



Document number ISO/TC 20/SC 13 N1522	
date 2015-10-06	total 19 pages
item number	supersedes document SC 13 N1482

Instructions:

1. Please fill all gray areas like with your updated information. Please use the font of Arial 12pt for gray areas, unless special font requirement is declared for the area.
2. Some gray areas have samples followed. These samples are **NOT** for official use and should be removed before submitting.

ISO TC 20 / SC 13 Status Report

FOREWORD: This report is being submitted for the upcoming 49th ISO TC20 Committee on Aircraft and Space Vehicles Plenary Meeting to be held in Beijing, China, October 14-15, 2015.

1 Title and Scope

Title: Space data and information transfer systems

Scope: Space data systems

2 Chairman and secretary

Chairman:

Name (tenure): Eduardo Whitaker Bergamini

Organization/Country: National Institute for Space Research-INPE (Brazil)

Address: Avenida dos Astronautas, 1758, São José dos Campos,SP, Brazil

Phone: + 55 12 3208 6166/6603 (Fax: + 55 12 3208 6150)
E-mail: e.w.bergamini@uol.com.br

Secretary:

Name (tenure): James Afarin
Organization/Country: National Aeronautics and Space Administration-NASA
Address: NASA Headquarters, Washington, DC, U.S.A.
Phone: + 1-202-358-5221
E-mail: james.afarin@nasa.gov

Secretariat (Optional)

Name (tenure): Nick Tongson (ANSI/U.S.A.)
Organization/Country: American Institute of Aeronautics and Astronautics - AIAA
Address: 1801 Alexander Bell Drive, Suite 500, Reston, VA 20191, U.S.A.
Phone: +1-703-264-7515
E-mail: nickt@aiaa.org

3 Meetings Held Since Last Report (SC and WG)

Meetings held

No.	Date	Place
40	2011-11-16	Moscow, Russia
41	2012-04-24	Darmstadt, Germany
42	2012-12-11	Kennedy Space Center, FL, U.S.A.
43	2013-04-23	Bordeaux-Latresne, France
44	2013-12-10	St. Hubert, Montreal, Quebec, Canada
45	2014-04-08	Noordwijk, Netherlands
46	2015-05-20	Nagano, Japan (Formal Meeting)

Schedule of future meetings

47	2015-11-17	Darmstadt, Germany (Informal Meeting)
----	------------	---------------------------------------

Agenda of the 46th Meeting in Nagano, Japan, in May 20, 2015

1. (13:45) - Opening of the meeting.
2. (13:45-13:50) - Roll call of delegates.
3. (13:50-13:55) - Appointment of the drafting committee.
4. (13:55-14:05) - Approval of the 46th meeting Agenda (**N1508**).
5. (14:05-14:15) - Approval of the previous, 45th Meeting Package (Ref. **N1479**).
6. (14:15- 14:45) - Presentation of Member Report by Delegates.
7. (14:45-14:55) - Report of the Secretary on the last version of the Program of Work.
8. (14:55-15:05) - Report on the 28th ISO/TC20 Plenary held in Bremen, DE, 6-8 Oct. 2014.
9. (15:05-15:20) - Report on the cooperation initiative between CCSDS - ISO TC20/SC13 and ISO TC20/SC14.
10. (15:20 – 15:35) - Review and update of the Resolutions and Action Items.
11. (15:35 – 15:45) - Other Business and Planning for the (informal) 47th meeting.
12. (15:45) - Adjourn

Meeting Packages

The comprehensive compilation of all the information (minutes, resolutions, action items, reports, etc.) which result from each of the Subcommittee meetings

Can be found from the page:

<http://isotc.iso.org/livelink/livelink?func=ll&objId=11659509&objAction=browse&viewType=1>

The meeting package resulting from the last, 46th meeting of the Subcommittee is under preparation at the moment (Oct.5, 2015).

