



## FACILITATION (FAL) DIVISION — TWELFTH SESSION

Cairo, Egypt, 22 March to 2 April 2004

### Agenda Item 2: Facilitation and security of travel documents and border control formalities 2.2: Biometrics

#### BIOMETRICS IN PASSPORTS

(Presented by the United States)

#### 1. BACKGROUND

1.1 This paper presents the current status of the development by ICAO of biometric standards and the need for these standards.

1.2 The United States has worked within ICAO for the development and increased use of machine readable passport standards since the development of the first Edition of Doc 9303 – *Machine Readable Passports* in 1981.

1.3 The United States provided the first Chair of the New Technologies Working Group (NTWG) of the Technical Advisory Group on Machine Readable Travel Documents (TAG-MRTD), and has remained active in support of NTWG to the present.

1.4 Since 1997, NTWG has been working on development of Annexes that provide for biometric technologies in travel documents, particularly passports and cards. This work has produced a series of Annexes to the Parts of Doc 9303 describing how biometrics can advance facilitation, assist travel and increase security. Included in this work is a method for Logical Data Structure of the data, and consideration of data protection from unauthorized use.

1.5 The events of 11 September 2001 caused the nations of the world to react to the effects of terrorism, especially its cross-border aspects. In addition to the several thousand American citizen fatalities, citizens of many other countries died in the attack. Subsequently, the United States took prompt legislative action to enhance the border security of the United States by enacting two major pieces of legislation into law.

#### 2. UNITED STATES LEGISLATIVE ACTIONS

2.1 On 26 October 2001, the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT) Act was enacted.

2.2 On 15 May 2002, the Enhanced Border Security and Visa Entry Reform Act of 2002 was signed into law. The most important section of this law is reproduced in part below.

2.3 Section 303 (b) Visa Issuance: "...the Secretary of State shall issue to aliens only machine-readable, tamper-resistant visas and travel and entry documents that use biometric identifiers." Subsequent text identifies the biometric as fingerprints.

2.4 Section 303 (c) Technology Standard for Visa Waiver Participants: "Not later than October 26, 2004, the government of each country that is designated to participate in the visa waiver program ... shall certify, as a condition for designation of continuation of that designation, that it has a program to issue to its nationals machine-readable passports that are tamper-resistant and incorporate biometric identifiers that comply with the applicable biometric identifiers standards established by the International Civil Aviation Organization (emphasis added). ... On or after October 26, 2004, any alien applying for admission under the visa waiver program shall present a passport that meets the (above) requirements unless the alien's passport was issued prior to that date."

### **3. ICAO ACTIONS ON BIOMETRIC IDENTIFIERS STANDARDS**

3.1 At its fourteenth meeting, in May 2003, the TAG/MRTD submitted a four-part recommendation for biometric standards and storage media in travel documents. This recommendation was adopted by the Air Transport Committee of the Council and became known as the ICAO Blueprint.

3.1.1 Facial recognition is the biometric of choice for global interoperability, with fingerprints and iris being permitted as secondary biometrics for national use. Face image is to be digitally stored, compressed to about 10KB.

3.1.2 The storage medium is to be a contactless Integrated Circuit (IC) chip of at least 32KB memory size, conforming to ISO 14443. This is the only optional storage medium that has sufficient storage capacity for biometric image files *and* that is applicable to all three travel document formats, i.e. passports, visas, and ID1-size cards.

3.1.3 Data is to be stored according to a Logical Data Structure, so that receiving States can rapidly and reliably access the data available on the passport.

3.1.4 Data is to be protected from attack, alteration or unauthorized disclosure by a form of public key infrastructure, (PKI), with ICAO to play an important role in key management.

3.2 Subsequent meetings of the NTWG and its sub-groups have further identified the details necessary to establish standards to underpin the globally interoperable system. This work is on going. Ensuring global interoperability of these various chip and reader systems is difficult, especially in areas where the technology standards are still being defined. However, the biometric standards must operate to the same level of global interoperability as the OCR-based data presentations in the machine readable zones of all Doc 9303 compliant documents.

### **4. UNITED STATES ACTIONS SUBSEQUENT TO THE ICAO BIOMETRIC STANDARDS**

4.1 Recognizing the security enhancements offered by biometrics as well as international principles of reciprocity, the United States intends to adhere to the requirements of Section 303 of the Enhanced Border Security Act as listed in paragraphs 2.3 and 2.4 above.

4.2 For passports, the United States has begun a program to produce a passport book incorporating a contactless IC chip containing a digital face image as the biometric, along with replication

of the visual and MRZ data on the passport. Issuance of the first biometrically-enabled United States passport is expected in October 2004.

4.3 For visas, the United States approach for biometric visa issuance captures a facial image and two fingerprints at application, stores these images in a protected system, and uses the reading of the visa at the port of entry as the key to access the information to verify the identity of the visa holder. Digitally stored biometric data is not contained on the visa. Elements of this program are already in place and working effectively.

4.4 In addition to these actions with its national documents, the United States has adopted a pro-active role in other international fora, most notably the G-8 and the OSCE, to advocate increased standards for document issuance procedures, improved document security features, and upgrading of all passports and travel documents to OCR-B machine-readable standards as described in ICAO Doc 9303. In all cases, the primacy of ICAO as the international standards setting organization for travel documents is maintained.

## 5. ACTION BY THE DIVISION

5.1 The Division is invited to:

- a) note biometrics as a significant deterrent to identity fraud;
- b) encourage member States to actively participate in the work of the TAG-MRTD and its working groups; and
- c) encourage States to seek regional or international assistance with logistic or operational problems associated with their machine readable passport systems.

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