Less emphasis on the holster[1], more emphasis on the head:

The evolution of policing in the information age

Compiled from information provided by AFP staff and external agencies
by Kate Levings, Communications Officer, Projects Retain/Disclosure.

The farming community in Pastocalle, Ecuador, located 3000 metres high in the Andes, found itself directly in the path of crop eating army ants. Local agricultural authorities were called in, but the ants remained unstoppable. The community had previously pooled funds to buy a single computer with Internet access, and a call was sent out. Within days, a community in Peru suggested an organic material that is easily found in the Andes, and spreading it on the fields proved an effective deterrent to the ants. (www.un.org)

It took radio broadcasters 38 years to reach an audience of 50 million, television 13 years, and the Internet just four. When we talk about the Internet, we often overlook the significance of witnessing its development: it is, after all, the fastest growing instrument of communication in the history of civilisation – that is no mean feat.

The Technological Environment

The rapidly-changing nature of technology has a dual impact on the modern policing environment: on one hand it presents new challenges as criminals use new technology to gain new abilities – new means of committing old crimes, as well as new crimes to commit; yet on the other hand, law enforcement agencies have new means of tracking and fighting crime too. So, given the tools are available to police and criminals alike, the challenge for law enforcement is to remain one step ahead.

Today's era of constant change creates an environment in which adaptability is the key to success. The importance of continually bettering our technological know-how was perhaps best précised by Charles Reith in his 1952 report *The Blind Eye of History*: "More communities have perished by their inability to enforce laws than have been destroyed by nature or hostile aggression. In the history of communities, absence or weakness of effective law enforcement machinery can be seen to be, very frequently, the true cause of failure in battle."

A little more recently in 1982 (although well before the physical world collided with the e-world), English scientist Sir Ieuan Maddock said: "To cherish traditions, old buildings, ancient cultures and graceful lifestyles is a worthy thing – but in the world of technology, to cling to outmoded methods of manufacture, old product lines, old markets or old attitudes among management and workers, is a prescription for suicide" (*New Scientist*, 1982).

This sentiment is shared by the AFP, agrees Commissioner Mick Keelty.

"In today's environment of constant change and increasing complexity, to stand still technologically is to fall behind. As a law enforcement organisation, we need to be on the constant look-out for new ways of tackling crime. New opportunities are being created each and every day, and it is our responsibility to ensure these emerging technologies are used to our advantage, not to our detriment".

The focus on its e-direction has increased steadily for the AFP over the past few years:

Fingerprint technology was one that quickly adapted from old 'ink pad 'technology to digital processes.

Forensic science has embraced new methods of investigation offered by emerging technology.

- During the 1990s, the AFP recognised the impact new technologies and their accelerating globalisation and increasing sophistication were having on human interaction across the globe. March 1997 *Platypus* noted that the consequences of greater connectivity between all the world's different peoples and customs meant that the maintenance of law was more vital now than ever before to the security and well-being of human existence.
- The March 1998 edition of Platypus observed that, "in the twilight years of the 20th century, the dust and din from the information revolution has settled sufficiently to reveal a broad new frontier open for exploration and exploitation[2]".
- The 2000 Commissioners' Conference in Canberra was held around the theme *Crime @ The Speed of Thought*, and reflected the importance law enforcement organisations from all Australasian jurisdictions placed on these emerging areas.
- At the Prime Minister's Science, Engineering and Innovation Council meeting in mid-2001, Justice and Customs Minister Senator Chris Ellison announced that a revised Model Criminal Code would recognise that criminal law must continue to evolve if it is to adequately address new developments in technology. He highlighted that many computer offences, although only a few years old, are already outdated. Changes were also made in 2001 in regards to legislation, with new federal cybercrime laws passed in late-2001 set to help address the impact on Australia of the $3 trillion worldwide cybercrime markets.

The AFP's Science and Technology Environment Scan, released in 2001, highlights that science and technology can pose both opportunities and threats for law enforcement capabilities. It outlines key emerging areas, stating that biotechnology is

predicted to be the emergent technology of the near future – a claim which is supported by a report released by the US CIA in 2000, *Global Trends 2015* (http://www.cia.gov/cia/publications/globaltrends2015/index.html).