4 Participation and liaisons

4.1 P-member bodies (11)

No.	Country	Member Body
1	U.S.A. (Secretariat)	ANSI
2	BRAZIL (Chairman)	ABNT
3	CHINA	SAC
4	FRANCE	AFNOR
5	GERMANY	DIN
6	INDIA	BIS
7	ITALY	UNI
8	JAPAN	JISC
9	RUSSIAN FEDERATION	GOST R
10	UKRAINE	DSTU
11	UNITED KINGDOM	BSI

Criteria used for the realization of Meetings:

ISO TC20/SC13 Subcommittee Plenary meetings have been occurring under a methodical alternation between Formal and Informal meetings. In Informal meetings P-Member reports are not expected to be presented. At least one Subcommittee meeting, in this case, necessarily a formal meeting must be held over one calendar year.

4.2 O-member bodies (9)

No.	Country	Member Body
1	Argentina	IRAM
2	Finland	SFS
3	Iran, Islamic Republic of	ISIRI
4	Israel	SII
5	Kazakhstan	KAZMEMST
6	Korea, Republic of	KATS
7	Poland	PKN

8
9

Romania
Sweden

ASRO
SIS

Total: 11 + 9 = 20 P + O Member bodies

4.3 Liaisons (Contacts)

Liaisons of ISO TC20/SC13 Subcommittee are being maintained in close parity with those of the Consultative Committee for Space data Systems – CCSDS.

TC/SC	Organization	Category	Person	Contact	E-mail
n/a	CCSDS	A	N. Tongson		NickT@aiaa.org
n/a	ESA	A	Juan Miró		Juan.Miro@esa.int
n/a	ECSS	A	Gilles Moury		Gilles.Moury@cnes.fr
20/14	ISO	B	Fred Slane		freds@spacestandards.org
20/14/WG3	ISO	B	Fred Slane		freds@spacestandards.org
ISOCS	ISO-TPM	B	Andy Dryden		dryden@iso.org
46/4	ISO	B	K.Heiskanen		kati.heiskanen@sfs.fi
46/11	ISO	B	Agnes Simai		agnes.simai@standards.org.au
211	ISO	B	B. Saeteroy		bjs@standard.no
JTC1/SC2	ISO/IEC	B	T. Kimura		kimura@itsci.ipsj.or.jp

JTC1/SC29	ISO/IEC	B	Y. Ogura	sc29-sec@itscj.ipsj.or.jp
JTC1/SC29/ WG1	ISO/IEC	B	Y. Ogura	sc29-sec@itscj.or.jp
JTC1/SC32	ISO/IEC	B	T. Schoechle	timothy@schoechle.org

NAMES OF LIAISON BODIES:

- CCSDS: Consultative Committee for Space Data Systems
- ESA: European Space Agency
- ECSS: European Cooperation for Space Standardization
- ISOCS-TPM: ISO Central Secretariat-Technical Program Manager
- ISO TC20/SC14: Subcommittee on space systems and operations
- ISO TC20/SC14 WG3: Working Group on operations and ground support
- ISO JTC1/SC2: Subcommittee on coded character sets
- ISO JTC1/SC29: Subcommittee on coding audio, picture, multimedia and hypermedia information
- ISO JTC1/SC29/WG1: Working Group on coding of still pictures
- ISO JTC1/SC32: Subcommittee on data management and interchange
- ISO TC 211: Technical Committee on geographic information/geomatics
- ISO TC46/SC11: Subcommittee on archives/records management

- ISO TC46/SC4: Subcommittee on technical interoperability

4.4 Changes since last plenary meeting of ISO/TC 20

No changes in membership were observed over the past 12 months.

4.5 Inactive P-member bodies

Justifications of absence continue to not be received from some of the P-members who have not been attending the Subcommittee Plenary meetings over recent years.

5 Constitution

5.1 Working Groups

There is a direct correspondence between each of the Subcommittee Working Groups and the CCSDS Engineering Steering Group Areas, or CCSDS CESC Areas.

