FRENCH REPORT to ISO/TC20/SC13
submitted by CNES on behalf of AFNOR
Darmstadt, ESA, November 2017

1 – MANAGEMENT:

1-1 OGANIZATION

The Director in charge of Standardization in CNES is the Head of the Orbital Systems Development, Mrs Marie Anne Clair. This Directorate is based in the CNES Toulouse Space Center.

1-2 AREA OF AGENCY INVOLVEMENT

Global, for category A missions.

1-3 MANPOWER ALLOTED TO TC-20/SC-13

Tentatively maintained to 0.1 man x year on the SC-13 specifics.

In the order of 4 to 5 FTE in the CCSDS activities.

2 – IMPLEMENTATION ACTIVITIES

2-1 SPACECRAFT UTILIZING SC13 STANDARDS FOR TLM / CMD

All CNES satellites make use of CCSDS / SC13 standards, at least partially.

The new satellite product lines, ISIS and Myriade Evolution, will be compliant with the Space Link and the Space Link Extension standards. All future CNES projects will be SLE compliant on the user side.

2-2 GROUND FACILITIES UTILIZING SC-13 STANDARDS

Implementation of CCSDS / SC13 standards (RF&Modulation, Packet TM&TC, OPM, SLE transfer services) is qualified in all CNES Ground Stations. The provider side is fully available from CNES Networks.

The generic ground segment which is part of both the ISIS and the Myriade Evolution product lines is progressing in development phases, confirming SLE and embarking on Mission Operations core standards. From its availability for future missions will comply to CCSDS / SC13 standards on the user side.

3 – DOCUMENTATION ACTIVITIES

3-1 ADOPTION OF SC13 STANDARDS AT FRANCE NATIONAL LEVEL

Ballots completed since SC-13 (formal) meeting in Saint Petersburg (Spring 2017):

RÉFÉRENCE	TITLE	STATUS	RESPONSE DATE	FRANCE RESPONSE	CCSDS REFERENCE
ISO DIS 18440 (Ed.2)	Space Link Extension -- Internet Protocol for Transfer Services	DIS	22/06/16	Confirmed	**CCSDS 913.1-B-2**
ISO 13541	Space data and information transfer systems - Attitude Data Messages	DIS	25/08/17	Confirmed	**CCSDS 504.0-B-1 Cor. 1**
ISO 17214	Space data and information transfer systems -- Spacecraft onboard interface services -- Time access service	DIS	25/08/17	Confirmed	**CCSDS 872.0-M-1**
ISO 18439	Spacecraft Onboard Interface Services – Space Communication Cross Support – Service Management – Service Specification	DIS	25/08/17	Confirmed	**CCSDS 910.11-B-1**

REFERENCE	TITLE	STATUS	RESPONSE DATE	FRANCE RESPONSE	CCSDS REFERENCE
ISO 18441	Space Link Extension - Application Program Interface for Transfer Services – Core Specification	DIS	25/08/17	Confirmed	**CCSDS 914.0-M-2 Cor. 1**
ISO 20107	Spacecraft Onboard Interface Services – Device Virtualization Service	DIS	25/08/17	Confirmed	**CCSDS 871.2-M-1**
ISO 20211	Spacecraft Onboard Interface Services – Device Access Service	DIS	25/08/17	Confirmed	**CCSDS 871.0-M-1**
ISO 20213	Spacecraft Onboard Interface Services – Message Transfer Service	DIS	25/08/17	Confirmed	**CCSDS 875.0-M-1**
ISO 20216	Spacecraft Onboard Interface Services – Device Data Pooling Service	DIS	25/08/17	Confirmed	**CCSDS 871.1-M-1**
ISO 20217	Spacecraft Onboard Interface Services – File and Packet Store Services	DIS	25/08/17	Confirmed	**CCSDS 873.0-M-1**
ISO 20618	Spacecraft Onboard Interface Services – Device Enumeration Service	DIS	25/08/17	Confirmed	**CCSDS 871.3-M-1**
ISO 21077	Space data and information transfer systems -- Digital motion imagery	DIS	25/08/17	Confirmed	**CCSDS-766.1-B-2**
ISO 22669	Space Link Extension – Return All Frames Service Specification	DIS	25/08/17	Confirmed	**CCSDS 911.1-B-4**
ISO 22670	Space data and information transfer systems - Space link extension (SLE) - Return Channel Frames Service Specification	DIS	25/08/17	Confirmed	**CCSDS 911.2-B-3**
ISO 22671	Space data and information transfer systems -- Space link extension (SLE) -- Forward CLTU Service Specification	DIS	25/08/17	Confirmed	**CCSDS 912.1-B-4**
ISO 22672	Space data and information transfer systems -- Space link extension (SLE) -- Forward Space Packet Service Specification	DIS	25/08/17	Confirmed	**CCSDS 912.3-B-3**
ISO 26143	Space data and information transfer systems - Space link extension (SLE) - Return Operational Control Fields Service Specification	DIS	25/08/17	Confirmed	**CCSDS 911.5-B-3**
ISO N 1616	Space Link Extension – Cross Support Transfer Service – Specification Framework	DIS	25/08/17	Confirmed	**CCSDS 921.1-B-1**
ISO N 1617	Space Link Extension – Cross Support Transfer Service – Monitored Data Service	DIS	25/08/17	Confirmed	**CCSDS 922.1-B-1**

In progress :

RÉFÉRENCE	TITLE	STATUS	PLANNED RESPONSE DATE	CCSDS REFERENCE
ISO 14721	Space data and information transfer systems -- Open archival information system(OAIS) -- Reference model	Systematic Review	28/11/17	**CCSDS 650.0-B-1**
ISO 22641 ed.2	Space data and information transfer systems — TM synchronization and channel coding	Systematic Review	28/11/17	**CCSDS 131.0-B-2**
ISO 26900	Space data and information transfer systems — Orbit data messages	Systematic Review	28/11/17	**CCSDS 502.0-B-2**

3-2 TRANSLATIONS

None in the period

4 – MISCELLANEOUS

4-1 Documents

It is suggested that each time a CCSDS recommendation is updated and a new version is issued, it is submitted at once to ISO for revision, without waiting for a next systematic review. This will allow to avoid that ISO systematic reviews are triggered when CCSDS revisions were already performed within the previous 5 years period and so, there should be no ambiguity on the votes "revise" or "confirm", that otherwise could refer to different versions.

4-2 Liaisons

No report.

4-3 Other

France expresses his warmest thanks to ESA for hosting and supporting the Fall 2017 Working Groups meetings and the CCSDS Management and ISO-TC20-SC13 in Darmstadt.

Respectfully submitted: **Jean-Marc Soula, CNES, French Representative to ISO-TC20-SC13 on behalf of AFNOR - BNAE.**