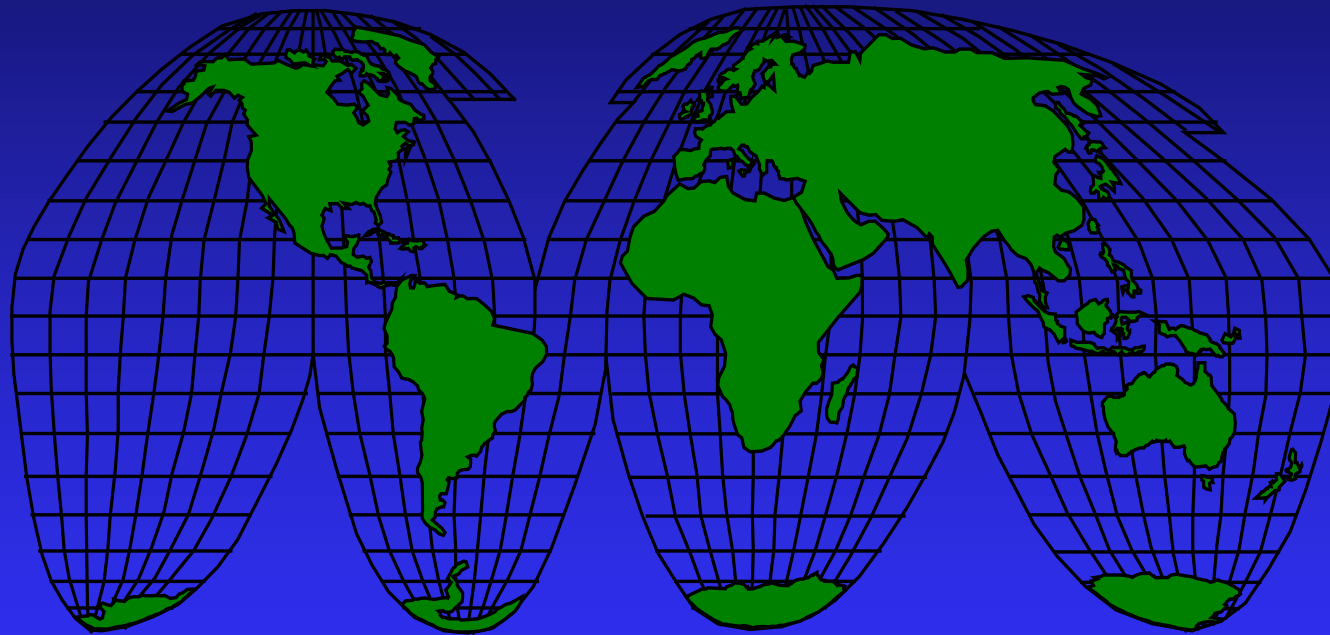


*History of ICAO Document 9303—Its Evolution  
And the Role and Development of the NTWG*



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# *International Civil Aviation Organization (ICAO)*

- United Nations organization
- Established in 1946 by Chicago Convention
- Headquarters in Montreal
- Regional Offices in 7 Countries
- ICAO Assembly (189 Nation States)
- ICAO Council (33 Nation States)
- Members other than Nations
- ICAO Bureaus comprise the structure (e.g., Air Transport Bureau)
- Technical Advisory Group (TAG)
- Very close association with ISO

# *ICAO TAG Work Groups*

- DCAF—Document Content and Format
- EPWG—Education and Promotion
- NTWG
  - New Technologies Work Group
  - Our primary focus for today's presentation
- Each one mirrored by an ISO Task Force

# *Stakeholders in TAG-MRTD*

- Governments -
- Passport and Visa issuing agencies
- Border Control and Immigration
- Customs
- Police and Forensic Labs
- Others, e.g. FAA, Public Printers, USDA -Int'l Orgs, e.g. EU, ICAO, Interpol, ILO
- Non-Governmental Organizations (NGOs) -  
Int'l Standards Organization (ISO)
- Int'l Air Transport Association (IATA)
- Airports Council International (ACI)
- World Travel & Tourism Council (WTTC)
- A myriad of Vendors

# *International Standards Organization (ISO)*

- Association of various national standards bodies (e.g. DIN, INCITS/ANSI, BSI)
- Establishes technical standards requiring international cooperation
- Develops test methods
- Membership is voluntary, dues paying and both government and non-governmental (the latter for travel document meetings)
- Serves as official forum for new technologies
- Complex structure for committees and voting

# ANSI

## *American National Standards Institute*

- U.S. National Body member of JTC 1
- B10 is the most relevant, Cards and Personal identification
- Established the JTC 1 TAG to serve as the Technical Advisory Group (TAG) to ANSI
- Coordinates development of U.S. position with responsible TAG Administrator
- Neutral Body
- Serves as the Secretariat for JTC 1 and SC's 11, 17, 22, 31, 32, 34 and 36
- A host of WG's for contactless chip, contact, optical, DL, etc.

