

**CMC Draft Minutes
JAXA
Mielparque Hotel
Nagano, Japan
19-21 May 2015**

1. Call to Order – Welcome/Opening Remarks

James Afarin, CMC Chair, called the meeting to order at 0905h and welcomed everyone to Nagano. He thanked Tsutomu Shigeta, Keiko Osakai, Naoko Tobari, and JAXA for hosting the meeting. J. Afarin also thanked the dedication and commitment of the past chair, Mike Kearney, and mentioned a special plaque for him. Phil Liebrecht also recognized the important work that CCSDS is doing for international interoperability. T. Shigeta also welcomed everyone to Nagano.

2. Introduction of Delegates

Introductions followed. Attendees were:

James Afarin (NASA)
Peter Allan (UK Space Agency)
Dmitri Barannikov (FSA)
Erik Barkley (NASA) via WebEx
Rick Barton (NASA) via WebEx
Eduardo Bergamini (INPE)
Marc Blanchet (SANA/Viagenie) via WebEx
Yonghui Huang (CNSA)
Phil Liebrecht (NASA)
Juan Miro (ESA)
Brian Oliver (Secretariat) via WebEx
Keiko Osakai (JAXA)
Nestor Peccia (ESA)
Osvaldo Peinado (DLR)
Martin Pilgram (DLR)
Michael Schmidt (ESA)
Keith Scott (NASA) via WebEx
Peter Shames (NASA) via WebEx
Tsutomu Shigeta (JAXA)
Jean-Marc Soula (CNES)
Wallace Tai (NASA)
Naoko Tobari (JAXA)
Nick Tongson (Secretariat)
Rusheng Zhang (CNSA)

3. Agenda Review and Approval ([CMC Agenda Nagano - May2015v2](#))

The group reviewed and approved the draft agenda [there were tentative plans to move items around based on the arrival of Michael Schmidt for his report].

4. Discussion of CMC Minutes from Prior Meetings

Nick Tongson informed the group that the draft minutes from the March 2015 midterm telecon has been approved via CMC poll.

5. CESG Area Reports, Summary from Pasadena ([CESG-Report-to-CMC-Spring15-Final](#))

5.1 CESG Chair Introduction (slides 1-15)

Nestor Peccia provided the CESG report and noted the good meetings of the Working Groups in Pasadena in March but also mentioned the passing of Lindolfo Martinez. He noted the different changes in CESG leadership in terms of Area Directors and Deputy Area Directors. In addition, N. Peccia provided the current status of various activities

and noted the strong interest of KARI (Korea) in increasing their participation in the work of CCSDS (possibly switching from Observer to Member status).

There was a suggestion to discuss the technical WG meeting days (4 days vs 5 days) during the resources topic.

5.2 SOIS Area (slides 27-38)

Rick Barton provided the report on behalf of Martin Suess. He informed the CMC that the new charter for the Subnetwork WG is still being developed with the hope that it will be done by the November 2015 meeting.

5.3 SE Area (slides 39-54)

Peter Shames provided his report. There was also a discussion on the SANA Steering Group membership due to the retirement of some members. P. Shames mentioned that duplication of spacecraft IDs is being dealt with by SANA and more information is available in the SANA report. He also added that private spacecraft IDs is allowed by SANA but is not part of official SANA policy. It was agreed that the topic of private spacecraft IDs should be discussed further by the SANA Steering Group.

P. Shames informed Eduardo Bergamini that there is currently no Memorandum of Agreement between ISO/TC 20/SC 13 and SC 14 regarding the Reference Architecture for Space Data Systems (RASDS) project.

The CMC then discussed the RASDS project and the resources needed to complete it, including reviewing the cartoons that was presented. It was suggested that the logistics for creating the Reference Architecture Working Group should be initiated but only include in the charter of the working group, for now, the first sub-bullet of slide 47 in the CESG report to the CMC (i.e. Approach: Phased, initial cartoon version based on SCCS-ADD, final more complete version, after other work is done).

