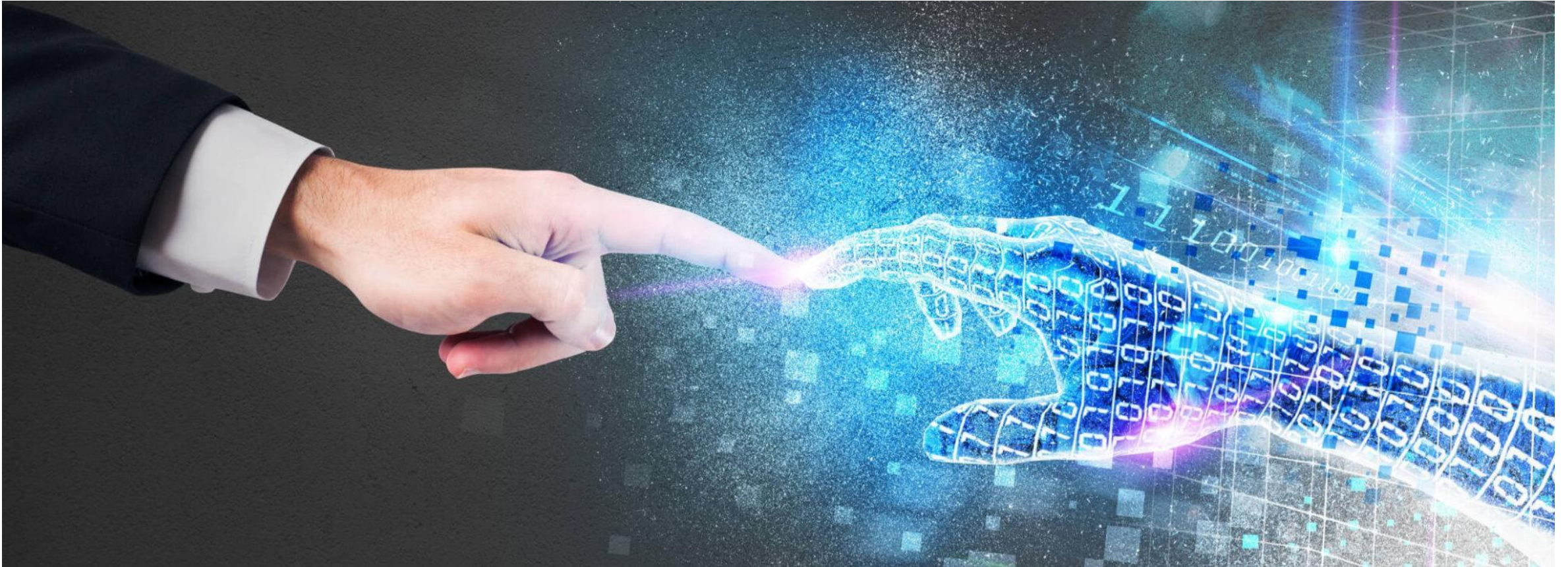


# CCSDS SPRING 2024 TECHNICAL PLENARY

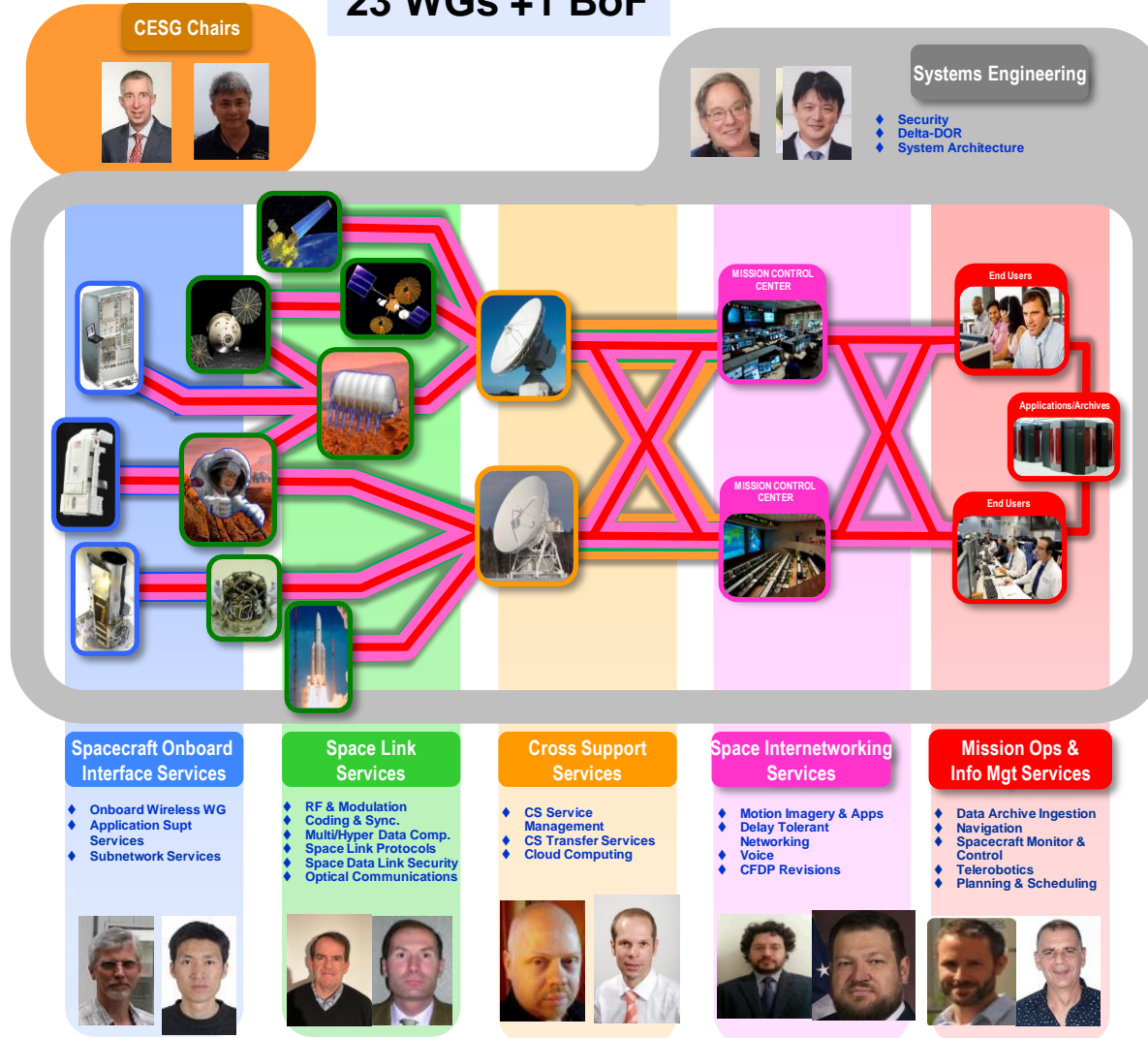


# AGENDA

Time (UTC)	Duration	Topic	Presenter
09:30-09:45	15 minutes	Introduction	Sami Asmar - NASA/JPL – CCSDS Chair Klaus-Juergen Schultz – CCSDS Engineering Steering Group (CESG) Chair
09:45-09:50	5 minutes	SEA Workplan	Peter Shames – Systems Engineering Area (SEA) Director
09:50-10:00	10 minutes	MOIMS Workplan	Daniel Fisher – Mission Operations and Information Management Services (MOIMS) Director
10:00-10:05	5 minutes	CSS Workplan	Erik Barkley – Cross Support Services (CSS) Area Director
10:05-10:10	5 minutes	SOIS Workplan	Jonathan Wilmot – Spacecraft Onboard Interface Service (SOIS) Area Director
10:10-10:15	5 minutes	SLS Workplan	Ignacio Aguilar – Space Link Services (SLS) Area Director
10:15-10:20	5 minutes	SIS Workplan	Ivica Ristovski– Space Internetworking Services (SIS) Deputy Area Director