# *INCITS M1*

- Formed as a TG in November 2002
- Appointed as the US TAG for biometrics with SC37
- Replaced ANSI B10 insofar as biometric applications, DL most affected in the transition
- Has developed six WG's
- Work in many areas including Application Profiles, Testing, Interoperability Protocols and others

# *ISO/IEC JTC1/SC17*

## *Cards and Personal Identification*

- WG1 - Physical Characteristics & Test Methods
- WG3 - Machine Readable Travel Documents
- WG4 - Integrated Circuit Cards with Contacts
- WG8 - Contactless Integrated Circuit(s) Cards
- WG9 - Optical Memory Cards
- WG10 - Drivers Licenses

# *US Border Security Act*

- **Section 303(b)(2)(A):** “The Attorney General, in consultation with the Secretary of State, shall install at all ports of entry of the United States equipment and software to allow biometric comparison and authentication of all United States visas and other travel and entry documents issued to aliens, and passports issued pursuant to subsection (c) (1).”
- **Section 303(c)(1):** Requires that the Visa Waiver Program “. . . shall be available to foreign countries that shall certify, as a condition for designation or continuation of that designation that it has ‘a program to issue to its nationals machine-readable passports that are tamper-resistant and incorporate biometric and document authentication identifiers that comply with applicable biometric and document identifying standards established by the International Civil Aviation Organization’.”

# *Documents of ICAO*

- ICAO Doc 9303, when endorsed, becomes ISO Standard 7501
- Doc 9303 Parts 1 (Passports) and 2 (Visas) are endorsed by ISO as Std 7501 Parts 1 & 2
- Doc 9303 Part 3 (Other Travel Documents/Cards) endorsed by ISO as Standard 7501 Part 3
- Doc 9303 Part 4, Crew Member Certificates, abolished; survives as Annex J to Part 3
- ICAO document approvals are generally carried out within one year, TR's issued by Work Group responsible

## *Summary of 9303 Development*

- London November 2000—Contactless chips
- Biometrics Selection TR 2001
- London July 2003—Joint ICAO/ISO Meeting
- LDS TR 2003
- PKI TR 2003
- Biometrics Deployment TR 2003
- Canberra, February 2004
- 9303 Supplement—Kyoto, September 2004
- NTWG—Auckland, December 2004
- Berlin, February 2005—The “Guide”
- Montreal, September 2005

# *Results of Five Years of Work: The New Orleans Resolution*

- Face is THE biometric for global interoperability
- Issuers may optionally use fingerprint and/or iris as additions to facial recognition
- Contactless chips are the data storage medium of choice

# *Testing to Date*

- Canberra, Australia
- Morgantown, West Virginia, USA
- Sydney, Australia
- Baltimore-Washington International Airport, USA
- Tsukuba, Japan
- Singapore
- Several “live tests” recently

# *The Wave of the Present: Travel Document Enhancements*

- Inks
- OVD's of many hues and flavors
- Paper and accompanying measures to protect
- Watermarks of various technologies
- Security printing
- Many others
- Contactless chips-ISO 14443
- Biometrics-face, finger, iris
- Cryptography-data security and integrity
- Data Sharing-bilateral, multilateral, special-purpose, commercial and government
  - ◆ Bilateral and multilateral data sharing
  - ◆ Law enforcement interfaces
  - ◆ Civil records systems-birth, death, marriage, tax, real estate
  - ◆ Commercial services-document features, background checking, etc.

# *Nature of the Threats*

- Counterfeit documents
- Theft of blank documents
- Malfeasance, nonfeasance, corruption
- False identity-using genuine evidence obtained improperly to obtain a genuine document
- False identity-using manufactured evidence of support to obtain a genuine document
- False identity-using lost or stolen already-issued genuine documents
- Multiple issuance/multiple identities

# *Near Term Prospects*

- In September of 2005 ICAO TAG endorsed the newly revised suite of 9303 Part 1 specifications, TF's 1, 4 and 5 held meetings in Ottawa in December, NTWG met in Rome in February and Supplement 9303 Edition 3 was issued to update specifications
- The European Union has directed that passports of member countries will incorporate both face and fingerprint
- Pilot deployment programs and testing will continue, Singapore testing in November shows even more progress, recent live test programs reflect viability
- The testing in Japan and Singapore were significant milestones for the direction of deployments and demonstrates the proof of concepts
- I expect that these tests here will add to our body of knowledge
- Many countries are proceeding toward implementation—over 40 have indicated they will begin to develop programs for e-passports by beginning of 2007

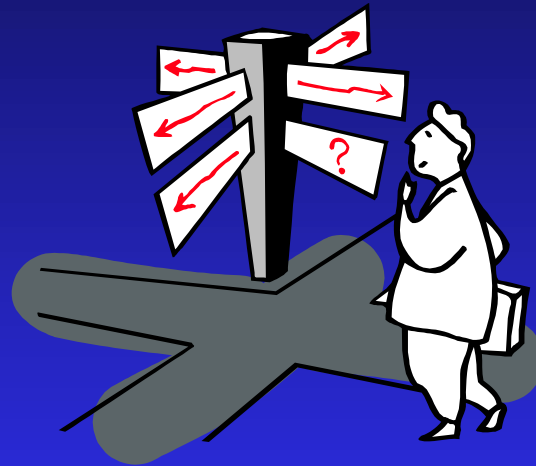
# *Issues Facing Border Control Today*

- Biometrics
- Enrollment and other systems
- Profiling
- Information sharing
- Privacy and data integrity
- New visions

# *The Prognosis*

- Chips
- Enrollment systems
- Biometrics
- Inspection systems

# QUESTIONS?



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