The CIA report states that the global impact of biotechnology is expected to be similar to that of the industrial revolution, and that the biotechnology 'revolution' will help in combating disease, increasing food production, reducing pollution, and enhancing the quality of life. The most significant developments in this arena were highlighted as genomic profiling, biomedical engineering, therapy and drug developments, genetic modification, and DNA identification.

Developments of specific interest to law enforcement identified in the scan were proof and protection of identity and authenticity; aids for forensic and crime detection; and personal and property security. Genetics, biometrics, forensic IT, materials technology and data fusion and mining are some particularly relevant technologies.

The Australian Centre for Policing Research has also identified a range of technologies which it expects to impact on law enforcement: nanotechnology[3], cryptography[4], smart cards and e-cash as value stores, biometrics[5], and security systems for the physical and e-world.

The AFP's science and technology capability is dependent upon factors such as funding, legislation, technical skills, relationships, partnerships and resource sharing policies and strategies.

The impact of science and technology on the organisation, and therefore on the wider public, is significant. Firstly, it can create more opportunity for crime by:

- providing easier access to systems, premises, goods and information;
- removing geographical obstacles to crime;
- increasing the scale of potential rewards; and
- increasing anonymity in committing crime or consuming its products.

Having said that, science and technology can also help reduce crime:

- indirectly, by being universally available across society, thus strengthening communities and reducing social exclusion;
- by designing products and services in a way which reduces opportunities for theft and criminal application;
- through its application to crime problems and increasing security of people and property; and
- by increasing global communication.

Trends in science and technology are expected to impact directly or indirectly on all of the AFP's capability sets – technology, people, economic, management and organisational culture. In particular, many of the trends and implications of IT are connected to the extent and nature of e-crime.

"Over the years IT has become an integral part of AFP operations and is no longer viewed simply as a support system but as an important operational tool used to 'fight crime together and win' " says newly appointed Director IT, John Ryles.

"As an organisation, the AFP has actively embraced technology to help meet both old and new challenges in the field of law enforcement. So complete has been the take-up of technology within the organisation that IT has often been described as the 'silent enabler' and people only realise how much they rely on it, when, for whatever reason, it is not there."

Criminal business activities often include a mix of dealing in narcotics ; people smuggling; trafficking in women and children; smuggling toxic materials, hazardous wastes, illicit arms, military technologies, and other contraband.

The crime environment

The AFP's environment report says that the next few years can expect to see transnational criminal organisations continue to exploit technology, including global information, financial and transportation networks:

"Major criminal organisations will expand their scale and scope of activities and possibly, their interaction with each other. Their business activities will include narcotics trafficking; people smuggling; trafficking in women and children; smuggling toxic materials, hazardous wastes, illicit arms, military technologies, and other contraband; and financial fraud."

The report also highlights that future criminal business needs to be considered from the perspective of what will have value.

"Physical property will remain attractive, however, new or growing areas of value will include electronic services, knowledge and information, and identi-

ty. Heroin, e-crime, cocaine, amphetamines and people smuggling are likely to remain priority issues for the AFP. Environmental crime may become more significant for the AFP in the longer term."

Managing technology

The AFP's Science and Technology Steering Committee and its two advisory groups (the Science and Technology Advisory Group [STAG] and the Information Technology Group [ITAG]) were established in late 2000 with a view to tackling some of the complexities which the modern environment presents, as well as to predict upcoming areas of interest to the organisation. Further, the role of the STSC is to identify potential organisational objectives in science and technology and to oversee the progress of the AFP towards those objectives. The STSC also considers and approves business cases for major (more than $100,000) science and technology capital projects.

A recent STSC brainstorming session found key areas of importance to include ensuring the AFP's scientific and technological capabilities are appropriate to meet the demands of its operating environment; securing resources to develop, maintain and replace scientific equipment; and researching science and technology innovations. The committee also highlighted the need to recognise that the AFP cannot be an innovator of science and technology in every instance, and as such it is necessary for the organisation to constantly monitor new advancements and trends in technology.

