliance with the contract.

The County also hired a contractor to conduct an independent verification and validation of the CAD/Altaris implementation. The contractor's December 2004 report provided recommendations for the short-term stabilization of Altaris CAD, and, for the long term, the implementation of a new CAD system for the Public Safety and Transportation Operations Center, presently scheduled to "go live" in November 2007.

In line with the recommendations of the independent verification and validation report, the County Executive's Office created an action team to resolve the CAD/Altaris System issues. The Police and Fire Departments assigned senior command staff to manage the

process for identifying and resolving user complaints. Department of Information Technology staff was assigned to work closely with the Police and Fire and Rescue staff.

In addition, the position of Public Safety System Architect was created and filled in the Department of Information Technology to oversee public safety information systems and develop a strategic architecture for public safety technology. The Public Safety System Architect receives direction from the Public Safety Information Technology Governance Board, which is composed of high level representatives of the key stakeholder agencies as well as County senior executives. The Architect is the overall program manager for all the Public Safety agency stakeholders and is the Project Manager for the new CAD replacement project and associated systems development and integration.

Northrop Grumman assigned additional personnel in December 2004 to resolve the problems with the CAD system, with a goal of correcting them by July 1, 2005. By March 2005, there were about 50 problems still to be resolved. As of July 1, 2005, virtually all of the original problems had been resolved at no cost to the County.

The County has created a new Department of Public Safety Communications effective July 1, 2005, and plans to build and open a new Public Safety and Transportation Operations Center by November 2007. The County also intends to issue a Request for Proposal for a new CAD system this year. Lessons learned from PRC and Northrop Grumman contracts will be used in contracting for the new CAD system.

**WORK TO BE PERFORMED**  
**DURING THE NEXT QUARTER**

The issues regarding CAD/Altaris will require additional discussion with agency staff and others, and the review of numerous documents. We will continue our review of CAD system contracts and related problems during the next quarter.