10:20-10:30	10 minutes	Adjournment	Klaus-Juergen Schultz – CESG Chair Sami Asmar- NASA/JPL – CCSDS Chair Amber Massaquoi - NASA – CCSDS Secretariat

# Members of the CESG

6 Areas  
23 WGs +1 BoF



**CESG Chair**  
*Deputy*

**Klaus-Juergen Schulz**  
**Timothy Pham**

**SEA Area Director**  
*Deputy*

**Peter M. Shames**  
**Hiroshi Takeuchi**

**MOIMS Area Director**  
*Deputy*

**Daniel Fischer**  
**Marc Duhaze**

**CSS Area Director**  
*Deputy*

**Erik Barkley**  
**Holger Dreihahn**

**SLS Area Director**  
*Deputy*

**Ignacio Aguilar Sanchez**  
**Gilles Moury**

**SIS Area Director**  
*Deputy*

**Tomaso de Cola**  
**'Vinny' Ivica Ristovski**

**SOIS Area Director**  
*Deputy*

**Jonathan Wilmot**  
**Xiongwen He**

## Blue Books – Recommended Standards

- **CCSDS 521.0-B-3 : Mission Operations Message Abstraction Layer (March 2024)**
- **CCSDS 504.0-B-2 : Attitude Data Messages (January 2024)**

