THE CITY OF SAN DIEGO

REPORT TO THE CITY COUNCIL

DATE ISSUED: March 25, 2008   REPORT NO. 08-045

ATTENTION: Public Safety and Neighborhood Services Committee
                   Agenda of April 2, 2008

SUBJECT: Informational Report from the San Diego Police Department
                   Regarding New Technology

SUMMARY

THIS IS AN INFORMATION ITEM ONLY. NO ACTION IS REQUIRED ON THE
PART OF THE COMMITTEE OR THE CITY COUNCIL.

BACKGROUND

The primary purpose of technological development in law enforcement is to serve as a "force
multiplier." That is, to optimize service and efficiency, while minimizing personnel
requirements, through more informed, organized, accurate, timely and focused law enforcement.
Concurrently, technology must maximize the safety of officers and citizens, and improve our
ability to prevent, investigate, solve, charge and prosecute crime.

The San Diego Police Department welcomes opportunities to evaluate and apply promising
technological advances and products. Almost all of our technological development has been
made possible through State and federal grant funds. SDPD also participates in technological
development projects hosted by regional, State and federal law enforcement agencies.

While there is significant overlap, for the purposes of this report the general concept of
"technology" can be divided into two broad categories: automation, which includes computers
and software, and the resultant enhancements in areas as data sharing, communications,
geographic information systems, and link analysis and equipment and materials, which include
items such as audio and video devices, less lethal weaponry, and specialized vehicles. This report
highlights examples of some important new technologies that the men and women of the San
Diego Police Department are currently using or testing.

I. AUTOMATION, COMPUTERS AND SOFTWARE:

A. MOBILE COMPUTER TERMINALS (MCTs): Sometimes referred to as a "laptop,"
these ruggedized computers are docked into the patrol car for use during the entire shift. The

value of MCTs is well established as a crime-fighting tool that is as critical to every SDPD officer as his/her badge and firearm. The MCT is used for much more than writing crime and arrest reports. It serves as the primary communications link with the Computer Aided Dispatch (CAD) system and Communications staff to dispatch officers to calls for service; as well as linking to the Department's field reporting and records management systems and databases that are the source of law enforcement information.

The newest development is high-speed wireless technology that allows transmission of substantial information to patrol officers that previously was only available on desktop computers. Examples include criminal history data, driver's license and mugshot photos, criminal justice resources, and specialized software. It assists the officer in positive identification of deceptive or incapacitated subjects, and provides instant access to "wants and warrants," criminal history, and regional, State and federal databases. Full deployment is expected by early 2009. By making comprehensive subject identity and history available to field officers, personal safety is vastly improved. The continued use and enhancement of the MCTs is critical in maintaining the safety of our citizens.

B. AUTOMATIC VEHICLE LOCATOR (AVL): AVL software uses Global Positioning System (GPS) data to track the location of Police Department vehicles and make the information available on the dispatch terminals in the SDPD Communications Division. The data allows dispatchers to view the location of the incidents on maps, as well as the officers' location and movements. It can be used to determine which vehicle can get to a call most expeditiously, and to rapidly locate the vehicle of an officer who needs assistance. SDPD is currently testing AVL software on its CAD system. Full deployment is expected by mid summer 2008.

C. LICENSE PLATE READERS (LPRs): These vehicle-mounted cameras can track, read and process every license plate within their range—on vehicles that are parked, moving, behind, ahead, passing or approaching the police unit—totaling over 5,000 plates per day. Stolen vehicles, or those associated with outstanding citations, crimes or warrants are automatically reported. This technology is portable and can be shared by other regional agencies, as needed. SDPD currently has two LPRs, with two cameras each, and hopes to increase the number. The first stolen recovered vehicle occurred on 10/25/06 and the most recent was 3/14/08. During that time period, 128 stolen vehicles with a total value of $805,575 were recovered using the LPRs.

D. FINGERPRINT READERS: Fingerprint readers are small, portable devices that allow patrol officers to take suspects' fingerprints in the field, and, subsequently, use the MCT to transmit the prints remotely into the automated fingerprint system. This allows technicians to begin immediate procedures to identify a subject, and saves the officer from having to transport the subject to Headquarters for fingerprinting. Ten of these devices will be piloted beginning early summer 2008. If successful, additional equipment will be sought for other officers.