ISO TC20/SC13 Subcommittee performs its functions in association to the structure and processes of the Consultative Committee for Space Data Systems – CCSDS. The production of documents which are standardized in the ISO domain by means of the ISO TC20/SC13 Subcommittee are, in principle, effectively originated and produced by the many CCSDS technical Working Groups – WGs. The many CCSDS WGs are allocated over the many CCSDS CESC Areas. CCSDS WGs are of temporary nature as long they are justified by projects associated to a program of work, pre-approved by the CESC/CCSDS and by CCSDS Management Council (CMC).

Technical products generated by CCSDS WGs are: Recommended Standards (Blue Books), Recommended Practices (Magenta Books) and supporting technical (Green Books) documents. The CCSDS products are primarily oriented to guarantee interoperability of space data systems with special attention to cross-support among multilateral agents who share the execution of a space mission. More details on CCSDS activities which are associated to those of the ISO TC20/SC13 Subcommittee can be found at the Website www.ccsds.org.

Blue and Magenta Books are the CCSDS products regularly submitted as an entry to the DIS stage of processing of ISO TC20/SC13 Subcommittee in the form of a template which is adequate to observe the ISO Cover Sheet process.

5.2 Changes since last plenary meeting of ISO/TC 20

There are no changes in constitution of the Subcommittee over the last year.

6 Any other matters of importance to ISO/TC 20

A modular and scalable structured information system which deals with different items, in the form of a hierarchy of folders, sub-folders and files is being regularly maintained and updated with key contents (meeting packages, reports, listing of packages, etc.) which are derived from the Subcommittee activities.

The two following URL pointers, associated to two different Websites, provide entries for reaching the structured contents which are maintained and regularly updated by the Subcommittee:

6.1 In the ISO TC20/SC13 ISO-LiveLink Website:

<http://isotc.iso.org/livelink/livelink?func=ll&objId=8791604&objAction=browse&sort=name&viewType=1>

6.2 In the ISO TC20/SC13 CCSDS-CWE Website:

<http://cwe.ccsds.org/cmc/docs/Forms/AllItems.aspx?RootFolder=%2Fcmc%2Fdocs%2FISO%20TC20%2DSC13%20Subcommittee&View=%7BD5DD30F7%2D53FC%2D45B9%2D8B93%2D709B280A475B%7D&>

7 Programme of work

The Programme of Work which is presented below reflects the status of the work items of ISO TC20/SC13 Subcommittee as of August 2015. A more detailed presentation of the Subcommittee Program of Work can be found at <http://isotc.iso.org/livelink/livelink?func=ll&objId=17300951&objAction=Open&nexturl=%2Flivelink%2Flivelink%3Ffunc%3DII%26objId%3D10035623%26objAction%3Dbrowse%26viewType%3D1> which belongs to a folder which is cumulatively updated on a monthly basis, in this way, containing also the previous monthly issues of the Subcommittee Program of Work. The Chairman of ISO TC20/SC13 Subcommittee wishes to mention that, on a monthly basis, if any, the updating inputs for a subsequent Subcommittee Program of Work are regularly provided by Mr. Nick Tongson who works for the secretariat of the Subcommittee. He also wishes to mention the careful and detailed, corresponding work that has been methodically executed on a monthly basis by INPE/Brazil secretary, Ms. Helen Joyce A. F. Leite in the updating work for each new, monthly issue of the Subcommittee Program of Work. This is also the case for her effort in preparing each new version of the Programme of Work for the annual Subcommittee Report to ISO/TC20, which is also the case of the current version of the Programme of Work which is being presented, as follows:

a. Published standards: 60 (Publication Stage)

