

## G17 Fast-track DIS Cover Page

### DRAFT INTERNATIONAL STANDARD ISO/IEC DIS 7501-1

Attributed to ISO/IEC JTC 1 by the Central Secretariat (see page ii)

Voting begins on  
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NORMALISATION  
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# FAST-TRACK PROCEDURE

## General title E — Identification Cards - Machine Readable Travel Documents

Part 1:

### Part title E Machine readable passport

[Revision of 5th edition (ISO 7501-1:2007)]

*Titre général F —*

*Partie 00: Titre de partie F*

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# Explanatory Report

## ISO/IEC DIS 7501-1:2007

Proposed Short Form Endorsement of

**Sixth Edition of the International Civil Aviation Organization (ICAO) Document; i.e. Doc 9303 Part 1 - Machine Readable Passports; specifically,**

### From **Volume 1 – Passports with Machine Readable Data Stored in Optical Character Recognition Format**

- Section II Technical specifications for machine readable passports –  
References and definitions
- Section III Technical specifications for the security of the design,  
manufacture and issuance of machine readable travel documents  
*except for the following Informative Appendices to Section III, which  
are not adopted,*
- Informative Appendix 1 to Section III.*      *Security Standards for  
machine readable travel  
documents*
  - Informative Appendix 2 to Section III.*      *Machine-assisted  
document security  
verification*
  - Informative Appendix 3 to Section III.*      *The prevention of fraud  
associated with the  
issuance process*
- Section IV Technical specifications for machine readable passports

And,

### From **Volume 2 – Specifications for Electronically Enabled Passports with Biometric Identification Capability**

- Section II The deployment of biometric identification and the electronic  
storage of data in machine readable passports
- Section III A logical data structure for contactless integrated circuit data  
storage technology
- Section IV PKI for machine readable travel documents offering ICC read  
only access *except for the following Informative Appendices to Section  
IV, which are not adopted,*
- Informative Appendix 6 to Section IV.*      *Work examples*
  - Informative Appendix 7 to Section IV.*      *PKI and Security Threats*

**NOTE: ISO/IEC International Standard 7501-1:2007 does not adopt Section I, Introduction from either Volume 1 or Volume 2 of the Sixth Edition of ICAO Doc 9303 Part 1.**

Remarks:

Working Group 3 was set up to consider a number of specific standards related to machine readable passports (MRPs), as well as provide liaison between JTC1 and the International Civil Aviation Organization (ICAO) for ICAO Doc 9303, Part 1, the ICAO Standard defining technical specifications for MRPs. ICAO Doc 9303 is maintained by an ICAO Technical Advisory Group on Machine Readable Travel Documents (TAG/MRTD).

Governed initially by the liaison formula defined in Resolutions 178, 179, and 181 of the 1989 Plenary of SC17 and after 1994 by the liaison formula defined in Resolution 291 of the 1994 Plenary of SC17, Working Group 3 has collaborated with ICAO in the release of a range of Machine Readable Travel Document Standards; i.e. Part 1 of ICAO Doc 9303 (Machine Readable Passport), Part 2 of ICAO Doc 9303 (Machine Readable Visa and Part 3 of ICAO Doc 9303 (Machine Readable Official Travel Documents) each of which has been endorsed through a related publication of a short-form endorsement version of ISO/IEC 7501-1, ISO/IEC 7501-2 and ISO/IEC 7501-3 respectively.

In the interests of standardization and harmonization, as well as improved facilitation and enhanced security, the TAG/MRTD and Working Group 3 supported by SC17 Working Groups 1, 4 and 8 and SC37 collaborated in the development of a new sixth edition of Doc 9303, Part 1. That edition represents a substantial modernization of the material contained in previous editions. In particular, the sixth edition incorporates the new globally interoperable standard for biometric identification of the holder and for the storage of the associated data on a contactless integrated circuit. In consequence, some other biometric identification methods and data storage media, described in the fifth edition of ICAO Doc 9303, Part 1 are no longer to be regarded as options within the globally interoperable standard. Issuing States may, however, use them for their own or agreed bilateral purposes.