The collection of crime scene data has been enhance by the development of mobile forensic technology

For further information on the role of the Science and Technology Steering Committee, contact the committee at STSC@afp.gov.au.

Science and Technology, Today and Tomorrow

As the public becomes increasingly reliant on communications technology, new challenges are faced by the organisation in being able to intercept communications, under warrant, from that technology. But at the same time, technology presents investigators with increased opportunities to locate and detect crime.

The rise in the prevalence of technology means the AFP needs to continually improve and update its own skill base while also entering into strategic relationships with new technology partners.

The AFP Science and Technology Strategic Plan 2001–2004 outlines a number of initiatives on the organisation's horizon. It acknowledges that, in order to combat criminal activity effectively, it is necessary for the AFP to continually scan and assess the changing scientific, technological and criminal environment.

In coming years the organisation can expect to see an impact on business resulting from an expansion of capabilities with new communications-related equipment. The trend of acquiring smart information to reduce the need for operator presence will also continue. The organisation's forensic capabilities will also continue to be enhanced, particularly through advances in our capacity to respond to crime scenes with 'in the field' analysis.

Aids for crime detection, investigation management and forensic analysis will be another area of development in the near future. The use of DNA has been a major leap in capability for law enforcement, and will be further assisted by 'lab on a chip' technology which is expected to reduce processing times and improve detection at crime scenes. Information technology will impact on all aspects of the investigation process, from acquisition of intelligence and evidence through storage, retrieval, formatting and presentation in court.

Personal and property security are expected to be remodelled in coming years: relevant developments might include sensor technologies, wearable or implanted technologies and intelligent alarms. The advent of short range radio links such as *Bluetooth* for home and personal use will provide new avenues for people to access information and property.

Further areas of development within the AFP

which are currently underway or planned for the near future are to include:

Project Tripura/Serrate

With a view to curbing transnational crime, the AFP and Customs established Project Tripura in 2001 to develop an effective enforcement response to the exploitation of vulnerabilities in international passenger and cargo at Australia's borders.

The project developed following intelligence assessments by Customs on internal conspiracies at airports, and built on the model developed at Schipol Airport and work undertaken at a number of Australian Airports.

The original principal goal of the project was to identify and reduce the opportunities for organised crime, particularly those risks posed by industry employees, to exploit vulnerabilities in the air border environment.

Project Serrate is an Intelligence Partnership Agreement between Customs/AFP in Victoria which has contributed significantly to the development of the national 'Tripura' strategy. A number of other joint projects such as 'Brodies' in NSW have also made significant contributions to this national joint strategy.

In late 2001, the STSC approved full PROMIS access to a limited number of ACS officers at Melbourne Airport as part of the project. Work is continuing towards delivery of full read-and-write access to PROMIS by the Customs officers, who have already received appropriate training.

The project is to use Entity Discovery in PROMIS to screen international flights for the identification of high-risk persons who are not currently on PACE Alert. As such, an AFP/Customs MOU has been put in place to detail use and to address issues in relation to PROMIS, taking IT security issues into account. The joint PROMIS enhancements as part of the project are set to revolutionise the way federal law enforcement officers screen passengers departing Melbourne Airport. By utilising the Entity Discovery tool within the PROMIS database, it is now possible to compare the name and birth details, obtained from the Customs movement database ASPRA, with holdings within PROMIS. This facilitates the screening of a large number of travellers in a relatively short time frame.

This is expected to lead to increased detections of suspect persons, arrests and seizures, with initial testing of the system proving promising in terms of accuracy rates. In future, the principal could be further applied to incoming international passengers. Viability of extending the PROMIS enhancements in the future to incorporate searches of CrimTrac and other databases is being examined for other uses. Furthermore, the initial trial data produced has suggested that continuation of this form of outbound screening could extend to other airports. A trial of real time screening of inward passengers may also be looked into, as it is believed various software may be available to assist with this concept. This may lead to a time-efficient automated system that may help guide Customs officers in their selection of suitable targets for scrutiny.

