POLICE SATELLITE USE

LAW ENFORCEMENT TAKING FROM THE GOVERNMENT

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September, 2011

COMMAND COLLEGE CLASS 49

The Command College Futures Study Project is a FUTURES study of a particular emerging issue of relevance to law enforcement. Its purpose is NOT to predict the future; rather, to project a variety of possible scenarios useful for strategic planning in anticipation of the emerging landscape facing policing organizations.

This journal article was created using the futures forecasting process of Command College and its outcomes. Defining the future differs from analyzing the past, because it has not yet happened. In this article, methodologies have been used to discern useful alternatives to enhance the success of planners and leaders in their response to a range of possible future environments.

Managing the future means influencing it—creating, constraining and adapting to emerging trends and events in a way that optimizes the opportunities and minimizes the threats of relevance to the profession.

The views and conclusions expressed in the Command College Futures Project and journal article are those of the author, and are not necessarily those of the CA Commission on Peace Officer Standards and Training (POST).

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"Local Police Nab Bank Robbers using Satellites"

Yesterday the Anytown Police Department very quickly and efficiently apprehended two alleged bank robbery suspects shortly after they robbed the First Local Bank. According to Anytown Chief of Police Dave Brown, the Police Department had recently become involved in the Law Enforcement Satellite Network (LESN); a national group that gives local police departments access and control of the photo surveillance satellites currently in orbit.

In yesterday's case, when the report of a robbery call came in, the dispatcher cued up the satellite and was able to send live images of the bank and surrounding area to responding police units and their supervisor. They were also able to monitor the images within the dispatch center. Rather than going to the bank, officers went to the rear of a local grocery store, where they could "see" the suspects changing to another vehicle to flee the area. Two suspects were soon taken into custody without incident.

Chief Brown noted the suspects had been linked to at least four additional bank robberies in the county in recent months. He added "…before we had access to real time satellite images, we would not have closed this case and arrested these suspects so quickly. We are very grateful for this new tool we have gained. Without it, we would not have known where these suspects went, and they would have likely gotten away".

Imagine the story in tomorrow's newspaper, about how local police agencies are using real time and archived satellite imagery to solve criminal cases. Does this sound

like it's just too much space age technology to be true, or ridiculously futuristic and unbelievable? On the surface you may think so, but with the current progress and the advancements in technology it's not so farfetched.

In Sputnik's Footsteps

Satellites have been out in space and in the earth's orbit for more than fifty years. The first satellite successfully launched into orbit was the Soviet Union's "Sputnik", launched in October 1957 (http://www.nasm.si.edu/exhibitions/gal100/sputnik.html). The primary purpose of that first satellite was to record temperatures; it was also used to detect meteors. Since that time, there have been many thousands of satellites launched into the earth's orbit, and there are more than 3000 satellites currently in orbit (http://hypertextbook.com/facts/2004/VadimBlikshteyn.shtml).

Today, satellites are used as telescopes, for taking pictures, mapping, global positioning, television and radio transmissions, and for military uses. Military and government satellites conduct real-time satellite surveillance and observation, especially in theaters of conflict or war. The military tracks vehicles and personnel with satellite imagery, and we have all seen the images on television news shows during time of war or protest. The ability and equipment is there today for this same real-time surveillance for local law enforcement. What does not currently exist is the ability for local law enforcement to access, control, or even request the use of these images or satellites in real time. But how would local law enforcement agencies be allowed to access and view the satellite imagery?

It's All about the Imagery

Satellite imagery is collected via data feed from the satellites controlled or under contract with the government and military. This information is often stored digitally for comparison with previously captured imagery. Imagery captured by commercially owned satellites can be purchased from those companies. This type of use or need is typically for developers, farmers, etc. (http://www.mapmart.com/Products/SatelliteImagery.aspx). It can reasonably be assumed the government controls data on many places of interest to national security, especially within the context of Homeland Security. Certainly the concepts mentioned here might easily conjure up images of movies such as "Enemy of the State" or "The Peacemaker". Both of these movies depicted people and things being actively tracked and watched via government or military satellites.

Imagery is currently used by U.S Customs for drug trafficking monitoring and enforcement, and also by Homeland Security operations to monitor and secure the U.S. borders, so expanding the use beyond actual federal government use is not a foreign concept. For example, the US Customs Service has tactically located satellite monitoring stations in the U.S. that tracks planes and boats entering U.S. waters or territories, primarily from countries know to produce and export illegal drugs (http://www.ehow.com/info_8307197_satellite-uses-homeland-security.html). When the monitoring stations suspect illegal drug trafficking is taking place they can make notifications for the plane or boat to be intercepted. This is the type of satellite imagery we want to consider for use by local law enforcement. Federal agencies and the military, though, would first need to allow the access and control.

Securing Sight Time

The use of satellite imagery could have a profound and significantly positive impact on law enforcement patrol operations. Think of it; the number of satellites currently in orbit allows us to view any specific point on the Earth from at least 9 different satellites now in orbit. That is far different from the manner in which we blindly stumble about in contemporary patrol operations.

At present, the police have to rely on maps or old satellite photos for layout and terrain orientation. If they had real time satellite imagery in their police units and dispatch centers, they could respond more effectively and safely, as well as watch for dangers around the scene and fleeing suspects and vehicles. Considering the ways U.S. Customs and others use real-time data to interdict smuggling, drug crimes and similar acts, one can easily envision a future where local officials can use the same capacity. Although the political aspects of gaining permission to use satellite time might be the most difficult part of turning vision into reality, the mechanics of doing so are actually quite simple.