ISO 17107:2011	Space data and information transfer systems -- XML specification for navigation data messages	60.60
ISO 17214:2011	Space data and information transfer systems -- Spacecraft onboard interface services -- Time access service	60.60
ISO 22671:2011	Space data and information transfer systems -- Space link extension (SLE) -- Forward communications link transmission unit (CLTU) service	60.60
ISO 15889:2011	Space data and information transfer systems -- The data description language EAST specification	60.60
ISO 11104:2011	Space data and information transfer systems -- Time code formats	60.60
ISO 22672:2011	Space data and information transfer systems -- Space link extension (SLE) -- Forward space packet service specification	60.60
ISO 16363:2012	Space data and information transfer systems -- Audit and certification of trustworthy digital repositories	60.60
ISO 22641:2012	Space data and information transfer systems -- TM (telemetry) synchronization and channel coding	60.60
ISO 14721:2012	Space data and information transfer systems -- Open archival information system (OAIS) -- Reference model	60.60
ISO 22666:2007/Amd 1:2015	Space data and information transfer systems -- AOS (advanced orbiting systems) space data link protocol -- Amendment 1	60.60
ISO 18423:2015	Space data and information transfer systems -- Pseudo-Noise (PN) Ranging Systems	60.60
ISO 13526:2010/Amd 1:2015	Space data and information transfer systems -- Tracking data message -- Amendment 1	60.60
ISO 18428:2013	Space data and information transfer systems -- Spacecraft Onboard Interface Services -- Subnetwork Device Discovery Service	60.60
ISO 18444:2013	Space data and information transfer systems -- Space Link Extension -- Application Program Interface for Return Operational Control Fields Service	60.60
ISO 12175:1994/Amd 1:2015	Space data and information transfer systems -- Standard formatted data units -- Structure and construction rules -- Amendment 1	60.60
ISO 18425:2013	Space data and information transfer systems -- Spacecraft Onboard Interface Services -- Subnetwork Packet Service	60.60
ISO 16919:2014	Space data and information transfer systems -- Requirements for bodies providing audit and certification of candidate trustworthy digital repositories	60.60
ISO 17809:2014	Space data and information transfer systems - Delta-differential one-way ranging (Delta-DOR) operations	60.60
ISO 22669:2013	Space data and information transfer systems -- Space link extension (SLE) -- Return-all-frames service	60.60
ISO 20104:2015	Space data and information transfer systems -- Producer-Archive Interface Specification (PAIS)	60.60
ISO 18442:2013	Space data and information transfer systems -- Space Link Extension -- Application Program Interface for Return All Frames Service	60.60
ISO 20217:2015	Space data and information transfer systems -- Spacecraft onboard interface services -- File and packet store services	60.60
ISO 18426:2013	Space data and information transfer systems -- Spacecraft Onboard Interface Services -- Subnetwork Memory Access Service	60.60
ISO 19389:2014	Space data and information transfer systems -- Conjunction data message	60.60
ISO 18424:2013	Space data and information transfer systems -- XML Telemetric and Command Exchange (XTCE)	60.60