Enhancements to current systems are set to revolutionise the way federal authorotoes screen passenger identities. Customs photo

Electronic Briefs of Evidence

Project Disclosure, the AFP's electronic brief preparation and presentation project, aims to support and assist the organisation's greatest asset: its people. The development of e-briefs aims to make information from investigations easily accessible to all members. In doing so, the process of compiling briefs of evidence for prosecution bodies is also to become more efficient, so that the prosecution has the best possible chance of achieving its goals.

Project Manager Federal Agent Nick McTaggart says that at a time of change for the organisation, it is critical that an efficient system is in place for ensuring outcomes are best achieved. "From an outcomes point of view, it is important for the organisation to remain focused on what it is trying to achieve when completing a brief of evidence," he said. "Ever-increasing complexity, the advent of new legislation and the need to provide a capacity to measure performance at every step are dictating the need to provide investigators with a new set of integrated tools to help them compile their brief of evidence."

Project Retain

The first stage of Project Retain, which is centred on remodelling the Property Module in PROMIS, is to be completed mid-year, resulting in improvements in usability, reliability, performance requirements, and security.

In addition, a Request for Tender (RFT) has

recently been circulated as part of the project. The RFT seeks potential tenderers to provide a pilot program to establish the viability of creating a comprehensive multimedia computer-aided training set to assist in the training of staff and the further development of existing corporate systems.

Training Initiative: PROMIS online training package

The pilot program is to be conducted over six months, and will involve 25 AFP developers, from ACT, Sydney, Melbourne, Perth and Brisbane.

Desired Outcomes of Training Initiative

The training program aims to identify inconsistencies in data input and work practice, while also ensuring adaptability to current AFP systems and practices. It is also hoped that the process of building new training modules will identify redundant practices in PROMIS.

Staffing

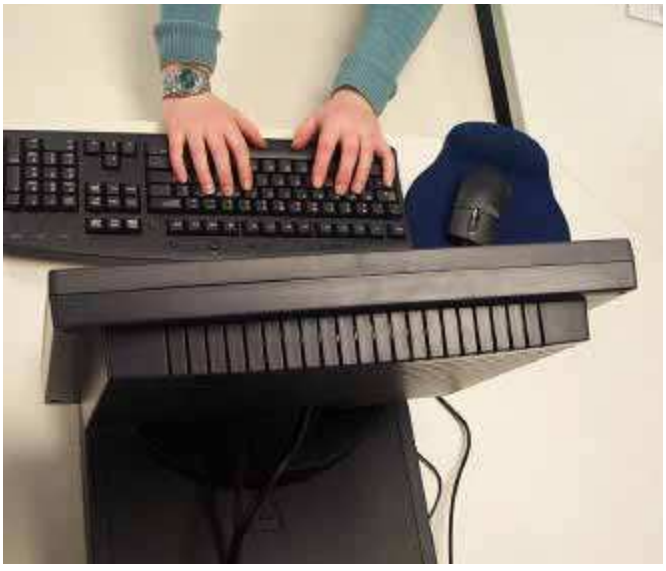
There will be 25 staff involved in the pilot program, with five people each from Melbourne, Sydney, Brisbane, Perth and ACT.

Participants will be selected who have a reasonable amount of operational experience as well as a good understanding of operational business. A specific PROMIS module will be assigned to each person participating in the program, and they will be tasked with building a training package for that module which will be easily used by others. Each module will take around 10 hours to build.

Building the training package will also involve:

- researching policy
- researching reporting outcomes
- identifying redundant fields within the module
- identifying best practice regarding inputting information into the module

Once the module has been built, it will be appraised by a pilot participant from a different region.



Changes to the AFP's desktop PCs include a flat panel monitor with its reduced requirement for desk space, and the Windows XP operating system with support for USB and multimedia.

IT Projects

A number of IT projects currently being undertaken are set to provide improved services to AFPNET users. These projects include improved dial-in access, the Desktop Replacement Project, faxing from the desktop, and image storage and management.