AI: Peter Shames was requested to provide additional details (a step-by-step plan) of the RASDS Style PPT Cartoons in slide 47 of the CESG report to the CMC (with proposed start and end dates, deliverables, the experts needed, clarification of where the funding is needed [SEA, MOIMS, SOIS]) so that the CMC members can support it if and when there are additional resources available. He was also requested to provide one example of a cartoon combining MOIMS, SOIS, and CSS. [CMC-A-2015-05-01]

AI: After the completion of the action item above, the CMC members are requested to approve or disapprove the RASDS Style PPT Cartoons project by 15 July 2015 but indicate how much resources they are willing to deploy and for which calendar year when they vote in the poll. [CMC-A-2015-05-02]

5.4 MOIMS Area (slides 75-92)

N. Peccia provided the report on behalf of Mario Merri. The CMC discussed some resources topics, including other agency contributions to the work, and this will be deferred to the resources topic.

5.5 CSS Area (slides 55-74)

E. Barkley provided his report. He had concerns about a potential delay in the simple schedule services project because of a new policy in registries/SANA. J.-M. Soula asked about offline radiometric project and E. Barkley indicated that this will be part of the generic file transfer project. J.-M. Soula was also a little concerned about the parallel projects in CSSM and this will be discussed further under the resources topic.

5.6 SLS Area (slides 93-118)

N. Peccia provided the report on behalf of Gian Paolo Calzolari. The CMC discussed the Unified Space Link Protocol (USLP) and the time it takes to transition to this new technology.

5.7 SIS Area (slides 17-26)

Keith Scott provided his report. He added that the completion of the Bundle Security Protocol standard will meet the needs of future missions. He also informed the group that some of the projects in his charts need to be placed in the CWE Framework.

5.8 Summary/Meeting Statistics

See CESG Chair Introduction.

5.9 Items Brought to the Attention of the CMC (slides 119-126)

N. Peccia provided a report from the CalTech/Pasadena meeting.

N. Peccia encouraged agencies that usually monitor projects to participate in a leadership position for those WGs that need a Deputy Chair. There was general agreement that a WG Deputy Chair would be helpful if someone can be identified.

6. Resources Topics ([CESG-Report-Schedule - Resources](#))

N. Peccia provided an update. He informed the CMC of the three categories for a project: Approved, Pending, Draft. There was a suggestion that it might be good to compile the infusion table of standards to agency missions to determine who are the main users of the documents (i.e. who benefits the most). N. Peccia encouraged other agencies (in addition to NASA, ESA, CNES, DLR) to contribute in projects with missing resources.

6.1 CESG report on resources status (projects with issues)

N. Peccia identified the projects with missing resources, especially those that have an immediate need. J. Miro suggested taking advantage of other resources within a country, outside the standardization budgets of the respective agencies, (e.g., research and academic resources), to help in developing prototypes. There was also a suggestion to encourage CCSDS Observer Agencies to contribute in projects that have missing resources.

AI: The Secretariat was instructed to circulate a message to the CCSDS Observer Agencies and Associates to solicit assistance in developing prototypes (especially a second prototype) for projects that lack them. A list of projects with missing prototypes will accompany this message. [CMC-A-2015-05-08]

AI: The CMC members were instructed to consider their own or other resources (universities, crowd-sourcing, research budgets) to develop prototypes for projects that lack them, taking into account the list developed by Nestor (14 projects that lack resources). [CMC-A-2015-05-09]

6.2 Roundtable discussion of Resources process

The CMC discussed the historical approval process of projects with missing resources and agreed to maintain the current situation of approving a project despite one of two prototypes missing (i.e. can be approved with only a book editor and one prototype but strongly encourage the working group to identify a second prototype). The special situation of 5-year reviews was also discussed in terms of creating a new working group with sufficient resources to develop the revision of a document.

