

## IACP TECHNOLOGY CLEARINGHOUSE



### Law Enforcement Technology Program Survey

#### Projects:

- [Public Safety Communications System](#)
  - [Public Safety 2000 - 800 MHz Radio Project](#)
  - [Traffic Stops Data Collection](#)
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**Agency Name:** [Montgomery County Police Department](#)

**Technology Program Name:** Public Safety Communications System

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**Home Page Address:** [www.co.mo.md.us/services/police](http://www.co.mo.md.us/services/police)

**Agency Size:** Total Sworn: 1130; Total Civilian: 420

**Agency Type:** County Police

**Technology Program Status:** Permanent Program

**Mobile Hardware Type and Quantity:** Laptop- 1100 (to be purchased); MDT-47 (to be phased out)

**Printer:** N/A

**How is data transmitted from the Field to the Station?** Wireless (CDPD to be built)

**How is data transmitted from the Station to State and Data Collection Authorities?** Fibernet

**Funding:** The County funded the project through capital improvement funds and through Operating Budget Funds.

**Hardware Manufacturers:** Mobile Computers: PC Mobile and Panasonic CF 28 Radios and RF Modems: Motorola

**Software Manufacturers:** CAD: Northrop Grumman (PRC-PSI) Altaris Mobile Client: Aether, Packet Cluster & Packet Writer

**Important Technology Lessons Learned:** Integration is critical in a program of this size. Get all agencies involved early and establish a senior level owner to help move the political and funding issues.

**Program Narrative Overview:**

Montgomery County went live with the new CAD system and 800 MHz radio system on July 20, 2003. This effort was part of a larger program (Public Safety 2000) that included a new digital trunked 800 MHz radio system, a new Emergency Communications Center facility, new CAD, AVL (GPS in vehicles), Mapping, Field Reporting and new Records Management System. This \$140 million project is a joint project of all public safety agencies using a joint management team. This project began in early 1997 with the selection of a project systems integrator, TRW (now Northrop Grumman Mission Systems). Motorola was selected to provide the 800 MHz radio system and NGMS was the turn key provider for the mobile data system. Key sub contractors were PRC (Altaris) for CAD/AVL/Mapping, Aether for mobile client (Packet Cluster & Packet Writer and the Mobile Data Gateway), L&E for installations. Field Reporting & RMS projects continue and are expected to be operational by fall of 2004.

## **Additional Concerns**

MCPD deployed over 1000 mobile computers. Roll out and training were critical. This was a major change in the way MCPD functioned. We attempted to time installations and training for officers so cars were outfitted, officers attended training and the mobile computers installed at approximately the same time. The plan worked well but required a significant commitment from field units and management of installation and training. Training was broken up to allow for phased deployment of the system and operational functions. Officers had not used mobile computers prior to this project. The first phase installed the mobile computers and trained the officers on use of the computer hardware and the Packet Cluster software for state and national (NCIC) queries. We also gave intense training to 55 officers who served as mentors to assist officers in the use of the hardware and software. Phase 2 was CAD. This required extensive training for ECC personnel and an additional 18 hours of classroom training for all officers. Training was conducted by Technology Division training staff and a cadre of mentors. This training had to be compacted to occur as close to the cutover to the new system as possible so skills could be used before training memory was lost. Phase 3 will be mobile field reporting which will require an additional 2 days classroom training for all officers, Phase 4 will introduce the RMS and require an additional day of training for officers and longer training for administrative and records personnel. One program management lesson concerns the role of system integrator and turn key provider. An integrator serves the customer and is reimbursed for effort supporting the customer. A fixed price turn key contract places the vendor in a role where profit often drives decisions and places them at odds with customer views and requirements. Those roles should not be mixed in the same vendor. It creates possible conflicts of interest. Success requires careful cooperative management from customer and vendor.