ISO 17854:2013	Space data and information transfer systems -- Flexible advanced coding and modulation scheme for high rate telemetry applications	60.60
ISO 18427:2013	Space data and information transfer systems -- Spacecraft Onboard Interface Services -- Subnetwork Synchronization Service	60.60
ISO 18381:2013	Space data and information transfer systems -- Lossless multispectral and hyperspectral image compression	60.60
ISO 22667:2013	Space data and information transfer systems -- Communications operation procedure-1	60.60
ISO 18443:2013	Space data and information transfer systems -- Space Link Extension -- Application Program Interface for Return Channel Frames Service	60.60
ISO 18201:2013	Space data and information transfer systems -- Mission operations reference model	60.60
ISO 20106:2015	Space data and information transfer systems -- Mission operations common object model	60.60
ISO 22664:2013/Amd 1:2015	Space data and information transfer systems -- TC (telecommand) space data link protocol -- Amendment 1	60.60
ISO 20216:2015	Space data and information transfer systems -- Spacecraft onboard interface services -- Device data pooling service	60.60
ISO 20211:2015	Space data and information transfer systems -- Spacecraft Onboard Interface Services -- Device Access Service	60.60
ISO 18438:2013	Space data and information transfer systems -- Spacecraft Onboard Interface Services -- Subnetwork Test Service	60.60
ISO 20207:2015	Space data and information transfer systems -- CCSDS Space Link Protocols over ETSI DVB-S2 Standard	60.60
ISO 22646:2005/Amd 1:2015	Space data and information transfer systems -- Space packet protocol -- Amendment 1	60.60
ISO 20205:2015	Space data and information transfer systems -- Spacecraft Onboard Interface Systems -- Low Data-Rate Wireless Communications for Spacecraft Monitoring and Control	60.60
ISO 22642:2005/Cor 1:2007	Space data and information transfer systems -- TC (telecommand) synchronization and channel coding -- Technical Corrigendum 1	60.60
ISO 20107:2015	Space data and information transfer systems -- Spacecraft onboard interface services -- Device virtualization service	60.60
ISO 20210:2015	Space data and information transfer systems -- Mission Operations Message Abstraction Layer - JAVA API	60.60
ISO 21460:2015	Space data and information transfer systems -- Proximity-1 space link protocol -- Physical layer	60.60
ISO 18441:2013	Space data and information transfer systems -- Space Link Extension -- Application Program Interface for Transfer Services -- Core Specification	60.60
ISO 20206:2015	Space data and information transfer systems -- IP over CCSDS space links	60.60
ISO 18439:2013	Space data and information transfer systems -- Space Communication Cross Support -- Service Management -- Service Specification	60.60
ISO 20208:2015	Space data and information transfer systems -- Delta-DOR Raw Data Exchange Format	60.60
ISO 17810:2014	Space data and information transfer systems -- Data transmission and pseudo-random noise (PN) ranging for 2 GHz code division multiple access (CDMA) link via data relay satellite	60.60
ISO 15887:2013	Space data and information transfer systems -- Lossless data compression	60.60
ISO 18440:2013	Space data and information transfer systems -- Space Link Extension -- Internet Protocol for Transfer	60.60

Services		
ISO 18446:2013	Space data and information transfer systems -- Space Link Extension -- Application Program Interface for the Forward Space Packet Service	60.60
ISO 17807:2013	Space data and information transfer systems - Asynchronous message service	60.60
ISO 20213:2015	Space data and information transfer systems -- Spacecraft onboard interface services -- Message transfer service	60.60
ISO 26143:2013	Space data and information transfer systems -- Space link extension (SLE) -- Return operational control fields service	60.60
ISO 21459:2015	Space data and information transfer systems -- Proximity-1 space link protocol -- Coding and synchronization sublayer	60.60
ISO 20215:2015	Space data and information transfer systems -- CCSDS cryptographic algorithms	60.60
ISO 22664:2013	Space data and information transfer systems -- TC (telecommand) space data link protocol	60.60
ISO 17808:2014	Space data and information transfer systems -- Telemetry (TM) channel coding profiles	60.60
ISO 18445:2013	Space data and information transfer systems -- Space Link Extension -- Application Program Interface for the Forward CLTU Service	60.60
ISO 20214:2015	Space data and information transfer systems -- Security architecture for space data systems	60.60
ISO 22670:2013	Space data and information transfer systems -- Space link extension (SLE) -- Return-channel-frames service	60.60
ISO 20105:2015	Space data and information transfer systems -- Operation of CFDP over encapsulation service	60.60
ISO 22645:2005/Amd 1:2015	Space data and information transfer systems -- TM (telemetry) space data link protocol -- Amendment 1	60.60
ISO 22663:2015	Space data and information transfer systems -- Proximity-1 space link protocol -- Data link layer	60.60
ISO 18382:2013	Space data and information transfer systems -- Spacecraft onboard interface services -- RFID-based inventory management systems	60.60
ISO 10537:2010/Amd 1:2015	Space data and information transfer systems -- Encapsulation service -- Amendment 1	60.60
ISO 22642	Space data and information transfer systems -- TC synchronization and channel coding	60.00

b. Registered Work items: 2 including 1 revision

Approval stage: 50 (Approval stage)

