

# Police Department

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LOB #207:

## **NOVARIS**

### **Purpose**

The Northern Virginia Regional Identification System (NOVARIS), an automated fingerprint identification system (AFIS), was created in 1983 for use by the cities of Alexandria, Fairfax, and Falls Church, and the counties of Arlington, Fairfax (including the towns of Herndon and Vienna), Prince William, and later by Loudoun. In 1984, NOVARIS connected with the Metropolitan Police AFIS (DCAFIS), as well as an AFIS shared by Montgomery and Prince George's County Police (RAFIS), allowing all agencies to share arrest and evidence data.

NOVARIS is used to compare evidentiary latent fingerprints and rolled fingerprint impressions taken from unidentified persons to other fingerprint images stored in the database and generate potential matches for final confirmation by an examiner. Before NOVARIS, such efficient searches were practically impossible. While a skilled examiner could manually search approximately 100 fingerprints per hour, NOVARIS can search approximately 1.3 million fingerprints per hour. As of the fall of 2011, NOVARIS examiners made 4,171 identifications since the system became operational.

In FY 2007, system enhancements not only improved fingerprint identification capabilities, but also provided palm print identification and facial recognition capabilities. In late 2007, the first version of Mobile AFIS was implemented, allowing officers to use handheld devices to query the three AFIS systems to identify people in the field. The next generation of Mobile AFIS has since been designed, reducing costs, improving overall system response, and leveraging existing resources available to every officer in the region, such as cruiser laptops and communication systems.

### **Description**

Fairfax County is responsible for the financial management of NOVARIS which is supported by annual contributions from participating jurisdictions. The contributions support system maintenance, equipment, operating supplies, telecommunications, and training, employee salaries are paid separately by each participating jurisdiction. Cost sharing is determined by a formula based on citizen population, police population, and proportion of each participating jurisdiction's equipment usage within the system.

Beginning in 2006, NOVARIS, DCAFIS and RAFIS operating costs such as AFIS equipment, maintenance and training previously supported by local revenue have been funded through a Federal Urban Areas Security Initiative (UASI) grant administered by Fairfax County. Consequently, contributions were greatly reduced and currently support only training and minor operating expenses. Grant monies have funded significant upgrades, equipment and training that would not have been realized through usual and customary fund contributions.

### **Benefits**

Automated Fingerprint Identification System: AFIS allows for rapid search of latent fingerprints from crime scenes against the 1.5 million record databases, which includes two additional AFIS sites, to identify suspects in crimes. The turnaround time for these responses is very rapid and has allowed departments to maintain or reduce their latent examiner staffing even though the population and amount of evidence to be processed has increased.

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Mugshot system: The mug shot system, working in concert with the AFIS LiveScan automated booking process, has provided the ability for the officer, detectives, analysts, and fusion centers to quickly search and review arrest bookings. This system is updated within moments of submission providing a platform for facial recognition with current data. Through the use of facial recognition software, photos or even composite sketches of suspects can be searched against the mug shot database, photos of arrested persons taken at time of arrest, to identify the suspects in a crime. Mug shot, similar to AFIS, consists of four database systems in the region with cross search capabilities allowing users the ability to search the region quickly and efficiently.

Mobile AFIS is a handheld device taken into the field by police and deputies to positively identify subjects they come into contact with on the street. Identification is possible within five seconds if the individual has a previous arrest record in the system.

## Mandates

This Line of Business is not mandated.

## Trends and Challenges

NOVARIS has become a model for other systems in the U.S. regarding the interoperability and dedication to the mission. Given continued federal funding, NOVARIS and the National Capital Region will continue to help push the technology in a productive manor for the benefit of law enforcement.

## Resources

Category	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted
<b>LOB #207: NOVARIS</b>			
<b>FUNDING</b>			
<u>Expenditures:</u>			
Compensation	\$523,660	\$492,602	\$619,082
Operating Expenses	17,444	19,829	15,434
<b>Total Expenditures</b>	<b>\$541,104</b>	<b>\$512,431</b>	<b>\$634,516</b>
General Fund Revenue	\$0	\$0	\$0
Net Cost/(Savings) to General Fund	\$541,104	\$512,431	\$634,516
<b>POSITIONS</b>			
Authorized Positions/Full-Time Equivalents (FTEs)			
<u>Positions:</u>			
Regular	7/7	7/7	7/7
<b>Total Positions</b>	<b>7/7</b>	<b>7/7</b>	<b>7/7</b>

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## Metrics

Metric Indicator	FY 2013 Actual	FY 2014 Actual	FY 2015 Actual	FY 2016 Estimate	FY 2017 Estimate
LiveScans	NA	NA	22,000	25,000	30,000
Fingerprint Comparisons	NA	NA	1,500	1,700	2,000
Mobile AFIS Identification Searches	NA	NA	1,101	2,000	2,500

The Fairfax office anticipates processing approximately 30,000 LiveScan transactions per year with ten respondents per case which requires the examiner to evaluate and compare the arrest fingerprint card with ten latent respondents. Divided among the four examiners in the office, each examiner compares approximately 7,500 LiveScan cases per year with 10 latent fingerprint cases. Recent changes in the Sheriff's Office have added an additional palm print to each LiveScan case adding an additional 10 palm prints to compare with each transaction.

Additional to the review of automated case work, each examiner must evaluate and search latent prints submitted from officers investigating crime scenes. The Fairfax office of NOVARIS receives approximately 130 latent cases per month each requiring evaluation, entry and comparison of search results. Each case can range from minutes to hours and days depending on the amount of evidence and nature of the case submitted by the investigator. Current case priority is based on the severity of the case and if there are suspects.

Recent improvements to the automation of latent entry has contributed to the efficiency of the operation in NOVARIS which has also led to nearly three identifications per day on average while maintaining reasonable control over increasing caseloads.

The use of the Mobile AFIS identification tool has provided near instant ID to suspects at the first point of contact by law enforcement. The device has been used in the NOVARIS region approximately 1,500 times since January 2015 with hits more than 50 percent of the time. Identification from the return search provides the officer with information to make a better decision at the first point of contact.

## Grant Support

**FY 2016 Grant Total Funding:** Federal funding of \$2,000,000 supports the NOVARIS LOB. There are no positions and no Local Cash Match is associated with this grant.

The Urban Area Security Initiative (UASI) grant program is funded by the U.S. Department of Homeland Security through the D.C. Homeland Security and Emergency Management Agency as the State Administrative Agency. The UASI Program assists high-threat, high-density urban areas in efforts to build and sustain the capabilities necessary to prevent, protect against, mitigate, respond to, and recover from acts of terrorism. The UASI program is intended to provide financial assistance to address the unique multi-discipline planning, organization, equipment, training, and exercise needs of high-threat, high-density urban areas, and to assist these areas in building and sustaining capabilities to prevent, protect against, mitigate, respond to, and recover from threats or acts of terrorism using the Whole Community approach. Fairfax County, located within the National Capital Region, is designated as one of the top 10 Tier One areas, which makes it one of the regions in the Country most at risk of suffering a terrorist attack.

Grant funding specifically supports the Police Department NOVARIS section to ensure National Capital Region partners can communicate and share necessary, appropriate law enforcement data in all environments and on a day-to-day basis.