

Update on Annex 9 Developments

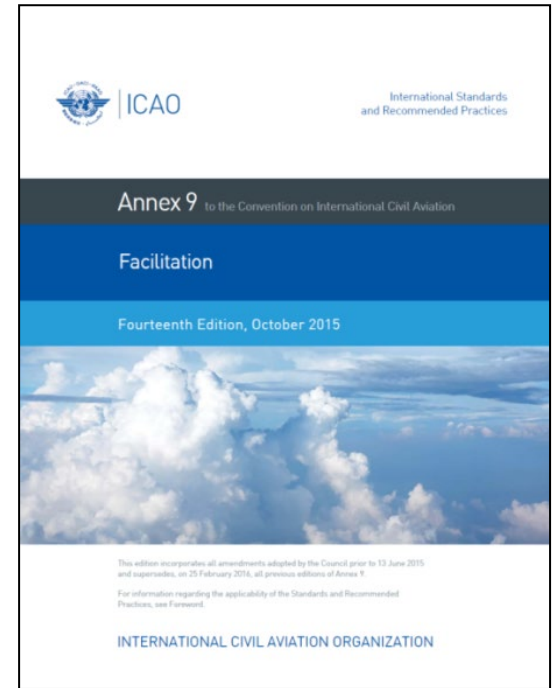


Christopher Hornek
FAL Subject Matter Expert

Annex 9 – *Facilitation*

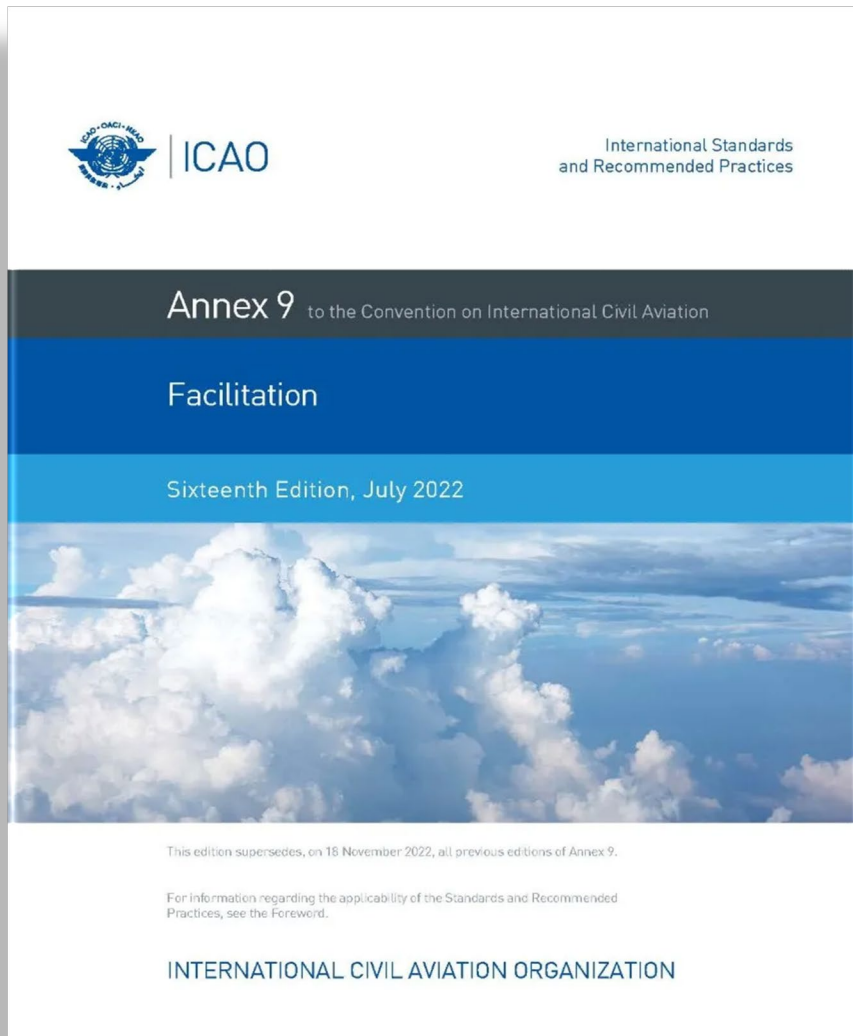
Implementation of the Annex 9 Standards & Recommended Practices (SARPs) are essential to:

