

# Passport verification world first



Qantas crew member Bill Eagleton registering for the SmartGate system at Sydney airport.



In a world first pilot, to begin later this year, photo-matching technology will be used by Australian Customs to verify that a passport holder's image matches the individual presenting the document at the border.

The pilot uses Qantas aircrew arriving at Sydney Kingsford Smith Airport.

The automated SmartGate system replaces manual image-verification and immigration checks conducted by Customs officers. The process is expected to take less than ten seconds.

Customs worked closely with Qantas to prepare for the pilot and received strong support from staff and crew who volunteered to participate.

Just as humans recognise people by looking at their faces, computers can also identify a face by analysing a still or video image. The SmartGate system

uses mathematical formulas to measure the unique characteristics of an individual's face and match it to a photo of that person.

Crew who choose not to participate will continue to be processed manually. All crew, processed either manually or by SmartGate, will continue to be subject to existing customs, immigration and quarantine requirements and must continue to declare any matters of potential interest.

After extensively testing various photo-matching systems, Customs is piloting Cognitec System's FaceVACS software.

The FaceVACS system is highly accurate and performs consistently across a range of variables including ethnicity, aging, image quality and changes in facial appearance such as expression, glasses and facial hair.

Customs began investigating new



# Smart Gate

ways to streamline passenger processing because of expected increases in passenger numbers and volumes. In 2000-2001, there were approximately 17.9 million passenger movements in and out of Australia and the Tourism Forecast Council predicts passenger numbers will double over the next ten years. This increase in numbers will be compounded by the introduction of the A380 Airbus aircraft that will carry 25 per cent more passengers than a Boeing 747.

Customs recognises that innovative processing methods are needed to cater for the increase in passenger numbers since existing airport infrastructures are already maximised.

Automated border crossing systems using hand geometry and fingerprint biometrics have been operating for some years in parts of the world and iris-recognition systems have recently been trialled at London's Heathrow and Amsterdam's Schiphol Airports.

Customs decided to pilot photo-matching because it is less intrusive than other biometrics and will better suit Australia's environment. The adoption of photo matching is consistent with the International Civil Aviation Organisation's recommendation of face recognition as the preferred biometric for operation internationally. As well, photographs are already an essential part of identity verification and international travel.

Biometric technology, such as photo-matching, will streamline transactions and reduce congestion while maintaining a high level of security. Border security and identity-verification procedures have been a focus of work in Australian and international border agencies since 11 September 2001.

The United States has already passed legislation requiring, among other things, that visas and foreign passports (for visa-waiver countries) include machine-readable biometric data by 26 October 2004. Australian Customs and partner agencies Passports Australia and the Department of Immigration and Multicultural and Indigenous Affairs are well placed to suggest strategies to assist Australians meet these new requirements.

As with all Customs initiatives, the pilot is being conducted in accordance with the Information Privacy Principles set out in the *Privacy Act 1988*. Customs is continuing a program of cooperation and consultation with the Office of the Federal Privacy Commissioner.

The results of the pilot will be evaluated and feedback will be sought from crew members. If the pilot is successful, photo-matching technology will be rolled out to other airports in 2003 before potentially being expanded for use by all Australian passport holders.