[Montgomery County, MD Public Safety Mobile Data System Pilot Project Final Report](#)

[Emerging Technologies In Law Enforcement: GIS and GPS](#)

UPDATED: November 10, 2003

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**Technology Program Name:** Public Safety 2000 - 800 MHz Radio Project

**Contact:** David Linn, Director of Technology

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**Agency Size:** Total Sworn: 1130; Total Civilian: 420

**Agency Type:** County Police

**Technology Program Status:** Permanent Program

**Mobile Hardware Type and Quantity:** 1100 [Motorola A4](#) mobiles and 1200 [Motorola XTS 3000](#) portable radios

**Printer:** N/A

**How is data transmitted from the Field to the Station?** Voice over 800 MHz [Motorola Astro](#) 3.0 digital trunked radio system

**How is data transmitted from the Station to State and Data Collection Authorities?** N/A

**Funding:** The County funded the project through capital improvement funds and through Operating Budget Funds.

**Hardware Manufacturers:** [Motorola](#)

**Software Manufacturers:** [Motorola](#)

**Important Technology Lessons Learned:** Integration is critical in a program of this size. Get all agencies involved early and establish a senior level owner to help move the political and funding issues.

**Program Narrative Overview:** Montgomery County Police Department is developing a

new 800 MHz Trunked Radio System and a Mobile Data System that includes computers in public safety vehicles, a new CAD, Records Management, Automated Vehicle Location, Mapping, plus a new Emergency Communications Center to house the new system. All these projects have been grouped into a coordinate effort called Public Safety 2000.

Detailed requirements definition began in 1997. This is a multi-agency effort. The county selected TRW as a systems integrator for the radio project and a turnkey contractor for the mobile data effort. Motorola was selected as the contractor for the 800 MHz Radio System.

A contract was signed with Motorola in December 1999. The system is expected to be operational in the summer of 2002. Development and implementation is being worked with the mobile data system. The system will include 11 transmission sites covering 525 square miles. Areas along the Potomac River will be augmented with Bi-directional antennas. The system will provide for in building portable radio coverage of the county.

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**Technology Program Name:** Traffic Stops Data Collection

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**Home Page Address:** [www.co.mo.md.us/services/police](http://www.co.mo.md.us/services/police)

**Agency Size:** Total Sworn: 11130; Total Civilian: 420

**Agency Type:** County Police

**Technology Program Status:** Permanent Program

**Mobile Hardware Type and Quantity:** Laptop- 1200 Compaq Aero 1550 Pocket PCs running Traffic Stop

**Printer:** N/A

**How is data transmitted from the Field to the Station?** MCPD LAN/WAN

**How is data transmitted from the Station to State and Data Collection Authorities?** N/A

**Funding:** The County funded the project through Operating Budget Funds.

**Hardware Manufacturers:** [Compaq](#)

**Software Manufacturers:** Mobile Commerce and Computing

**Important Technology Lessons Learned:** Officers adapted to the handheld computer faster and easier than anticipated.

**Program Narrative Overview:** In the spring 2000, Montgomery County Police, as part of an agreement with the Department of Justice, was required to collect data on each traffic stop. Collecting the data on paper would be time consuming and costly. At that time mobile data computers were not installed in MCPD vehicles. A cost benefit analysis determined that the use of handheld computers could save time and money and increase data accuracy. Pocket PCs and the Windows CE operating system were selected because of greater flexibility in developing and working with other applications. The Compaq Aero 1550, Pocket PC, was selected because of lower cost, 16 meg of memory and small size. It also came with a flash port that provided for easy downloading of data over our existing data network. All 1130 sworn personnel were trained and provided with their own Aero 1550. Training was provided in a 3 hour class that covered the agreement with DOJ and the operation of the Aero 1550. The system went operational in September 2000. The system has worked well for 3 years. But the life span of the Aero Pocket PC is about over. MCPD is moving the mobile client software from the Pocket PC to the now installed mobile data computers in vehicles. Both mobile client software and backend data base applications are being upgraded. We anticipate the transition will be complete by October 2003. Officers will retain Pocket PCs but no further maintenance or replacement will be performed.

**Additional Comments:**

Additional training would have helped officer make better use of other PDA functions.