E. E-WATCH: This innovative system allows citizens to sign up for Internet notification of crime information within the City of San Diego. Users may request crime data for a given radius of up to three addresses per email address. For example, a user may request to be notified of all crimes occurring within a one-mile radius of their home, business, and child's school. Users can also prompt E-Watch to display crimes over a given period of time, i.e., burglaries during the past six months. This allows residents to participate in crime prevention activities within their communities. E-Watch has been operational for three years. Currently, efforts are underway to make the program available region-wide.

F. CRIME MAPPING: Using Geographic Information Systems (GIS), SDPD crime analysts study crime patterns to help officers target specific areas and crime types, and to build time of day and day of week predictive models in series crimes. The system also allows analysts to instantaneously access local and regional data, providing the opportunity for more in-depth analysis. Efforts are underway to provide mapping capabilities to patrol officers and investigators to help visualize crime problems. It should be completed by December 2008.

G. LINK ANALYSIS: Link analysis software permits law enforcement staff to identify, diagram and trace connections between suspects, victims, vehicles, crimes, locations *modus operandi*, gang affiliations, business connections, and other variables. This ability is critical in identifying affiliations and, ultimately, in solving crimes and apprehending criminals, particularly those who may be "behind the scenes" in directing street level criminals. It also serves as a very valuable resource in identifying criminal enterprises and repeat or prolific offenders. Link analysis is a powerful tool, now being placed into use by SDPD's crime analysts to provide information for prevention, investigation and prosecution of crime. The software has been installed at SDPD; training and full implementation should be complete by early fall 2008.

II. EQUIPMENT AND MATERIALS:

A. NEW COMMAND VANS: SDPD has acquired and outfitted three new vans using State and federal grant funds:

1) A 24' command vehicle with Internet/intranet capabilities, as well as MCT and Regional Communication Systems (RCS) interoperable radio communications systems. This van was delivered one week before the October 2007 wildfires and was immediately put into operation as the command center for the Northern Command in Rancho Penasquitos.

2) A 41' command vehicle with a 40' camera mast and PTZ color and low light functioning camera, microwave downlink capability for 3Cs compatibility, a 30' light tower, seven computer work stations with Internet, intranet and Wi-Fi capabilities, and land line and cellular communications to supplement the RCS system. This vehicle will be used for major incidents and command situations such as the upcoming U.S. Open at Torrey Pines.

3) An Emergency Negotiations Team (ENT) command vehicle (due in May 2008) will be equipped with six computer work stations, land line and cellular communications, and RCS interoperable radio communications systems.

B. CELLULAR PHONES—HANDS FREE OPERATION: Major grants have provided approximately 750 cellular and PDA phones to be issued to Department members, most of whom have on-call responsibilities. The phones provided a redundant communication system and were vital during the wildfires when detectives and other personnel with access to radios, were used in the field.

Effective July 1, 2008, California will permit motorists driving on public roadways to use only hands-free communication devices. Although there are some exceptions for law enforcement, the Department is testing four wireless types for our officers: two are worn on the ear; the third is an external speaker for use in a vehicle and the fourth operates through the car radio speakers.

C. AUDIO/VIDEO MICROPHONE (VIDMIC): In February 2008, the Department began testing these devices, which can replace the extended wire microphone used by officers with portable radios. Officers can record two hours of audio and video and download it to a computer for later use. VIDMICs can be used during traffic stops, citizen complaints, or any situation where capturing audio or video footage is desirable. No VIDMICs have been purchased at this time.

D. NIGHT VISION EQUIPMENT: Grant funds have purchased nearly 50 "Generation 3" night vision monoculars. These enable officers to view objects and person in low light conditions. ABLE helicopters are equipped with Forward Looking Infrared (FLIR) devices. By using a laser pointer with FLIR, ABLE pilots can detect objects or persons on the ground and view them with the night vision monocular. The monoculars are also issued to canine officers, field lieutenants, and all patrol commands.

Respectfully submitted,

William M. Lansdowne
Chief of Police

Jill Olen
Deputy Chief Operating Officer
Public Safety/Homeland Security