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Space data and information transfer systems — Spacecraft onboard interface services — Time access service

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This British Standard is the UK implementation of ISO 17214:2011.

The UK participation in its preparation was entrusted to Technical Committee ACE/68/-/7, Space systems and operations - Space data and information transfer systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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INTERNATIONAL STANDARD

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First edition
2011-12-15

Space data and information transfer systems — Spacecraft onboard interface services — Time access service

Systèmes de transfert des informations et données spatiales — Services d'interfaces à bord des véhicules spatiaux — Service d'accès au temps

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 17214 was prepared by the Consultative Committee for Space Data Systems (CCSDS) (as CCSDS 872.0-M-1, January 2011) and was adopted (without modifications except those stated in Clause 2 of this International Standard) by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 13, *Space data and information transfer systems*.

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Space data and information transfer systems — Spacecraft onboard interface services — Time access service

1 Scope

This International Standard defines services and service interfaces provided by the Spacecraft Onboard Interface Services (SOIS) time access service. It specifies only the service and not the methods of providing the service, although use of the SOIS subnetwork services is assumed.

This International Standard conforms to the principles set out in the SOIS Green Book (CCSDS 850.0-G-1; see Reference A6) and it is intended to be applied together with it.

The scope and field of application are furthermore detailed in subclauses 1.1 and 1.2 of the enclosed CCSDS publication.

2 Requirements

Requirements are the technical recommendations made in the following publication (reproduced on the following pages), which is adopted as an International Standard:

CCSDS 872.0-M-1, January 2011, *Spacecraft onboard interface services — Time access service.*

For the purposes of international standardization, the modifications outlined below shall apply to the specific clauses and paragraphs of publication CCSDS 872.0-M-1.

Pages i to v

This part is information which is relevant to the CCSDS publication only.

Page A-1

Add the following information to the reference indicated:

[A3] Document CCSDS 301.0-B-3, January 2002, is equivalent to ISO 11104:2003.

3 Revision of publication CCSDS 872.0-M-1

It has been agreed with the Consultative Committee for Space Data Systems that Subcommittee ISO/TC 20/SC 13 will be consulted in the event of any revision or amendment of publication CCSDS 872.0-M-1. To this end, NASA will act as a liaison body between CCSDS and ISO.

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The Consultative Committee for Space Data Systems

Recommendation for Space Data System Practices

SPACECRAFT ONBOARD INTERFACE SERVICES—TIME ACCESS SERVICE

RECOMMENDED PRACTICE

CCSDS 872.0-M-1

MAGENTA BOOK

January 2011

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AUTHORITY

Issue:	Recommended Practice, Issue 1
Date:	January 2011
Location:	Washington, DC, USA

This document has been approved for publication by the Management Council of the Consultative Committee for Space Data Systems (CCSDS) and represents the consensus technical agreement of the participating CCSDS Member Agencies. The procedure for review and authorization of CCSDS documents is detailed in the *Procedures Manual for the Consultative Committee for Space Data Systems*, and the record of Agency participation in the authorization of this document can be obtained from the CCSDS Secretariat at the address below.

This document is published and maintained by:

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STATEMENT OF INTENT

The Consultative Committee for Space Data Systems (CCSDS) is an organization officially established by the management of its members. The Committee meets periodically to address data systems problems that are common to all participants, and to formulate sound technical solutions to these problems. Inasmuch as participation in the CCSDS is completely voluntary, the results of Committee actions are termed **Recommendations** and are not in themselves considered binding on any Agency.

CCSDS Recommendations take two forms: **Recommended Standards** that are prescriptive and are the formal vehicles by which CCSDS Agencies create the standards that specify how elements of their space mission support infrastructure shall operate and interoperate with others; and **Recommended Practices** that are more descriptive in nature and are intended to provide general guidance about how to approach a particular problem associated with space mission support. This **Recommended Practice** is issued by, and represents the consensus of, the CCSDS members. Endorsement of this **Recommended Practice** is entirely voluntary and does not imply a commitment by any Agency or organization to implement its recommendations in a prescriptive sense.

No later than five years from its date of issuance, this **Recommended Practice** will be reviewed by the CCSDS to determine whether it should: (1) remain in effect without change; (2) be changed to reflect the impact of new technologies, new requirements, or new directions; or (3) be retired or canceled.

In those instances when a new version of a **Recommended Practice** is issued, existing CCSDS-related member Practices and implementations are not negated or deemed to be non-CCSDS compatible. It is the responsibility of each member to determine when such Practices or implementations are to be modified. Each member is, however, strongly encouraged to direct planning for its new Practices and implementations towards the later version of the Recommended Practice.

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FOREWORD

This document is a technical Recommended Practice for use in developing flight and ground systems for space missions and has been prepared by the Consultative Committee for Space Data Systems (CCSDS). The Time Access Service described herein is intended for missions that are cross-supported between Agencies of the CCSDS, in the framework of the Spacecraft Onboard Interface Services (SOIS) CCSDS area.

This Recommended Practice specifies a set of related services to be used by space missions to obtain onboard time. The SOIS Time Access Service provides provides a common service interface and quality of service regardless of the particular type of data link or protocol being used for communication.

Through the process of normal evolution, it is expected that expansion, deletion, or modification of this document may occur. This Recommended Practice is therefore subject to CCSDS document management and change control procedures, which are defined in the *Procedures Manual for the Consultative Committee for Space Data Systems*. Current versions of CCSDS documents are maintained at the CCSDS Web site:

http://www.ccsds.org/

Questions relating to the contents or status of this document should be addressed to the CCSDS Secretariat at the address indicated on page i.

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- National Aeronautics and Space Administration (NASA)/USA.
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