Improved Dial-in Access – OPI Trust

The AFP has entered into a contract with Optus to provide a secure, fully managed dial-in service to AFPNET. The new service provides a number of improvements over the current proprietary RANData modems, including:

- Smart card access, allowing disabling of individual cards should they be lost or stolen.
- Increased security through certificate-based smart cards and individual PINs.
- Increased access speed through use of 56Kbps modems.
- Use of non-proprietary standard modems including notebook built-in modems.
- Use of standard GSM mobile phones allowing access speeds of 9600bps.
- Reduction of STD call costs with the expansion of dial-in access points including all capital cities and other Optus centres (e.g. Darwin, Cairns, Townsville, Gold Coast, Newcastle Wagga Wagga, etc)
- Reduced cryptographic key management requirements.
- Reduced costs of emergency cryptographic key changes.

Access to AFPNET via mobile phone will be particularly useful to teams operating from vehicles or where fixed phone lines are not available. Although standard mobile phone (GSM) speed is restricted to 9600bps, it still provides a useable service to login and check e-mails, make short PROMIS entries, and transfer documents and images from notebooks. IT has trialed GPRS phones, which although provide faster speeds, has proved to be 'bursty' in nature and not suitable for live application interaction such as PROMIS. IT will continue to trial GPRS for applications such as batched e-mail and image transfer.

Desktop Replacement Project

The Desktop Replacement Project, scheduled for commencement December 2002, will involve the replacement of approximately 3000 desktop and 700 notebook computers with the latest generation of equipment.

Changes to the desktop PC include a flat panel monitor with its reduced requirement for desk space, and the Windows XP operating system with support for USB and multimedia. Notebook improvements also include integrated modem and network connectors (no more untidy, broken, or lost connecting tails).

An additional project preceding the Desktop Replacement Project is Project eXPress, which is investigating the replacement of the current network operating system, NetWare, with Microsoft's Active Directory. This will provide the AFP with a path to reduce the current number of passwords required by users of multiple systems.

Faxing from the Desktop

IT has tested, and will soon implement a facility, which will allow AFPNET users to send a fax from their PC. The system involves the installation of a special fax card into Lexmark Optra T printers. Sending a fax becomes as easy as sending a document to a printer. To ensure the security of AFPNET, only outgoing faxes will be implemented.

Image Management

The AFP's Image Management Working Group (IMWG) has identified a three-phase solution to meet the organisation's image management requirements:

- Burn all images to CD for storage and evidential purposes
- Purchase image management software and new servers
- Use PROMIS for all AFP digital image needs, including evidence management.

It is not expected that PROMIS will be available in this capacity for some years, the second phase of the above strategy is to be implemented by LAN Support mid-year. This will involve the installation of large capacity servers to each state headquarters, image management software on the LAN, and workstations fitted with memory card readers and CD writers. Members of the Image Management Working Group are currently developing policies and procedures for use.

Video Conferencing

ACT Policing has recently seen the introduction of video conferencing which is hoped to assist with information sharing between patrols. The four ACT stations – Belconnen, City, Woden and Tuggeranong, as well as the Winchester Centre, were equipped with the technology early this year, and the video link is proving successful for daily musters and conferences. Communication between stations has improved, allowing each area up-to-date information about trends and other regional matters of interest. Superintendent of North District, Brian

Hepworth, highlighted the impact the conferencing system can have on communication.

"The executive can now talk to all members on duty immediately about important matters using the video conferencing system. One of the positive aspects of the system is that it provides for immediate visual information to be shared between the stations such as a face-fit of an offender which can be relayed from one station to another instantaneously.

"Members have been receptive to the use of the video link system and they can see the benefits of virtual conferencing, with the system providing great time saving ability," he said.

South Pacific Network

As part of the Interpol Regional Modernisation Program within the South Pacific Region, the AFP has facilitated secure law enforcement connections within the South Pacific region. The program, sparked by a 1999 AFP–Interpol MOU relating to providing IT services, opened up a unique opportunity for the involvement of all law enforcement agencies in the South Pacific Region in a common law enforcement network.

The initial network trial was successfully carried out it in Suva, Fiji in December 1999, followed by network installations in American Samoa, Papua New Guinea, Tonga, Marshall Islands, Nauru and New Zealand. All countries can now communicate with all other connected Interpol NCBs.