Such is the magnitude of the specification for the new globally interoperable biometric identification system and the data storage using a contactless integrated circuit, that ICAO Doc 9303, Part 1, is now divided into two volumes. The first volume, known as ICAO Doc 9303, Part 1, Volume 1, is an updated version of the fifth edition containing all the specifications required for a State to issue a machine readable passport book. The second volume, known as ICAO Doc 9303, Part 1, Volume 2, contains the specifications for enhancing the machine readable passport with the globally interoperable system of biometric identification and its associated data storage utilizing a contactless integrated circuit. *A State wishing to issue a passport designed to facilitate cross-border travel with enhanced security by incorporating the globally interoperable machine assisted biometric identification/data storage system will therefore need to comply with both Volumes of Part 1.* Certain specifications within Volume 1, particularly in relation to the portrait and other identification features, have been amended to ensure that when a State decides to upgrade to a globally interoperable biometric passport, a minimum amount of change to passport production will be involved.

The specifications and guidance material on matters such as naming conventions, transliteration of national characters in the machine readable zone and the calculation of check digits, expanded in the previous edition, have been retained in this first volume of Part 1. The option for the inclusion and placement of a bar code on the data page remains, but it is to be emphasized that the inclusion of a bar code and its data is solely for use by the issuing State or by other States by bilateral agreement; it is not globally interoperable. As before, provision is made for issuing the passport as a wallet-size card in accordance with the specifications for the Size-1 machine readable official travel document as set forth in ICAO Doc 9303, Part 3. The emphasis on the security of the document against fraud by alteration or counterfeit is given greater prominence in this sixth edition, as is the need for security of the premises in which a passport is made, personalized and issued, and for the vetting of staff employed in these activities.

A concept highlighted in the fifth edition was that of “global interoperability”. In this context, the term is understood as the capability of inspection systems (either manual or automated) in different States throughout the world to exchange data, to process data received from systems in other States, and to utilize that data in inspection operations in their respective States. Global interoperability is a major objective of the standardized specifications for placement of both eye readable and machine readable data in all MRTDs. In the security-conscious world of today, the need for machine-assisted global interoperability has become pressing. This has necessitated the standardization on one primary biometric identification method and of one method of data storage. The New Technologies Working Group of the Technical Advisory Group on Machine Readable Travel Documents collaborating with Working Group 3 commenced an evaluation in 1998 of the various options and, in early 2001, selected and recommended the face as the primary biometric with contactless integrated circuit as the data storage technology. The recommendation was made specifically in response to the needs of passport issuing and immigration authorities to ensure accurate identification of a passport applicant or holder while minimizing facilitation problems for the traveler. This recommendation was endorsed by the Air Transport Committee of the ICAO Council in 2003.

Working Group 3 has considered a Draft of the Sixth Edition, ICAO Doc 9303, Part 1 and unanimously agreed to recommend Endorsement as the ISO Standard, consistent with procedure set out in Resolution 291 of the 1994 Plenary of SC17, if a number of clarifications and changes were included. All clarifications and changes have been accepted by ICAO and have been incorporated in the attached copy of ICAO Doc 9303, Part 1 - Machine Readable Passports, Volumes 1 and 2.

Please Note: Appendix 7 to Section IV of Volume 1 of ICAO Doc 9303, Part 1, Sixth Edition which defines three letter codes for use in machine readable official travel documents, is based on Alpha-3 entity codes from ISO 3166. Appendix 7 to Section IV of Volume 1, as presented, may differ from the current version of ISO 3166 due to changes being made to the Standard during the period the attached copy of ICAO Doc 9303, Part 1 was being prepared. A mechanism exists to maintain alignment of both Standards as changes occur. Working Group 3 therefore, requests that SC17 proceed to consider endorsement on the basis that any changes to the Alpha-3 codes defined by the ISO 3166 Maintenance Agency will be included to ensure alignment.

A short form endorsement text for ISO/IEC 7501-1:2007 has been developed by Working Group 3 and is attached herewith.