

01 October 2009



To: CCSDS Secretariat
From: IOAG Secretariat
Subject: IOAG-13 Liaison Statement

The Interagency Operations Advisory Group (IOAG) held its 13th annual meeting on 22-24 September, 2009. During this meeting, the delegates of the IOAG received presentations from the Consultative Committee for Space Data Systems (CCSDS) that were provided by its liaisons.

In response to these presentations, the IOAG makes the following observations and requests to the CCSDS:

1. IOAG thanks the CCSDS Spacecraft Monitor and Control Working Group (SM&C) for its presentation of current efforts to develop a top level space mission operations service architecture. The IOAG invites the CCSDS to submit its "Mission Operations Services Concept" Green Book to the IOAG for study by the IOAG agencies, with a view to determining if the scope of the IOAG should be expanded in the future to embrace a potential "IOAG Service Catalog 3" that would cover Mission Operations applications. The IOAG also asks the CCSDS to study whether the current CCSDS work could be expanded to embrace the production of a "Service Oriented Architecture (SOA) for Space Missions."
2. IOAG requests that an update to the channel coding blue book should be processed whenever an LDPC code is ready for publication, in association with its mission profile(s).
3. IOAG asks the CCSDS to assume responsibility for producing a Solar System Internetwork (SSI) Architecture Definition Document in response to the SSI Operations Concept to be delivered by IOAG to CCSDS in May 2010), in time for an IOP-3 that is anticipated not earlier than 2012.
4. As a complement to the IOAG response letter to the CMC dated June 23, 2009, for clarification of the standards to be produced in answer to resolution R 12.9.1, and on the particular subject of the "ancillary services," the IOAG recommends that some new standards be produced by CCSDS according to the time frames indicated in the attached table.

5. The IOAG considers there is a need for a joint meeting with the CMC and proposes that this is organized on the occasion of the Fall 2010 meetings of CCSDS, in London, United Kingdom, during the first week of November.

Attachment

ATTACHMENT TO THE IOAG-13 LIAISON STATEMENT TO THE CMC:

REQUIREMENTS FOR FUTURE STANDARDS

	DESCRIPTION OF SERVICES TO BE CONSIDERED BY THE CMC FOR THE DEVELOPMENT OF FUTURE STANDARDS IN THE DOMAIN OF CROSS SUPPORT	CORRESPONDING RESOLUTION OF IOAG 13, WITH INDICATION OF THE REQUIRED TARGET DATE FOR COMPLETION, WHEREVER APPLICABLE
1	A ground-based space link monitoring cross-support transfer service standard	IOAG resolves to ask the CCSDS to develop a standard for a protocol to transfer space link monitoring data from ground communication assets to their users. The purpose is to exchange a limited set of ground station parameters in cross support operations. The IOAG further resolves that this standard should be available by the end of CY2011.
2	A ground space link control cross-support transfer service standard	IOAG resolves that an online service to control the ground space link is not needed for transfers in cross-support operations and that the service provided by the CSSM standard is estimated to be sufficient.
3	A data relay standard for: a) requesting the acquisition of; and, b) transferring remote orbiter-derived Doppler observables and orbiter trajectory and clock information to support landed vehicle position determination	IOAG resolves that it recognizes the need to acquire and transfer remote orbiter-derived Doppler observables and orbiter trajectory and clock information to support landed vehicle position determination. The IOAG further resolves that this is of medium priority and that availability of a standard is requested by the end of CY2012.
4	A data relay standard for: a) requesting the acquisition of; and, b) transferring remote orbiter-derived open-loop recording and digitization of Entry, Descent and Landing (EDL) signals	IOAG resolves that it recognizes the need to acquire and transfer remote orbiter-derived open-loop recording and digitization of Entry, Descent and Landing (EDL) signals. The IOAG further resolves C that this is of medium priority and that the availability of a standard is

		requested by the end of CY2012.
5	A data relay standard for: a) requesting the acquisition of; and, b) transferring remote orbiter-derived orbiter clock calibration and proximity time correlation data to support landed vehicle time correlation	IOAG resolves that it recognizes the need to request and transfer remote orbiter-derived orbiter clock calibration and proximity time correlation data to support landed vehicle time correlation. The IOAG further resolves that this topic is of moderate importance and needs further engineering assessment. Availability of a standard before the end of CY2014 is not needed.
6	An end-to-end standard for correlating space vehicle clocks and distributing time synchronization information	IOAG recognizes the need to develop a set of standards for correlating space vehicle clocks and distributing time synchronization information. The IOAG resolves that this topic needs further engineering assessment and that various mission scenarios should be identified, possibly with different priority levels for standards development. Availability of a standard before the end of CY 2014 is not needed.
7	A space-based data relay cross-support transfer service standard for monitoring the performance of remote space-space links	IOAG resolves to ask the CCSDS to develop a standard for acquiring and transferring space-to-space link monitoring data in order to exchange a limited set of parameters in cross support operations between, typically, rover and orbiter control centers The IOAG further resolves that this is of medium priority and that the availability of a standard is requested by the end of CY2012.
8	A data relay pass planning service for exchanging, e.g.; orbiter geometrical data slant range; off-pointing angle from antenna boresight; relative velocity of orbiter; orbiter elevation seen from the surface element; AOS & LOS times; etc.	The IOAG resolves to request the CCSDS to define an interface standard for transferring contact planning information concerning TT&C services to be provided by a relay orbiter to remote landed or descending space vehicles, including the interface protocol and parameters required for the contact planning and contact plan generation. . Availability of a standard before the end of CY2014 is not needed.