- Facilitate the clearance of
 - ✓ Aircraft and crew
 - ✓ Passengers and their baggage
 - ✓ Cargo and mail
- Manage challenges in border controls and airport processes to maintain both the efficiency and security of air transport operations



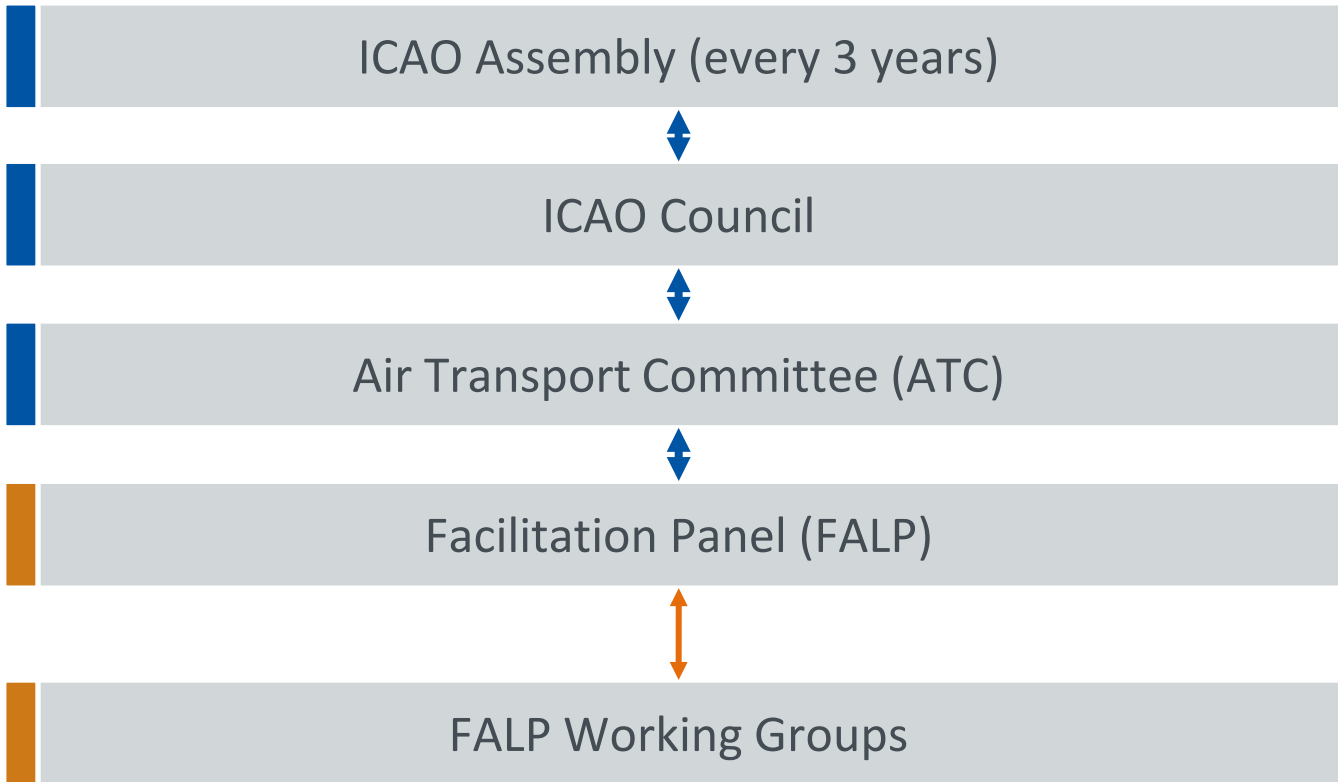
- **Integrates function of agencies related to border control:**
Travel documents, immigration, customs, quarantine, law enforcement, operators
- **Requires inter-agency and cross-border cooperation to implement Annex 9 obligations**

Chapters of Annex 9



- ① Definitions and General Principles
 - ② Entry and departure of aircraft
 - ③ Entry and departure of persons and their baggage
 - ④ Entry and departure of cargo and other articles
 - ⑤ Inadmissible persons and deportees
 - ⑥ International airports — facilities and services for traffic
 - ⑦ Landing elsewhere than at international airports
 - ⑧ Facilitation provisions covering specific subjects
 - ⑨ Passenger data systems (**Amendment 26**)
 - ⑩ Health-related provisions (**Amendment 29**)
- + 13 Appendices

Facilitation Panel (FALP) Structure



Terms of Reference of the FALP:

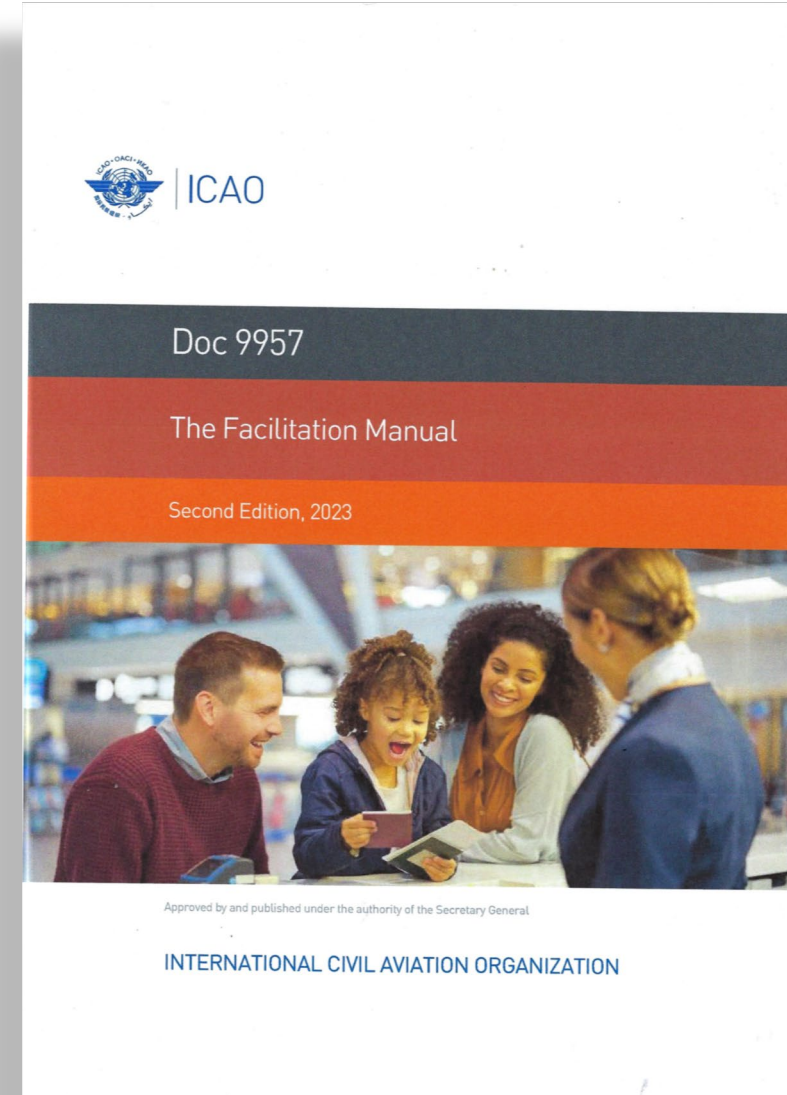
- make proposals on SARPs;
- contribute to guidance material;
- develop proposals for FAL Division meetings;
- perform other tasks assigned by ATC.

- WG on Annex 9 (WGA9);
- WG on Guidance Material (WGGM);
- WG on Accessibility in International Civil Aviation (WGAA);
- WG on Assistance to Aircraft Accident Victims & Their Families (WGAAAVF);
- WG on Facilitation Capacity Building (WGFCB).



The Facilitation Manual, Doc 9957

- Supporting guidance to Annex 9 SARPs legal framework.
- 2nd Edition published in 2023 after extensive review by WGGM.
- Aligned with Amendment 29.
- Updated guidance throughout.
- New guidance on chapters 9 (passenger data) & chapter 10 (health related provisions).

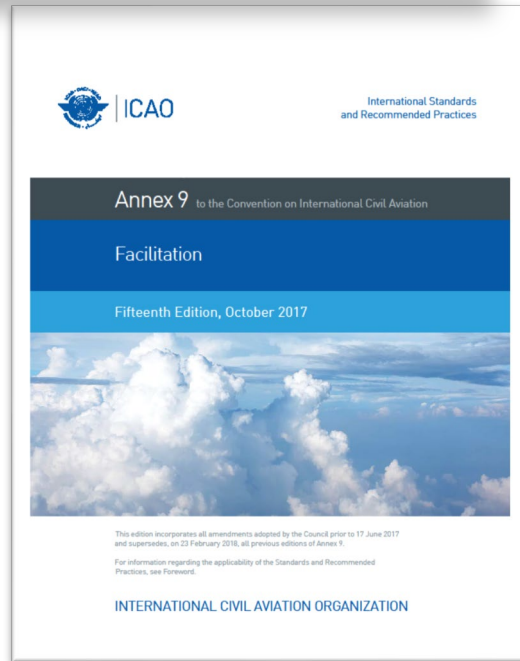
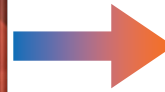