Individual agencies (or regional consortiums) would be required to purchase and install hardware and software to facilitate use. Once granted permission to request access and use, a necessary first step is to create guidelines and rules for requests. Satellite access software for viewing and tracking is small enough to be installed on the MDB or MDC's already present in most modern day police vehicles. The main hardware and any additional equipment would be installed at the regional or local departments (depending on agreements with different agencies), and would be the relay point to officers in the field. With web based programs being used, the officers in the field can toggle their

screens to different programs they are using, making the satellite feed being sent to their unit one of the screens. In essence, this program would be added on and in addition to what the field units have now, not a replacement or stand alone component.

It would have to be up to the individual agencies or groups of them to take care of the purchasing and installing of hardware and software to facilitate the use. If the government could be convinced to share and allow use of the technology, given precise guideline, rules and regulations, then local agencies could set out to enjoy the benefits, and even add their voice to enhance satellite use and utility in the future.

Assume satellite imagery is in use in the near future in a small southern California town. A violent carjacking takes place and the victim calls 911. With access rights to real-time images, the dispatcher can view the crime as it occurred, and dispatch officers accordingly. If there is no specific image of the crime, the operator can still check the last known direction of the suspect, and try to locate their vehicle. Naturally this would all be dependant on the time of day, weather, accurate information provided by the caller, etc., but the success in finding the suspect can be greatly enhanced. The dispatcher can possibly locate the fleeing vehicle or find it parked somewhere, and then direct responding officers towards it.

An Expert Panel Weighs In

An expert panel convened to discuss the issue felt it would be a worthwhile endeavor. One of the major concerns of the panel was retaining personal privacy in the face of government satellite surveillance. Many felt that too much privacy would or could be infringed upon with this use. Going hand in hand with the privacy issue was the potential for misuse. It was agreed that much oversight and “checks and balances” needed

to be in place to prevent officers from misusing the technology for illegal or improper uses. Various examples of misuses were discussed and it was felt that second only to a lack of funding, misuses would be the biggest thing to cause the public to not support the technology being used by local law enforcement. This would be why the parameters for using the equipment would have to be mapped out and detailed, with frequent audits and checks to ensure against misuse. There were many positive outcomes and results discussed with this panel as well.

Some of the key topics that the panel discussed were the clearance rates of crimes, and the increased safety to civilians and officers with technology like this in place. Being able to access these types of satellites would be of a huge benefit to law enforcement in the area of officer safety. The increase in officer safety for an officer being able to see the area he or she is driving in to in real time, from an overhead "birds eye view", would be a very visual and measureable factor in saving officer injuries or deaths. For instance, in 2009, 48 law enforcement officers were killed in the line of duty. Of those deaths, 15 were attributed to ambush situations (http://www.fbi.gov/news/stories/2010/october/LEOKA-report/leoka_report). While it would be impossible to be totally accurate without the satellite use in place, it would only seem logical that this number could be greatly reduced or eradicated by an officer or dispatcher being able to see the area that is being responded to before and as the officer(s) arrive. Any experienced police officer would no doubt verify this belief. In the law enforcement community it would be one of the greatest desires of having this technology in place; so that officer ambushes would almost be non-existent.

Another area where a reduction in death and injury could be made is with vehicle pursuits. Each year it is estimated that an average of 350 people are killed as the result of a police vehicle pursuit; nearly one a day (http://www.realpolice.net/articles/police-pursuits/high-speed-police-pursuits-dangers-dynamics-and-risk-reduction.html). How many pursuits would be cancelled by supervisors if a satellite could track and follow the suspect vehicle and suspect(s), in real time, and watch where it goes so that officers can coordinate the apprehension of the suspect(s)? Would there be a need to chase vehicles on the streets and highways, further endangering innocent lives as well as the lives of officers? This question cannot be answered with an unequivocal yes or no, due to all the factors that weigh in on pursuits, but this technology would at least allow another method or tool for the pursuing or observing.

Legalities of Use

While it is not possible to accurately assume what the military's thoughts or stance on this issue is, it is important to point out that some may claim "posse comitatus act" violations if this idea was allowed to become a reality. The Posse Comitatus Act is United States Federal Law (18 U.S.C. § 1385); passed in 1878. Under this statute America's military is largely prohibited from acting as a domestic police force. The law has further been defined to preclude, for the most part, the use of equipment belonging to the U.S. Military for domestic law enforcement (seizure or arrest). Since September 11, 2001, though, there have been slight revisions to allow the military to help with Homeland Security and the investigation of acts of terrorism. The use of satellites operated exclusively by the military would possibly need Congressional approval for

local law enforcement to access them for civilian use. This is an area requiring further research; and certainly, significant work.

Conclusion

There are many factors and details yet to be worked out with this suggested use of satellites, but a person with even limited law enforcement experience would no doubt be able to see the benefits of having this technology. The most apparent and obvious obstacle to overcome would be the financial burden for agencies. In today's current economy and with struggling cities and counties throughout the state, huge cuts have been made in law enforcement budgets. Adding to that burden with new purchases and programs at any time is a tough battle, but especially today. However, it is something that can save money in resources required once it is in place, and should be something the law enforcement community starts planning for. The idea has been depicted in several movies and books over the years, primarily in relation to the military type stories. The number of lives that can be saved, both of law enforcement personnel and civilians, by being able to view locations and scenes in real time can be incredible.

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