## Magenta Books – Recommended Practices

- **CCSDS 876.1-M-1 : Spacecraft Onboard Interface Services-Specification for Dictionary of Terms for Electronic Data Sheets (March 2024)**
- **CCSDS 902.13-M-1 Cor. 1 : Technical Corrigendum 1 to CCSDS 902.13-M-1, Abstract Event Definition Issued February 2021 (February 2024)**
- **CCSDS 350.8-M-3 : Information Security Glossary of Terms (February 2024)**
- **CCSDS 354.0-M-1 : Symmetric Key Management (December 2023)**

## Orange Books

## Green Books – Informational Reports

- **CCSDS 140.1-G-2 : Real-Time Weather and Atmospheric Characterization Data (April 2024)**
- **CCSDS 870.0-G-1 : Electronic Data Sheets and Dictionary of Terms for Onboard Devices and Components (March 2024)**
- **CCSDS 350.5-G-2 : Space Data Link Security Protocol-Summary of Concept and Rationale (Jan 2024)**

## Yellow Books

- -

# CMC Poll Statistics since CCSDS Fall Meetings 2023

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## Approval to publish:

- **CCSDS 140.1-G-2, Real-Time Weather and Atmospheric Characterization Data (Green Book, Issue 2)**
- **CCSDS 521.0-B-3, Mission Operations Message Abstraction Layer (Blue Book, Issue 3)**
- **CCSDS 870.0-G-1, Electronic Data Sheets and Dictionary of Terms for Onboard Devices and Components (Green Book, Issue 1)**
- **CCSDS 876.1-M-1, Spacecraft Onboard Interface Services—Specification for Dictionary of Terms for Electronic Data Sheets (Magenta Book, Issue 1)**
- **CCSDS 350.8-M-3, Information Security Glossary of Terms (Magenta Book, Issue 3)**
- **CCSDS 901.3-M-1, Functional Resource Model (Magenta Book, Issue 1)**
- **CCSDS 902.13-M-1 Cor. 1, Technical Corrigendum 1 to CCSDS 902.13-M-1, Issued February 2021**
- **CCSDS 350.5-G-2, Space Data Link Security Protocol—Summary of Concept and Rationale (Green Book, Issue 2)**
- **CCSDS 504.0-B-2, Attitude Data Messages (Blue Book, Issue 2)**
- **CCSDS 354.0-M-1, Symmetric Key Management (Magenta Book, Issue 1)**

## Agency Reviews:

- **CCSDS 508.0-P-1.1, Conjunction Data Message (Pink Book, Issue 1.1) for CCSDS Agency review**
- **CCSDS 506.2-R-1, Delta-DOR Architect ural Guidelines (Red Book, Issue 1) for CCSDS Agency review**

# CMC Poll Statistics since CCSDS Fall Meetings 2023

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## Approval of new Projects

### New Projects of the SEA Area

- CMC-P-2024-03-001 New 1.02 Security Working Group Project – Magenta Book
- CMC-P-2024-03-011 New 1.02 Security Working Group Project – Magenta Book

### New Projects of the MOIMS Area

- CMC-P-2024-03-010 New 4.03 Onboard Wireless Working Group Project – Green Book
- CMC-P-2023-12-003 New 2.02 Navigation Working Group Project – Blue Book

### New Projects of the SLS Area

- CMC-P-2024-03-008 New 5.09 Space Data Link Security Working Group Project – Blue Book
- CMC-P-2024-03-009 New 5.04 Space Link Protocols Working Group Projects – Blue Book

### New Projects of the SIS Area

- CMC-P-2024-03-007 New 6.09 Delay Tolerant Networking Working Group Projects - Orange

# CMC Poll Statistics since CCSDS Fall Meetings 2023

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## New Appointments:

- **SPACE INTERNETWORKING SERVICES AREA (SIS) Deputy Area Director - 'Vinny' Ivica Ristovski**

## Request for Nominations:

# CESG Topics Since Fall Meetings 2023

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## 1. Lunar Communication:

- **Comment to LunaNet Interoperability specification V5 (30 November 2023) based on Technical discussions in Working Groups, Areas and CESG.**

## 2. Lunar Interoperability Forum :

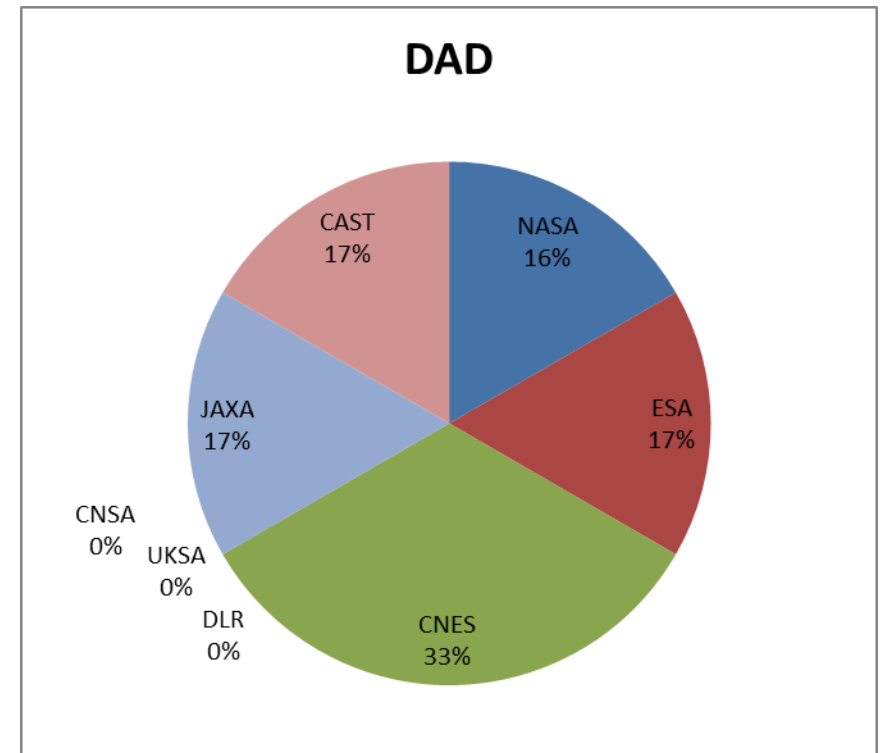
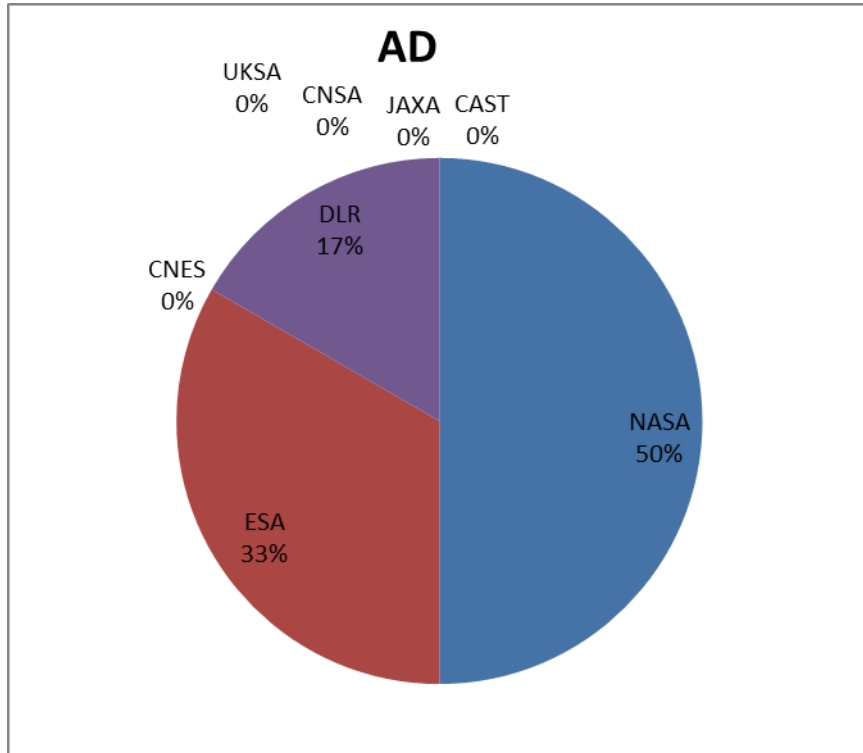
- **Preparation for event on 07 May 2024 between projects, standardisation community and industry/academia.**