NONE

Enquiry stage: 40 (Enquiry stage)

ISO/DIS 18202	Space data and information transfer systems -- Mission operations message abstraction layer	40.99
ISO/DIS 20618	Space data and information transfer systems -- Spacecraft onboard interface services -- Device enumeration service	40.99

Committee Stage: 30 (Committee stage)

NONE

Preparatory Stage: 20 (Preparatory stage)

NONE

c. Possible new work items: 4 including 0 revisions

Proposal Stage: 10 (Proposal stage)

ISO/NP 21076	Space data and information transfer systems -- Space communications cross support -- Architecture requirements document (based on CCSDS 901.1-M-1)	10.99
ISO/NP 21080	Space data and information transfer systems -- Licklider transmission protocol (LTP) for CCSDS (based on CCSDS 734.1-B-1)	10.99
ISO/NP 21077	Space data and information transfer systems -- Digital motion imagery (based on CCSDS 766.1.-B-1)	10.99
ISO/NP 21082	Mission operations -- Message abstraction layer (MAL) space packet transport binding and binary encoding	10.99

Preliminary Stage: 00 (Preliminary stage)

NONE

d. Work Programme Reallocation: 90 (Review stage)

ISO 10537:2010	Space data and information transfer systems -- Encapsulation service	90.20 (Start date: 2015-07-15 End date: 2015-12-16)
ISO 13541:2010	Space data and information transfer systems -- Attitude data messages	90.20 (Start date: 2015-07-15 End date: 2015-12-16)
ISO 13537:2010	Space data and information transfer systems -- Reference architecture for space data systems	90.20 (Start date: 2015-07-15 End date: 2015-12-16)
ISO 13527:2010	Space data and information transfer systems -- XML formatted data unit (XFDU) structure and construction rules	90.20 (Start date: 2015-07-15)

		End date: 2015-12-16)
ISO 15893:2010	Space data and information transfer systems -- Space communications protocol specification (SCPS) -- Transport protocol (SCPS-TP)	90.20 (Start date: 2015-07-15 End date: 2015-12-16)
ISO 15396:2007	Space data and information transfer systems -- Cross support reference model -- Space link extension services	90.20 (Start date: 2015-07-15 End date: 2015-12-16)
ISO 22647:2010	Space data and information transfer systems -- Space link identifiers	90.20 (Start date: 2015-07-15 End date: 2015-12-16)
ISO 17355:2007	Space data and information transfer systems -- CCSDS file delivery protocol	90.60
ISO 22642:2005	Space data and information transfer systems -- TC (telecommand) synchronization and channel coding	90.92
ISO 18202:2013	Space data and information transfer systems -- Mission operations message abstraction layer	90.92
ISO 15888:2000	Space data and information transfer systems -- Standard formatted data units -- Referencing environment	90.93
ISO 20652:2006	Space data and information transfer systems -- Producer-archive interface -- Methodology abstract standard	90.93
ISO 13764:1996	Space data and information transfer systems -- Standard formatted data units -- Control authority procedures	90.93
ISO 22645:2005	Space data and information transfer systems -- TM (telemetry) space data link protocol	90.93
ISO 26868:2009	Space data and information transfer systems -- Image data compression	90.93
ISO 14961:2002	Space data and information transfer systems -- Parameter value language specification	90.93
ISO 21961:2003	Space data and information transfer systems -- Data entity dictionary specification language (DEDSL) -- Abstract syntax	90.93
ISO 14962:1997	Space data and information transfer systems -- ASCII encoded English	90.93
ISO 22646:2005	Space data and information transfer systems -- Space packet protocol	90.93
ISO 22666:2007	Space data and information transfer systems -- AOS (advanced orbiting systems) space data link protocol	90.93
ISO 13526:2010	Space data and information transfer systems -- Tracking data message	90.93
ISO 22643:2003	Space data and information transfer systems -- Data entity dictionary specification language (DEDSL) -- XML/DTD Syntax	90.93
ISO 21962:2003	Space data and information transfer systems -- Data entity dictionary specification language (DEDSL) -- PVL syntax	90.93
ISO 15395:1998	Space data and information transfer systems -- Standard formatted data units -- Control authority data structures	90.93
ISO 12175:1994	Space data and information transfer systems -- Standard formatted data units -- Structure and construction rules	90.93

e. Standards withdrawn: 95 (Withdrawal stage)

