

# CNES REPORT – ISO/TC20/SC13

## ATHENS – APRIL 2005

### 1 – MANAGEMENT:

#### 1-1 ORGANIZATION

- Creation of a new ISO TC on Space Systems: several teleconferences were attended and support was provided to the French delegate of BNAE to address the Business Plan and to discuss the issue with the French Aeronautics and Space community ; the decision of the French delegation is finally:

a) that France will not support the creation of a dedicated TC on Space, mainly due to the current actions for a strengthening on the Aeronautics and Space industrial and normative activities ;

b) that France recommends that SC-13 and SC-14 work together and identify any possibility of an improvement of their organization within TC-20.

- Translation to French of CCSDS documents:

CNES position is as follows:

a) In the majority of the cases, French translations are not required at the time when CCSDS documents are submitted to ISO TC-20, SC-13. However, it is ISO practice to request a translation to French and CNES will confirm as required, each time a new document is submitted through SC-13 ; such confirmation may be during or in between SC-13 meetings ;

b) Whenever a translation of an already published CCSDS and ISO document becomes available,

- CNES will submit it to CCSDS for publication on the open web site ; maintenance of later evolutions and versions will also be by CNES ;

- The French delegate will propose it to ISO as an official translation to French ; BNAE is the French authority to validate such translations ; SC-13 will be informed of the process but there is no need it is involved.

#### 1-2 AREA OF AGENCY INVOLVEMENT

Global.

#### 1-3 MANPOWER ALLOTTED

Tentatively maintained to 0.1 man x year.

### 2 – IMPLEMENTATION ACTIVITIES

#### 2-1 SPACECRAFT UTILIZING SC13 STANDARDS FOR TLM / CMD

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

Product lines Proteus and Myriades are included for Space Link Standards. The upcoming Pleiades mission will make use of the CCSDS standards and SLE transfer services.

Parasol and Essaim satellites, all belonging to the Myriades series, were launched in Decembre 2004.

## 2-2 GROUND FACILITIES UTILIZING SC-13 STANDARDS

The Provider Gateway for SLE transfer services is currently under qualification tests. This will be used in cross support configurations with other European agencies in 2005.

Implementation of CCSDS standards (RF&Modulation, Packet TM&TC, OPM, SLE transfer services) are in progress (design phase) under an approved project on a global harmonization of CNES ground segments, from multitemission thru product lines (Proteus and Myriades). This project plans for a progressive implementation in the longer term (2005 – 2008); one of the next steps concerns SLE transfer services at ground stations level in a later phase (2006). Other components of relevance in this project include a front end for management of external SLE Management interfaces.

As part of this project, the development of a User Gateway for SLE transfer services was decided and the product should become available by end 2005.

## **3 – DOCUMENTATION ACTIVITIES**

### 3-1 ADOPTION OF SC13 STANDARDS AT NATIONAL LEVEL

Ballot performed since last SC-13 meeting in Toulouse:

- **ISO DIS 22666** Space data and information transfer systems -- AOS (advanced orbiting systems) space data link protocol,
- **ISO DIS 22667** Space data and information transfer systems -- Communication operations Procedure 1
- **ISO DIS 22646 (CCSDS 133.0-B-1)** Space data and information transfer systems - space packet protocol
- **ISO DIS 22645 (CCSDS 232.0-B-1)** Space data and information transfer systems - TM space data link protocol
- **ISO DIS 22664 (CCSDS 232.0-B-1)** Space data and information transfer systems - TC space data links protocol
- **ISO DIS 22641 (CCSDS 131.0-B-1)** Space data and information transfer systems - TM synchronization and channel coding
- **ISO DIS 22642 (CCSDS 231.0-b-1)** Space data and information transfer systems - TC synchronization and channel coding

In progress with a due date of April-June 2005:

- **ISO DIS 20652** Space data and information transfer systems -- Producer-Archive Interface -- Methodology Abstract Standard (document CCSDS 651.0-B1).
- **ISO DIS 22670** Space data and information transfer systems - Space link extension (SLE) - Return – Channel Frames services (document CCSDS 911.2-B-1)

Questions:

1) What is the status on ISO side of the action on the OPM document :

**“CCSDS Secretariat shall forward CCSDS 502.0-B-3, Orbit Data Messages, to ISO for adoption as an ISO Standard”**

2) Why was only one of the following documents submitted to ISO ?

1. **CCSDS 911.1-R-2, Space Link Extension – Return All Frames Service Specification**
2. **CCSDS 911.2-R-2, Space Link Extension – Return Channel Frames Service Specification**
3. **CCSDS 911.5-R-1, Space Link Extension – Return Operational Control Fields Service Specification**

4. CCSDS 912.1-R-2, Space Link Extension – Forward CLTU Service Specification
5. CCSDS 912.3-R-2, Space Link Extension – Forward Space Packet Service Specification

### 3-2 TRANSLATION

None for new documents to be submitted to ISO.