6.3 Schedule of projects as impacting resources (future work, etc.)

The CMC discussed the prioritization of approved projects with missing resources and agreed on the top three projects:

AI: The CMC members were requested to consider providing resources for prototyping of projects taking into account the list developed by Nestor, and specifically concentrating on the three projects identified as top priorities: Symmetric Key Management (Prototype 1; 3 WM), DEDSL XML Schema (Prototype 2; 2 WM), and CSS File Transfer (Prototype 1 and 2; 4 WM total). [CMC-A-2015-05-10]

It was also noted that a missing prototype for a project has always been identified before publication and that a fallback, if no second prototype is identified, is the publication of an Orange Book (an Orange Book can be converted to a Blue Book in the future if an agency or agencies can provide prototypes).

The CMC also discussed if other agencies should vote negative on a project if they have no interest or resources. It was suggested that agencies can vote on a project with conditions so that it can be discussed at a future CMC meeting. The CMC also agreed that if an agency commits to a project, it should follow through until the end.

7. IOAG Presentation ([IOAG Report to CCSDS May 2015](#))

Michael Schmidt provided his report. Based on the report and ensuing discussions on the various topics, the following action items were developed:

AI: The Optical Communications Working Group was requested to answer and provide a clear statement on the proposed IOAG solution needed for the Moon Scenario (Wavelength):

- No issue if this can be handled as Deep Space scenario
- This was already demonstrated by Lunar Laser Communication Demonstration

[CMC-A-2015-05-03]

AI: The Cross Support Services Area was requested to consider using Terrestrial Generic File Transfer Service along with the CFDP File Structure to replace the following two standards: CSTS Forward File Service (CFFS) and CSTS Return File Service (CRFS). [CMC-A-2015-05-04]

AI: The Cross Support Services Area was requested to consider using Terrestrial Generic File Transfer Service along with the Tracking Data Message (TDM) to potentially eliminate the need for a new CSTS Offline Radiometric Service standard. [CMC-A-2015-05-05]

Regarding the bundle protocol network management, the IOAG will need to redefine priorities and provide a date. There was also a discussion on inviting KARI (Korea) to participate in this activity, specifically the CMC meeting in Darmstadt in November 2015.

AI: The Secretariat was instructed to invite the Korea Aerospace Research Institute (KARI) to become a member agency of CCSDS and to specifically invite them to attend the Fall 2015 CMC meeting in Darmstadt. [CMC-A-2015-05-06]

The CMC also discussed the importance of the telerobotics activities in CCSDS and to inform the IOAG of these activities because of the importance of this topic in the IOAG as well.

AI: The Telerobotics Working Group was instructed to provide regular updates of its current activities (providing sufficient details on the projects) to the IOAG Liaison (CESG Chair) so that CCSDS activities and IOAG interests in this area are coordinated/synchronized. [CMC-A-2015-05-07]

8. IOAG and ICPA Update (slide 127 of the CESG Report to the CMC)

N. Peccia provided the update. It was also suggested that a combined CMC-IOAG meeting would be a good idea in the near future.

9. Update on CCSDS Future Strategy/Strategic Roadmap ([CCSDS Strategy Discussion 150519r1](#))

J. Miro provided an update. He provided some clarification of his final chart regarding the interaction of the various CCSDS working groups. N. Peccia explained that some of the area overlaps have been resolved but others still need to be addressed.

10. Secretariat Report

10.1 Action Items Status ([Open Action Items - CMC - Mar2015v3](#))

The CMC reviewed the open Action Items. The following decisions were reached on these items:

- Action Items CMC-A-2012-10-01, CMC-A-2014-04-02, CMC-A-2014-11-02, CMC-A-2014-11-10, CMC-A-2014-11-19, CMC-A-2014-11-20 were all closed
- CMC-A-2014-11-11 will remain open until mid-July 2015
- CMC-A-2014-11-22 due date: Fall 2015 CMC meeting

10.2 Document Status Report ([CCSDS Document Status \(9\)](#) and [Document Editor Queue](#))

The CMC reviewed the report as provided by Tom Gannett. N. Peccia noted that this report includes the documents that are due for systematic review. He also noted the document that provides the projects on the editorial priority list.

10.3 Resolution Report ([2015-05 Summary of CMC Polls since November 2014 Meeting in London](#))

Secretariat provided the report on the results of the CMC polls since the Fall 2014 meeting.