Additional Annex 9 Guidance Materials

- Doc 10042, Model National Air Transport Facilitation Programme.
- Doc 9984, Manual on Access to Air Transport by Persons with Disabilities.
- Doc 9998, ICAO Policy on AAVF.
- Doc 9973, Manual on AAVF.
- Doc 10171, Manual on a Comprehensive Strategy for Combating Human Trafficking in the Aviation Sector.
- Doc 10117, Manual on the Legal Aspects of Unruly and Disruptive Passengers.



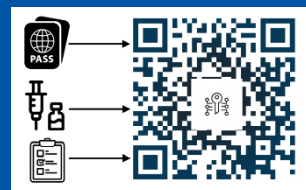
Three Interrelated Facilitation Programmes 7



Key Concepts – ICAO TRIP Strategy



Public Keys are needed to electronically verify eMRTDs



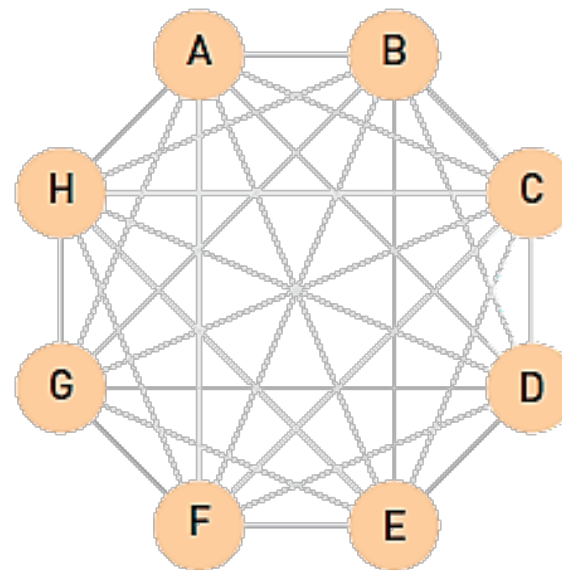
=> The document is digitally signed

Verifying the cryptographic signature with the key verifies authenticity and integrity

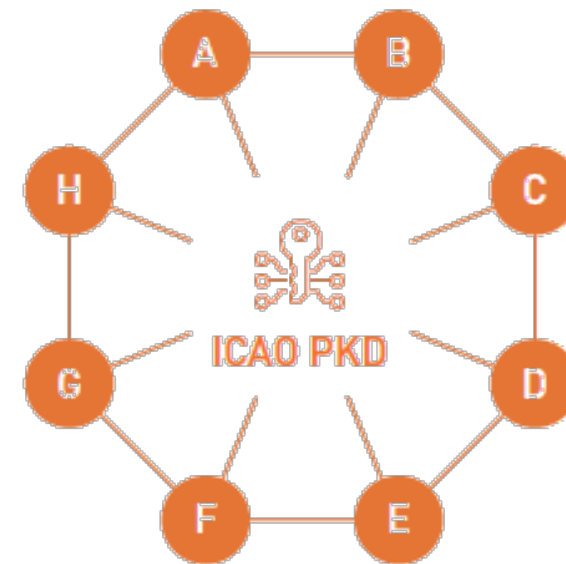
ICAO



ICAO Public Key Directory (PKD) makes it easier to share public keys internationally