ISO 11104:2003	Space data and information transfer systems -- Time code formats
ISO 15887:2000	Space data and information transfer systems -- Data systems -- Lossless data compression
ISO 18423:2013	Space data and information transfer systems -- Pseudo-Noise (PN) Ranging Systems
ISO 22669:2003	Space data and information transfer systems -- Space link extension (SLE) -- Return-all-frames service
ISO 21459:2006	Space data and information transfer systems -- Proximity-1 space link protocol -- Coding and synchronization sublayer
ISO 15889:2003	Space data and information transfer systems -- Data description language -- EAST specification
ISO 22669:2007	Space data and information transfer systems -- Space link extension (SLE) -- Return-all-frames service
ISO 15396:1998	Space data and information transfer systems -- Cross support reference model -- Space link extension services
ISO 11754:1994	Space data and information transfer systems -- Telemetry channel coding
ISO 22663:2007	Space data and information transfer systems -- Proximity-1 space link protocol -- Data link layer
ISO 17433:2001	Space data and information transfer systems -- Packet telemetry services
ISO 17355:2003	Space data and information transfer systems -- CCSDS file delivery protocol
ISO 13419:2003	Space data and information transfer systems -- Packet telemetry
ISO 15887:2000/Cor 1:2009	Space data and information transfer systems -- Data systems -- Lossless data compression -- Technical Corrigendum 1
ISO 12173:1998	Space data and information transfer systems -- Telecommand -- Command operation procedures
ISO 22647:2006	Space data and information transfer systems -- Space link identifiers
ISO 22664:2005	Space data and information transfer systems -- TC (telecommand) space data link protocol
ISO 22644:2006	Space data and information transfer systems -- Orbit data messages
ISO 13419:1997	Space data and information transfer systems -- Packet telemetry
ISO 22672:2006	Space data and information transfer systems -- Space link extension (SLE) -- Forward space packet service
ISO 17355:2004	Space data and information transfer systems -- CCSDS file delivery protocol
ISO 15894:2000	Space data and information transfer systems -- Protocol specification for space communications -- File protocol
ISO 14721:2003	Space data and information transfer systems -- Open archival information system -- Reference model
ISO 11104:1991	Space data and information transfer systems -- Time code formats
ISO 17433:2003	Space data and information transfer systems -- Packet telemetry services
ISO 15889:2000	Space data and information transfer systems -- Data description language -- EAST specification
ISO 14961:1997	Space data and information transfer systems -- Parameter value language specification
ISO 22671:2007	Space data and information transfer systems -- Space link extension (SLE) -- Forward communications link transmission unit (CLTU) service
ISO 21460:2006	Space data and information transfer systems -- Proximity-1 space link protocol -- Physical layer
ISO 11754:2003	Space data and information transfer systems -- Telemetry channel coding
ISO 21460:2007	Space data and information transfer systems -- Proximity-1 space link protocol -- Physical layer
ISO 15893:2000	Space data and information transfer systems -- Protocol specification for space communications -- Transport protocol

