

# SCANNING THE HORIZON

The success of new, more portable passport scanners at points of entry to the UK has paved the way for further advances towards reading biometric data such as fingerprints. **Gary Mason** reports



Counterterrorism officers at UK ports and airports are using mobile document readers to conduct identity checks of travellers. The new devices, which have been used as part of a pilot project since October last year, scan passports and are able to check identity details against data held on the Police National Computer (PNC).

Use of the readers has resulted in a number of significant arrests, including one individual who had an outstanding international warrant for murder against his name.

The trial has been so successful that extra funding has been secured via the National Policing Improvement Agency (NPIA) so the

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device can be enhanced to carry technology that is able to check fingerprints and other images. The trial was overseen by the ACPO Terrorism and Allied Matters (TAM) police liaison unit. DC Richard Evans, who is attached to the unit, says that the new lightweight readers are set to replace similar but bulkier technology that has been used by officers at ports and airports since 2000.

The old technology consisted of three separate elements – including a laptop computer and passport reading device – that had to be carried in a large briefcase.

The link with the PNC was established through a secure network and 110 units were made and distributed throughout the UK.

Although the units were bulky, DC Evans says the technology was cutting edge for its time and ‘changed the way we did business’. He adds: ‘Officers were able to do more checks. The examination area at ports is often some distance away from the main

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office and the equipment allowed them to be more flexible.' The technology was used to great effect during the football World Cup held in Germany and Austria in 2006 to screen people travelling to and from the tournament from the UK. The mobile units led to 100 arrests made at ports and airports – including one for murder – and 130 known hooligans were prevented from travelling to the tournament.

'It was a very effective tool for that kind of major sporting event,' says DC Evans.

### Limitations

As the units got older they were prone to break down, and the shortcomings of having three separate elements to the units became apparent.

For example, the document reader could be detached by an officer and taken onto a vessel to conduct checks but it would then have to be reconnected to the laptop for the results to come through. By that time the ship or coach may have already left the UK, making it too late for officers to take any more action this side of the border.

Previously, connection was restricted at some ports and in some buildings – particular problems were encountered in newer glass and steel terminals which acted virtually like Faraday cages (a metallic enclosure that prevents the entry or escape of an electromagnetic field). The newer device provides improved geographical coverage.

From a practical point of view, officers found the old units too bulky. 'It is a very heavy piece of kit and you would not want to carry it around for very long,' says DC Evans.

As a result of these shortcomings the ACPO TAM police liaison unit was tasked with coming up with something that was smaller and more portable, and could provide greater network coverage. The user requirements for the new device came from officers on the ground who were already working at ports and airports.

The unit looked at more than one supplier but APD Communications – which provided the POLARIS software for the old units, which was also used to link mobile data terminals in Metropolitan Police vehicles – were able to access a new device that could provide enhanced functionality and

## THE PASSPORT READERS ON TRIAL

**APD Communications' Mobile ID Unit is a self-contained, portable travel document scanner, smart card reader and fingerprint reader that can provide secure, integrated communications to security databases such as the Police National Computer (PNC), the voters' register and other specialist databases holding counterterrorism and homeland security data.**

**It combines APD's POLARIS software together with the handheld Datastrip DSVII-PA, using internal rechargeable batteries with an integrated GPRS or terrestrial trunked radio (TETRA) modem.**

**The portable unit can be adapted by adding a camera and iris scanner so that additional biometric data held on travel documents can be validated.**

**Similar devices are already being used for homeland security, military and commercial applications in Europe, the Middle East, Africa, India and North America. It is specifically designed to read and validate a variety of documents and to assist with the identification of individuals.**

portability. A limited trial of the new device was started in October 2008, with 14 devices deployed in 13 force areas. The device is integrated to include a document reader and touchscreen all-in-one unit so that once a passport has been read by the machine it can be checked against the PNC for any outstanding matters.

It runs on the GPRS network, which provides a bigger bandwidth so that responses from the PNC are quicker than the old system.

A motorised roller pulls the passport through the device, ensuring that there are fewer opportunities for misreading the machine readable zone (MRZ) of the document (the page that carries all the identifying data relating to the holder).

### Stress relief

Det Supt Paul Everett, who is in charge of the ACPO TAM liaison unit, says the technology is increasing the effectiveness of officers. 'The 14 trial units are currently generating increased numbers of live checks against PNC indices per month, which represents a significant increase in the number that would have been completed prior to the use of the units,' he says.

'It also obviously relieves the pressures on their colleagues at force control rooms who would have otherwise had to do the checks on their behalf.

'This, I would suggest, represents an increase in productivity and effectiveness.

I should stress here that these are checks across the entire PNC nominal/vehicle indices and do not relate specifically to terrorism related matters.' The liaison team has also been invited by the NPJA to bid for financial support from the £80 million Home Office fund for mobile data technology schemes to help develop the device further. This part of the project will focus mainly on the device's ability to capture and check biometrics such as fingerprints or iris scans and take images.

This is in anticipation of the roll-out of biometric chipping of passports and other identity cards in the UK and throughout the European Union. 'We are working towards a business plan to enhance the functionality of the device,' says DC Evans. 'Clearly, from an operational point of view, it is in our interest to keep this as simple as possible but the idea of a multi-modal device [which can read documents and check different biometrics] is very attractive to us. After all, identifying people is a very important part of the work we do.'

The ACPO TAM liaison team believes that the device has potential applications across counterterrorism work and mainstream policing. Other UK agencies have shown interest in the device, including the UK Football Policing Unit, which is responsible for monitoring the activities of convicted and suspected football hooligans both in the UK and in other countries. ■