Some early connection problems between the Marshall Islands and the AFP mail server in the ACT were overcome with secure internet communications. This method proved so successful that the AFP has now migrated existing systems in American Samoa, Fiji, Tonga, PNG and New Zealand to the secure Internet technology. The opportunity means low-cost, secure communications between law enforcement agencies, requiring only a dedicated PC, a modem and dial-up access to a local ISP with a valid internet account.

Following the success of the Interpol project, the LECP approved funding to extend the project to non-Interpol countries in the South Pacific. As such, Solomon Islands and the Fijian Commissioner's office have already been brought on line. By the end of this year, it is hoped that the remaining regional countries will be connected.

AFP Project Manager Guptila De Silva says the goal of providing secure communications to more than 10 countries by year-end is ambitious yet realistic. "Although not technically complex, the project is very difficult logistically, particularly when trying to communicate with different working cultures on the islands," he said. "Facilitating secure information sharing across the entire South Pacific has not been possible in the past. But this project will mean the countries of the South Pacific can 'talk', which is a huge boost to law enforcement in the region".

Investigations Management Review

New investigation management strategies are currently under development to improve investigators' ability to digest, monitor, review and recall relevant aspects of an investigation – to better manage the information relevant to an investigation.

The Investigations Management Review team, which has representatives from every AFP geographical area[6], is developing strategies which encourage a systemic approach to recording the investigative process, particularly investigations of a protracted nature. The strategies, some of which have already been implemented for use by new recruits and which are being gradually put into practice by investigators, incorporate the Management of Serious Crime (MOSC) methodologies as well as utilising current PROMIS enhancements, through the use of 'folders'. The primary focus being gathering evidence for any subsequent prosecution or court action, they also establish a set of investigative tools in the wider context to assist in intelligence projects, proceeds of crime/financial investigations and general statistical information.

The orderly recording process allows investigative stages or an entire investigation to be reviewed. They adhere to the principles of investigations planning and management by systemically:

- setting objectives for quality, time and cost;
- developing an overall visual investigations plan;
- recording milestones/critical decisions;
- showing the chain of investigative inquiry;
- ensuring investigator accountability; and
- establishing a clear process that identifies if all lines of inquiry have been pursued.

The investigative process

Planning is a vital stage of any investigation. PROMIS enhancements are hoped to meet both management and investigator needs, through the introduction of the Strategic Criminal Assessment Report (SCAR). It is envisaged that the SCAR will be accessed through the designated PROMIS tab and consists of a sequence of prompting phases requiring investigators to consider a range of variables and possible contingencies associated with the investigation. Much of this information will automatically be drawn from the PROMIS database, meaning less repetition of data input. The prompting categories incorporate the AFP's risk management principles. The SCAR also provides the process of computer-generated attachments in chronological order, including Situation Reports and any Critical Decision Reports. This serves as a managerial reporting means at any phase of an investigation, and risk assessment requirements are continually monitored.

Information recording methods have previously involved use of a 'log', which was somewhat restrictive and cumbersome to review. To address this issue, PROMIS has been enhanced with the introduction of folders, which allow investigators to view the log in a tree-tier style. Building on this concept is the planned initiation of a 'visualisation diagram mode', which will further assist in relation to investigations planning, monitoring and management.

REVOLUTION

"What we know about this revolution is exciting. Advances in science and technology will generate dramatic breakthroughs in agriculture and health and in leap-frog applications, such as universal wireless cellular communications, which already are networking developing countries that never had land-lines.

"What we do not know about the S&T revolution, however, is staggering.

"We do not know to what extent technology will benefit, or further disadvantage, disaffected national populations, alienated ethnic and religious groups, or the less developed countries. We do not know to what degree lateral or 'side-wise' technology will increase the threat from low technology countries and groups. One certainty is that progression will not be linear. Another is that as future technologies emerge, people will lack full awareness of their wider economic, environmental, cultural, legal, and moral impact-or the continuing potential for research and development."

http://www.cia.gov/cia/publications/globaltrends2015/index.html# link4

CrimTrac

CrimTrac, the Federal Government's $50 million law enforcement initiative, is developing IT systems to provide an Australia-wide, integrated view of policing information. A new National Automated Fingerprint Identification System was implemented in 2001, and uses digital and laser technology to scan fingerprints, and for the first time palm-prints, into a searchable national database. A national DNA system was also implemented in 2001, and gives Australian police access to latest advances in forensic science. The database will hold digital profiles of DNA samples collected from convicted criminals and suspects that will be able to be matched against crime scene evidence, such as saliva, skin, hair or semen.

