# FRENCH REPORT to ISO/TC20/SC13 submitted by CNES on behalf of AFNOR Darmstadt, ESOC, November 2015

#### 1 – MANAGEMENT:

#### 1-1 OGANIZATION

No organization change.

### 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 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 meeting in Japan (Spring 2015):

Reference	Title	Status	Date of Response	CNES Response	CCSDS Reference
ISO 18202	Mission operations message abstraction layer	DIS	07/08/15	Approval	CCSDS 521.0-B-2
ISO 20618	Spacecraft onboard interface services – Devices enumeration service	DIS	07/08/15	Approval	CCSDS 871.3-M-1
ISO/ 22642	TC synchronization and channel	DIS	07/08/15	Approval	CCSDS 231.0-B-2

	coding				
ISO 17355	Space data and information transfer systems CCSDS file delivery protocol	Systematic review	15/09/15	Revise	CCSDS 727.0-B-3

## In progress:

ISO Reference	Title	Status	Expected response	CCSDS Reference
ISO 10537	Space data and information transfer systems Encapsulation service	Systematic review	08/12/15	CCSDS 133.1-B-1.
ISO 13527	Space data and information transfer systems XML formatted data unit (XFDU) structure and construction rules	Systematic review	08/12/15	CCSDS 661.0-B-1.
ISO 13537	Space data and information transfer systems Reference architecture for space data systems	Systematic review	08/12/15	CCSDS 311.0-M-1.
ISO 13541	Space data and information transfer systems Attitude data messages	Systematic review	08/12/15	CCSDS 504.0-B-1.
ISO 15893	Space data and information transfer systems Space communications protocol specification (SCPS) Transport protocol (SCPS-TP)	Systematic review	08/12/15	CCSDS 714.0-B-2.
ISO 22647	Space data and information transfer systems Space link identifiers	Systematic review	08/12/15	CCSDS 135.0-B-3

## 3-2 TRANSLATIONS

None in the period

# **4 – MISCELLANEOUS**

4-1 Documents

No report.

4-2 Liaisons

No report.

<u>4-3 Other</u>

France warmly congratulates Eduardo Bergamini for his extended chairmanship of the SC13.

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

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