10.4 WG and Project Overview ([Project Report 2015-05 - Sorted by Largest Change](#) and [Project Report 2015-05 - Sorted by WG](#))

Secretariat provided the report, as submitted by Brian Oliver.

10.5 IT Project Status ([IT Update CMC Meeting Japan](#))

B. Oliver provided a report on the status of certain IT projects including the IT priority list. He informed the CMC that the target for initial launch of the RIDS system (using Sharepoint) is Fall 2015 and he will provide an update in Darmstadt..

AI: The Secretariat IT Support Team was requested to provide proposed start and end dates for the IT project priorities to the Secretariat and CESG Chair. [CMC-A-2015-05-14]

11. SANA and Registries Report ([20150520 nagano sana cmc](#))

M. Blanchet provided his report. M. Pilgram asked about the possibility of adding private spacecraft ID in the SANA procedures and this was addressed in the SANA report.

P. Shames also commented that there is still some disconnect between what's on the SANA and the CCSDS website. So there is still more work needed in order to get a single authoritative set of information that everyone can reference.

12. Ideas to Improve CMC Meeting

J. Afarin asked the group if there are any improvements to the CMC processes that can make them more efficient. It was suggested that it might be good to elevate the discussion so that everyone has an overall picture of future projects. The CMC also discussed the bottoms-up versus the top-down approach in terms of project development.

J. Afarin suggested that the CMC discuss future projects during its meetings and try to reach agreement on how to move forward in terms of resources. It was also suggested that CMC approval of projects should be done at meetings instead of polls.

AI: The Secretariat was instructed to add in the Fall 2015 CMC meeting agenda an item on the approval of proposed new projects, taking into account, for prioritization purposes, the information provided by Nestor Peccia in his CESG report to the CMC on the project schedule summary and the future projects summary. [CMC-A-2015-05-11]

The CMC then discussed on how to best review future projects and how they would correlate with agency resources and priorities.

13. Meeting Planning ([Meeting Planning May2015 v1](#))

13.1 Fall 2015 Tech Plenary & CMC (ESA/Darmstadt)

N. Peccia informed the CMC that the meeting venue has been confirmed and the contract signed. The CESG and CMC meetings will be held at ESOC.

D. Barannikov will inform J. Miro if an interpreter is needed for the Darmstadt meeting (Marina or someone from TsNIIMash).

AI: Nestor Peccia was requested to provide the Secretariat with a list of hotels and other relevant meeting logistics for the Fall 2015 technical and management meetings in Darmstadt, Germany so that this information can be uploaded to the CCSDS website. [CMC-A-2015-05-13]

13.2 Spring 2016 Tech Plenary (NASA/USA-Cleveland)

J. Afarin informed the CMC that NASA has finalized the meeting location in Cleveland (Westin Hotel). He informed the group that there is a subway/train from the airport to a couple of blocks from the hotel.

13.3 Spring 2016 CMC (INPE/Brazil)

The CMC tentatively agreed to meet 26-28 April 2016 in Brazil. E. Bergamini will provide details at the November 2015 Darmstadt meeting.

13.4 Fall 2016 Tech Plenary & CMC (ASI/Italy) ([Fall 2016 CCSDS Meetings - Draft Planning Note](#))

M. Calabrese provided some preliminary logistical information about the technical and management meetings in Rome. The CMC agreed to meet from 31 October – 4 November 2016 for the technical meetings and 7-10 November 2016 for the management meetings. The technical meetings will be 5 days with the CESG meeting on Monday, 7 November.

13.5 Spring 2017 Tech Plenary (NASA/USA-Houston)

J. Afarin informed the CMC that there are tentative plans to hold the 2017 technical meetings in Houston (University of Houston - downtown), hosted by JSC. This meeting will most likely be during spring break.