Currently under development is a new National Child Sex Offender, and the National Policing Information System – a cooperative venture between Commonwealth and State police services and is to facilitate the rapid exchange of policing information between jurisdictions.

Minister for Justice and Customs, Senator Chris Ellison, said that the new systems would provide Australian police in regional and city centres, with state-of-the-art information and investigation tools needed to combat modern crime.

"Importantly, as well as identifying the guilty, the new systems will exonerate the innocent and help the police solve more crimes more quickly than ever before," he said.

Vehicle registration plate recognition software

Number plate recognition software is to be trialed in the ACT by mid-year. The software is capable of recognising plate characters from motion video, allowing members to check registration details of hundreds of vehicles per hour.

The system, which has an added benefit of being capable of sending an SMS message to a mobile phone, can be set-up through any video camera, although will operate most effectively on specialty hardware with infrared capabilities.

On the horizon

In addition to the developments outlined above, at any given time the organisation is examining numerous new technologies for potential use.

The list of potential science and technology projects in active development across the organisation would be too comprehensive to list, however, the following is a snapshot of some of the technology innovations being considered:

- Mobile office
- ACT Policing Service Agreement
- On-board Computing
- PROMIS enhancements and development:
- Locations
- Incident recording/case management
- Property
- Electronic briefs
- PDG tasks
  - Analyst notebook
  - PACE
  - Proceeds of Crime
- IMS
- NTPFES Services Agreement
- AFPSECRETNET
- Desktop Replacement
- Project eXpress (LAN Operating System)
- Application Server Replacement (Unix to Windows)
- Business Continuity Planning
- Data network redundancy
- Computer Centre DR plan
- Video Conferencing
- Threat and Risk Review
- Risk/treatment register
- Security plan
- Policy Review
- Peer-to-peer message queuing
- Commercialisation of PROMIS IP
- IT outsourcing
- TRA
- Benchmarking
- Market testing
- SMS – Groupwise to mobile
- AFPNet connection to ACT Motor Vehicle Registration
- SAP Upgrade

. . . to name but a few.

Ultimately though, it is not technology itself which produces results; it is the people who use it. As UN Secretary General Kofi Annan said in an April 2000 address: "what you need, above all, is brains, which are the one common commodity that is equally distributed among the world's peoples". Without human involvement, even the most state-of-the-art technology is nothing but a useless chunk of metal. Its value comes into play only when combined with intelligence and action.

References

1. US author and futurist Alvin Toffler (addressing the International Symposium on the Future of Law Enforcement, FBI Academy, Quantico, April 1991).
2. 'Digital Frontierland' by Barry Matson
3. The science and technology of building electronic circuits and devices from single atoms and molecules (The American Heritage Dictionary of the English Language, Fourth Edition. 2000, Houghton Mifflin Company)
4. The process or skill of communicating in or deciphering secret writings or ciphers (The American Heritage Dictionary of the English Language, Fourth Edition. 2000, Houghton Mifflin Company.)
5. The statistical study of biological phenomena (The American Heritage Dictionary of the English Language, Fourth Edition. 2000, Houghton Mifflin Company)
6. Team members:
Peter Phillips, MOSC Director
Colin Broekhuyse, Learning and Development.
Steve Sargent, MOSC
Tony Jackson, IT
Peter Norman, IM
Jarrod Ragg, Melbourne
Mike Hawley, Strategic Intelligence
Mark Montgomery, Sydney
Trevor Wynn, Perth
Bob Tait, ACT
Graham Leary, Brisbane
Col Fry, National Operations
Nick McTaggart, Projects Disclosure/Retain