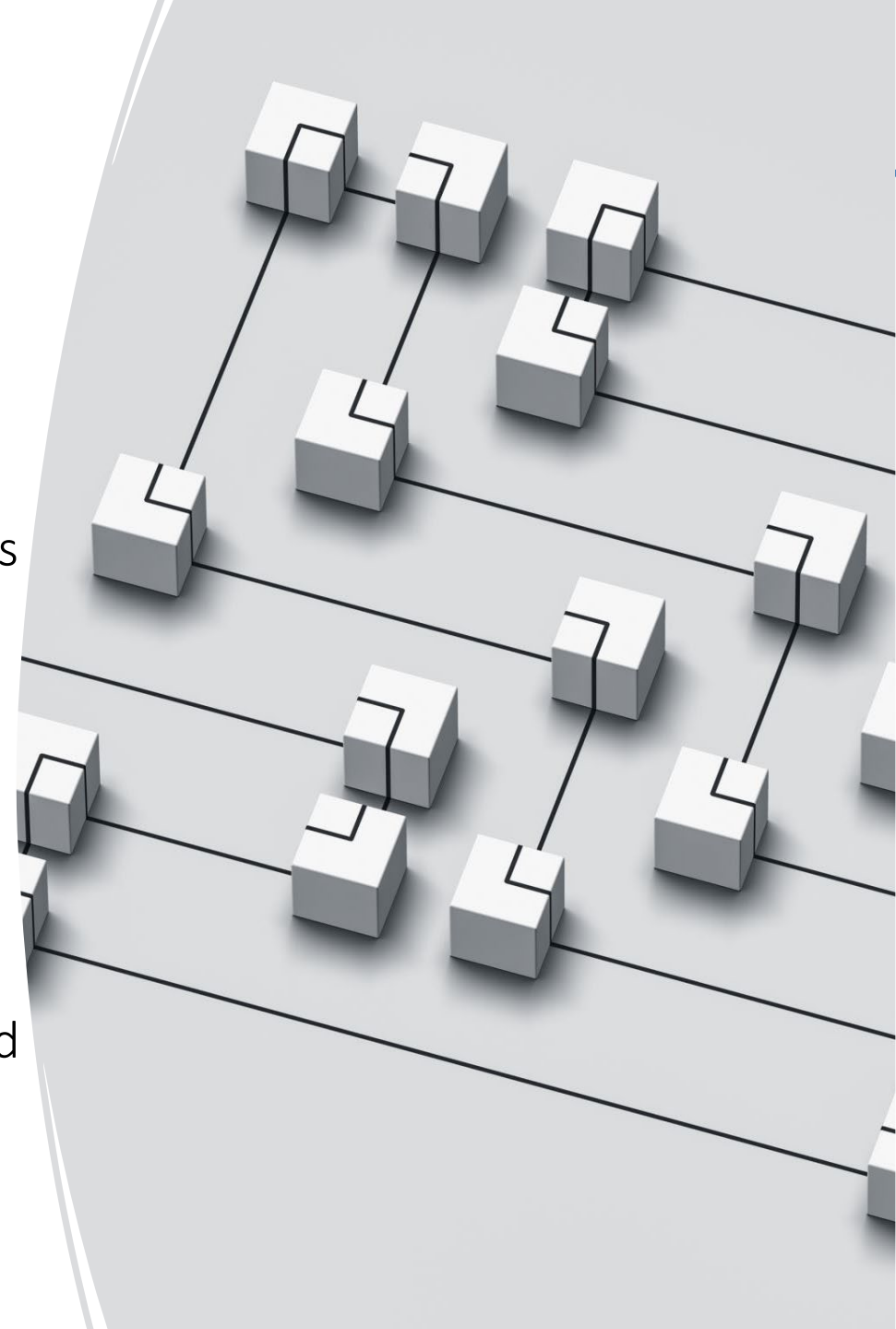
Without the PKD



With the PKD

Joining the PKD is Only the First Step

- ❑ Only participants can upload public key data – you pay to share.
- ❑ Downloading is for free, and all border management agencies can download from the PKD to assist their eMRTD validation.
- ❑ PKD Participants can have the benefits of registered downloads, meaning they are notified of automatic updates and schedule regularly download.
- ❑ Authorities in many States do not use the PKD for border purposes:
 - Structures should be developed so that immigration and other document inspectors regularly download the Master List(s) from the PKD.