ISO 12174:1998	Space data and information transfer systems -- Telecommand -- Data management service -- Architectural specification
ISO 12172:2003	Space data and information transfer systems -- Telecommand -- Data routing service
ISO 13420:1997	Space data and information transfer systems -- Advanced orbiting systems -- Networks and data links -- Architectural specification
ISO 22663:2006	Space data and information transfer systems -- Proximity-1 space link protocol -- Data link layer
ISO 22671:2005	Space data and information transfer systems -- Space link extension (SLE) -- Forward command link transmission unit (CLTU)
ISO 15892:2000	Space data and information transfer systems -- Protocol specification for space communications -- Security protocol
ISO 12174:2003	Space data and information transfer systems -- Telecommand -- Architectural specification for the data management service
ISO 22667:2005	Space data and information transfer systems -- Communication operations Procedure-1
ISO 12171:1998	Space data and information transfer systems -- Telecommand -- Channel service -- Architectural specification
ISO 22666:2005	Space data and information transfer systems -- AOS (advanced orbiting systems) space data link protocol
ISO 11103:1991	Space data and information transfer systems -- Radio metric and orbit data
ISO 26143:2007	Space data and information transfer systems -- Space link extension (SLE) -- Return operational control fields service
ISO 12173:2003	Space data and information transfer systems -- Telecommand -- Command operation procedures
ISO 22641:2005	Space data and information transfer systems -- TM (telemetry) synchronization and channel coding
ISO 15891:2000	Space data and information transfer systems -- Protocol specification for space communications -- Network protocol
ISO 22670:2006	Space data and information transfer systems -- Space link extension (SLE) -- Return-channel-frames service
ISO 12172:1998	Space data and information transfer systems -- Telecommand -- Data routing service
ISO 12171:2002	Space data and information transfer systems -- Telecommand -- Channel service

International harmonized stage codes

STAGE	SUBSTAGE						
				90 Decision Substages			
	00 Registration	20 Start of main action	60 Completion of main action	92 Repeat an earlier phase	93 Repeat current phase	98 Abandon	99 Proceed
00 Preliminary stage	00.00 Proposal for new project received	00.20 Proposal for new project under review	00.60 Close of review			00.98 Proposal for new project abandoned	00.99 Approval to ballot proposal for new project
10 Proposal stage	10.00 Proposal for new project registered	10.20 New project ballot initiated	10.60 Close of voting	10.92 Proposal returned to submitter for further definition		10.98 New project rejected	10.99 New project approved
20 Preparatory stage	20.00 New project registered in TC/SC work programme	20.20 Working draft (WD) study initiated	20.60 Close of comment period			20.98 Project deleted	20.99 WD approved for registration as CD
30 Committee stage	30.00 Committee draft (CD) registered	30.20 CD study/ballot initiated	30.60 Close of voting/ comment period	30.92 CD referred back to Working Group		30.98 Project deleted	30.99 CD approved for registration as DIS
40 Enquiry stage	40.00 DIS registered	40.20 DIS ballot initiated: 5 <i>months</i>	40.60 Close of voting	40.92 Full report circulated: DIS referred back to TC or SC	40.93 Full report circulated: decision for new DIS ballot	40.98 Project deleted	40.99 Full report circulated: DIS approved for registration as FDIS
50 Approval stage	50.00 FDIS registered for formal approval	50.20 FDIS ballot initiated: 2 <i>months</i> . Proof sent to secretariat	50.60 Close of voting. Proof returned by secretariat	50.92 FDIS referred back to TC or SC		50.98 Project deleted	50.99 FDIS approved for publication
60 Publication stage	60.00 International Standard under publication		60.60 International Standard published				
90 Review stage		90.20 International Standard under periodical review	90.60 Close of review	90.92 International Standard to be revised	90.93 International Standard confirmed		90.99 Withdrawal of International Standard proposed by TC or SC
95 Withdrawal stage		95.20 Withdrawal ballot initiated	95.60 Close of voting	95.92 Decision not to withdraw International Standard			95.99 Withdrawal of International Standard

This annual report was prepared by the ISO TC20/SC13 Subcommittee Chairman and Secretary, who are undersigned in the following line:

EDUARDO W. BERGAMINI
Chairman, ISO TC20/SC13
Subcommittee

JAMES AFARIN
Secretary, ISO TC20/SC13
Subcommittee

October 05, 2015

--//--