13.6 Spring 2017 CMC (FSA/Russia)

D. Barannikov informed the CMC that he is proposing St. Petersburg, Russia for the Spring 2017 CMC meeting around late April/early May but his management prefers Moscow. The CMC expects official confirmation from FSA, through D. Barannikov, by the Fall 2015 CMC meeting in Darmstadt or the Spring 2016 CMC meeting in INPE/Brazil.

13.7 Schedule for next CMC mid-term telecon

The CMC tentatively agreed to hold the midterm telecon on 3 September 2015 (1200 or 1300 UTC).

14. Overflow Topics

No overflow items were identified.

15. Agency Reports

The CMC discussed the possibility of modifying the Fall 2015 CMC meeting agenda to take into account the revision of the agency report format.

AI: The Secretariat was instructed to modify the Fall 2015 CMC meeting agenda to have a partial agency report that deals with agency priorities (on new and draft projects) at the beginning of the agenda, while the remaining parts of the report on other agency activities will be presented towards the end of the agenda, as in past meetings. Furthermore, it was agreed that agency activities should be reported once a year. [CMC-A-2015-05-12]

15.1 ASI

No report was submitted.

15.2 CNES

J.-M. Soula provided his report ([CNES report to the CMC Nagano May 2015](#)).

15.3 CNSA

R. Zhang provided his report ([CNSA Report to CMC 2015 Spring](#)).

15.4 CSA

No report was submitted.

15.5 DLR

O. Peinado provided his report ([CMC DLR Report-may-2015](#)).

15.6 ESA

J. Miro provided his report ([ESA Agency Report CMC Spring 2015](#)). He plans to send Laura Stafford a more extensive article on Dr. Horst Kummer who recently passed away. He informed the CMC that the future EUCLID mission will use CFDP and also emphasized the importance of the Reference Architecture project.

W. Tai noted that there will be numerous uncoordinated lunar missions during the 5-year period from 2016-2021 and that CCSDS should be prepared in case there are standards needed for these missions. Some cross-support and interoperability might be needed to benefit these lunar missions.

The CMC then discussed how CCSDS standards are considered in various missions for some agencies. It was also suggested that CMC members should review the Cross Support Architecture document to get a general idea of the overlap issues.

15.7 FSA

D. Barannikov, on behalf of V. Zaichko, provided his report ([FSA CMC Agency Report](#)). He informed the CMC that there might be more participation in the future, especially in prototyping.

15.8 INPE

E. Bergamini provided his report ([INPE-Report.to.CCSDS-CMC.Meeting.Nagano.JP.19-21.May.2015](#)).

15.9 JAXA

T. Shigeta provided his report ([JAXA input to Nagano CMC in May 2015](#)). He informed the Secretariat that he will forward to the CCSDS IT Support Team the new JAXA rapporteurs.

15.10 NASA

J. Afarin provided his report ([NASA News - CMC Agency Report May 2015-1](#)).

15.11 UK Space Agency

P. Allan provided his report ([UK Space Agency report to CMC - Spring 2015](#)). He informed the CMC that he will try to get the UK Associates more involved in the CCSDS document review process.

J. Afarin, on behalf of the CMC, once again thanked JAXA for hosting the management meetings in Nagano.

CMC-R-2015-05-01

The CMC thanks JAXA for hosting the Spring 2015 management meetings in Nagano.

AI: The Secretariat was instructed to provide letters of thanks to NASA and JAXA for hosting the technical and management meetings in Pasadena, California, USA and Nagano, Japan, respectively. [CMC-A-2015-05-15]

16. CMC Review of Resolutions and Action Items ([Action Items - NaganoCMC - May2015](#))

The CMC reviewed the resolutions and action items and approved them with revisions.

The CMC agreed to add the following agenda items for the midterm telecon:

- Finding alternative resources to support CCSDS projects
- Coordination of future lunar missions by various agencies

There was also agreement to make future CMC meetings three full days and business casual in terms of a dress code.

The CMC agreed that the online Strategic Plan should be placed on the first page of the CCSDS website as a link to make it visible to the public but to confirm that only certain parts are publicly accessible.

17. Adjourn

There being no other business, the meeting was adjourned at 1420h on 21 May 2015.