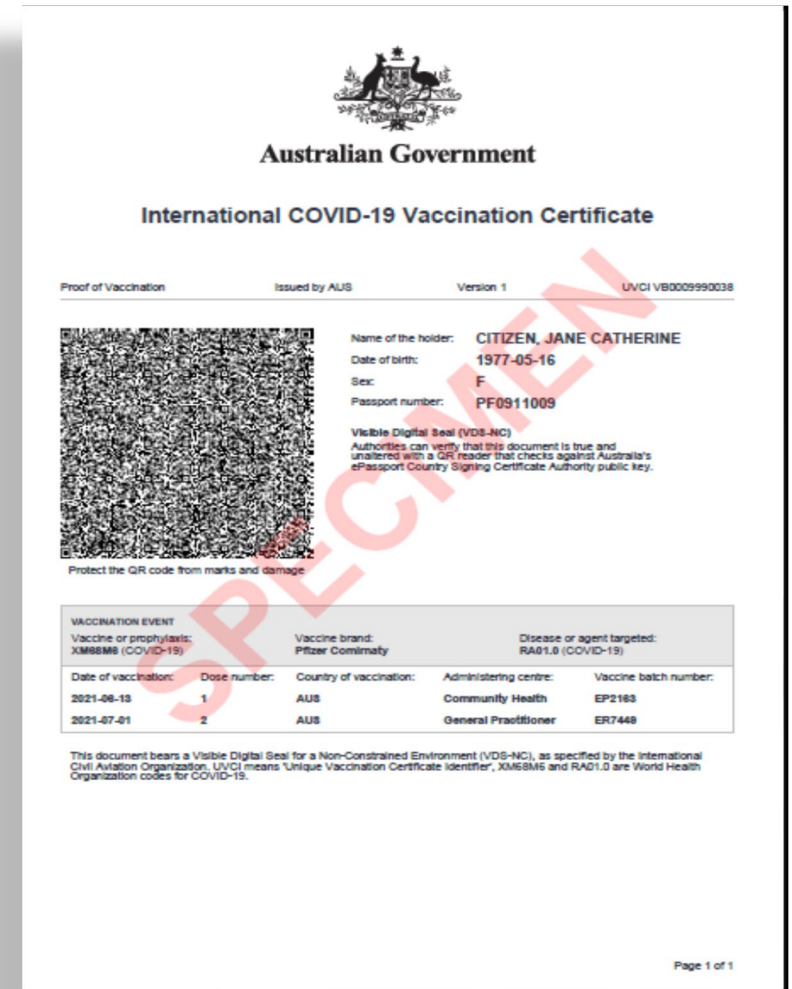
ICAO Datastructure for Barcodes



- ❑ ICAO barcode contains the data of the document and its digital signature, similar to the eMRTD;
- ❑ Digitally signed 2D barcode, extending ICAO trust framework to barcode based documents without a chip;
- ❑ Allows digitally signed barcodes – either paper based or digital – to be easily read and validated in a similar way as eMRTDs;
- ❑ Makes use of the ICAO Public Key Directory (PKD) as a multilateral distribution mechanism;
- ❑ Supports identity binding.

ICAO Datastructure for Barcodes – Use Cases

- Health proofs defined in response to COVID-19 pandemic:
 3. Proof of Covid Testing.
 4. Proof of Covid Vaccination.
 5. Proof of Recovery.

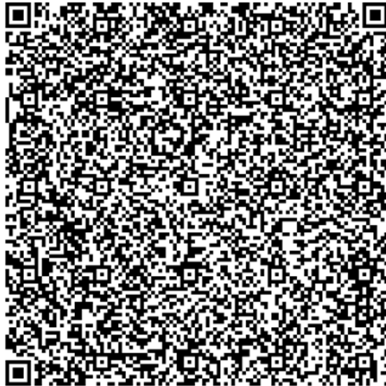



RP 10.2.1 – States should support digital issuance of vaccination certs in line with WHO recommendations and ICAO VDS-NC specifications.

ICAO Datastructure for Barcodes – Use Cases

6. For use in Digital Travel Authorizations (DTA):

- Intended to be used for “eVisa” situations.
- DTA includes a verifiable barcode based on ICAO trust framework.
- Standardized data content, verifiability and easy reading by operators before departure.

Digital Travel Authorization	Issued by UTO	Version 1	DTA Number: N156702B
PERSONAL INFORMATION			
Name of the Holder:	Date of Birth:	Nationality:	Sex:
Anna Maria Eriksson	1952-03-11	USA	F
Passport Number: L8988901C			
DIGITAL TRAVEL AUTHORIZATION			
Place of Issue:	Valid From:	Valid Until:	
Peacetown	2021-06-06	2026-06-06	
Duration of Stay:	Number of Entries:	Type/Class/Category:	
5 years, 0 months, 0 days	Multiple	Tourist	
Additional Information: Employment Prohibited			
			

