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Doc 9880

Technical Specifications for ATN using ISO/OSI Standards and Protocols

Second edition, 2016

Part III – Upper Layer Communications Service (ULCS) and Internet Communications Service (ICS)

Approved by and published under the authority of the Secretary General

INTERNATIONAL CIVIL AVIATION ORGANIZATION

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Doc 9880
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AMENDMENTS

Amendments are announced in the supplements to the *Catalogue of ICAO Publications;* the Catalogue and its supplements are available on the ICAO website at www.icao.int. The space below is provided to keep a record of such amendments.

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FOREWORD[1]

This manual contains the detailed technical specifications for the ATN based on relevant standards and protocols established for open systems interconnection (OSI) by the International Organization for Standardization (ISO) and the Telecommunication Standardization Sector of the International Telecommunication Union (ITU-T). A separate manual, the *Manual on the Aeronautical Telecommunication Network (ATN) using Internet Protocol Suite (IPS) Standards and Protocols* (Doc 9896), addresses detailed technical specifications for the ATN based on standards developed for the IPS by the Internet Society (ISOC). Standards and Recommended Practices (SARPs) for the ATN/IPS are contained in Annex 10 — *Aeronautical Telecommunications,* Volume III — *Communication Systems*. Where necessary and to avoid duplication of material, Doc 9896 refers to this manual.

Editorial practices in this document are as follows:

- The detailed technical specifications in this manual that include the operative verb “shall” are essential to be implemented to secure proper operation of the ATN.

- The detailed technical specifications in this manual that include the operative verb “should” are recommended for implementation in the ATN. However, particular implementations may not require this specification to be implemented.

- The detailed technical specifications in this manual that include the operative verb “may” are optional.

This manual is published in the following parts:

Part I: Air-Ground Applications (replaces Doc 9705, Sub-volume II)

Part II: Ground-Ground Applications — Air Traffic Services Message Handling Services (ATSMHS) (replaces Doc 9705, Sub-volume III)

Part III: Upper Layer Communications Service (ULCS) and Internet Communications Service (ICS) (For the moment, Part III of this manual replaces Doc 9705, Sub-volume IV. It will also replace Doc 9705, Sub-volume V once the text of Chapter 3, which is currently being developed, is available.)

Part IV: Directory Services, Security and Identifier Registration (replaces Doc 9705, Sub-volumes I, VII, VIII and IX).

[1] The first edition of this manual amended and replaced the third edition of the *Manual of Technical Provisions for the Aeronautical Telecommunication Network (ATN) (*Doc 9705).

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Structure of Part III:

This part of Doc 9880 contains technical provisions for the upper layer communications service (ULCS) and the Internet communications service (ICS). It is structured as follows:

Chapter 1: INTRODUCTION

Chapter 2: UPPER LAYER COMMUNICATIONS SERVICE (ULCS)

Chapter 3: INTERNET COMMUNICATIONS SERVICE (ICS)

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