Doc 9303 Amendments related to Borders

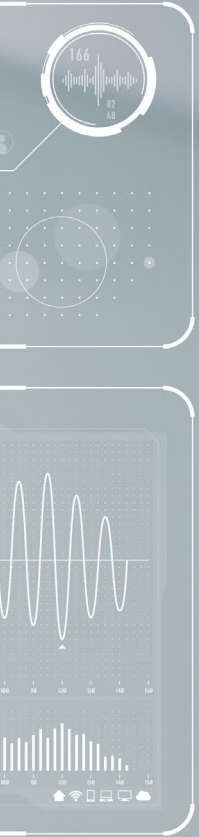


❑ Enhancing data protection measures for eMRTDs

- Basic Access Control (BAC) is the first generation of access control mechanism protecting data on chips of eMRTD from unnoticed access and skimming.
- Inspection systems derive the BAC access key from the document's MRZ, these key are symmetric, meaning the same key is used to encrypt the data for transmission to the reader and to decrypt the data.
- Next generation Password Authenticated Connection Establishment (PACE) employs asymmetric cryptography to establish stronger protection against eavesdropping.

Doc 9303 Amendments related to Borders

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/Administration  
/Human Resources  
/Legal  
/Accounting  
/Finance  
/Marketing  
/Public  
/Operations  
/Business  
/Development  
/Engineering  
/Research  
/Production
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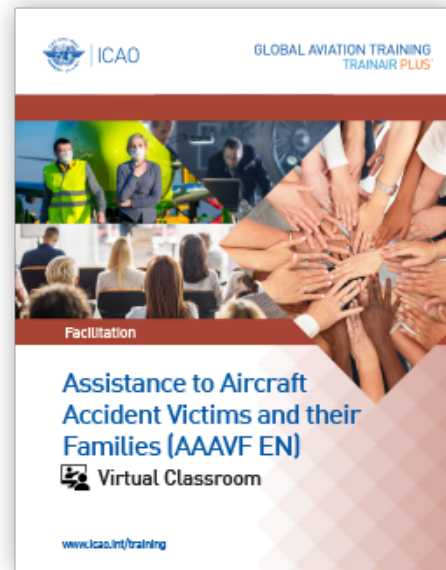
❑ Migration of biometrics data encoding:

- Facial image stored in Data Group 2 (DG2) of eMRTD chips is encoded.
- Current data format (encoding) does not allow for future extensibility of the data, such as for larger portrait images.
- 3rd generation of facial image data encoding will maintain future extensions in a backwards and forwards compatible manner.
- This will resolve compatibility issues when border control systems read the facial image during inspection.



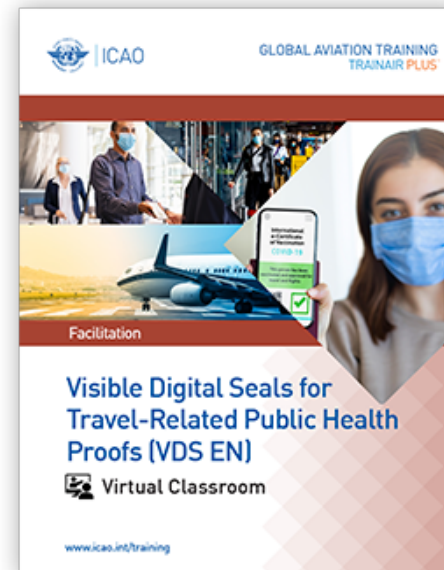
ICAO Annex 9 - Facilitation

The ICAO Annex 9 – Facilitation is virtual classroom course that develops competencies relevant to staff from Civil Aviation Authorities (CAA) and border control authorities to deal collectively, in an inter-agency manner, with Annex 9’s facilitation provisions.



Assistance to Aircraft Accident Victims and their Families

This course will provide CAA representatives, other government officials, aircraft and airport operators and non-governmental organization with the competencies to effectively support aircraft accident victims and their family assistance efforts, in accordance with ICAO Policy.



Visible Digital Seals for Travel-Related Public Health Proofs

This course provides State authorities with the competencies required to implement a national Visible Digital Seal for Non-Constrained Environments (VDS-NC) solution for travel health proof, in accordance with ICAO Doc 9303, Machine Readable Travel Documents, Parts 9-13.



Traveler Identification Programme (TRIP) Strategy

The course provides to the target audience the competencies to implement the five key elements of the ICAO TRIP strategy, ensuring interoperability and internal cooperation, in accordance with Annex 9.

Thank You