# CCSDS Resources

				NASA						ESA						CNES						DLR						OTHER										
Area	WG	C	Co	BB	P1	P2	GB	MB	OB	BB	P1	P2	P3	GB	MB	OB	BB	P1	P2	P3	GB	MB	OB	BB	P1	P2	GB	MB	OB	BB	P1	P2	GB	MB	OB			
SEA	SA	NASA						2																														
SEA	Security	NASA	ESA		1			2						1	1				1																			
SEA	Time	NASA	ESA				1																															
SEA	D-DOR	ESA	NASA			1		2		1	1																										P3=JAXA	
MOIMS	DAI	UKSA	NASA		1			2				1										1				1						1		2			MBs,GB,BB=UKSA	
MOIMS	NAV	NASA	ESA	3	4						1	3					1	1							1					1		2					BB, P2=UKSA, other	
MOIMS	SM&C	ESA	NASA			1	1			3	3	1		1			1	1	1							1		1									P2=DLR, MB=DLR	
MOIMS	MP&S	ESA	CNES							1	1															1											P2=DLR	
CSS	SM	NASA	ESA	1		1				1	1	1	1		1									1	2	1											P2=DLR, P1=DLR	
CSS	CSTS	ESA		3	1			1		1		1																										
SOIS	APP	NASA	UKSA						1																								1	1			MB=AFRL (USA), OBs=NASA, GB=UKSA	
SOIS	WIR	NASA	FSA	1	1				1															1							2					OB=NASA, P2=CSA (1) and JAXA (1), P1=DLR		
SOIS	SNW	NASA	ESA					5																														
SLS	RFM	ESA	NASA			1				1	1																											
SLS	C&S	ESA	NASA	1	1	2				2	2	1																										
SLS	MHDC	NASA	ESA	1	1	2				1	1			1						2																		P3=CNES
SLS	SLP	NASA	UKSA	4	2		2	1				1																				1					P2=UKSA	
SLS	SDLS	CNES	NASA				1																															
SLS	OPT	NASA	ESA	1	1							3		1										2						1								BB=DLR
SIS	MIA	NASA	DLR	1		1	2																	1														P1=DLR
SIS	DTN	NASA	JAXA	4	2	1	2		1		1	1				1								1	1			1		1								P1=JAXA
SIS	VOICE	DLR	FSA																																			
SIS	CFDP	ESA	UKSA							1					1																							
				20	15	10	9	15	3	12	12	13	1	4	3	1	2	2	2	2	0	1	1	7	4	0	1	1	3	1	5	2	3	0	155			
				72 46.45%						46 29.68%						9 5.81%						14 9.03%																
				155																														CNSA, UKSA, AFRL, FSA, Japan, JAXA, NASA				

# Area Directors / Area Directors Overview



	AD	DAD
<b>NASA</b>	<b>3</b>	<b>1</b>
<b>ESA</b>	<b>2</b>	<b>1</b>
<b>CNES</b>		<b>2</b>
<b>DLR</b>	<b>1</b>	
<b>UKSA</b>		
<b>CNSA</b>		
<b>JAXA</b>		<b>1</b>
<b>CAST</b>		<b>1</b>
<b>Total</b>	<b>6</b>	<b>6</b>

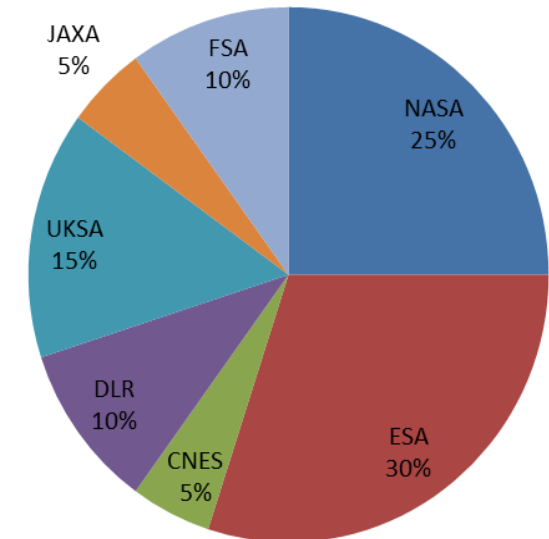
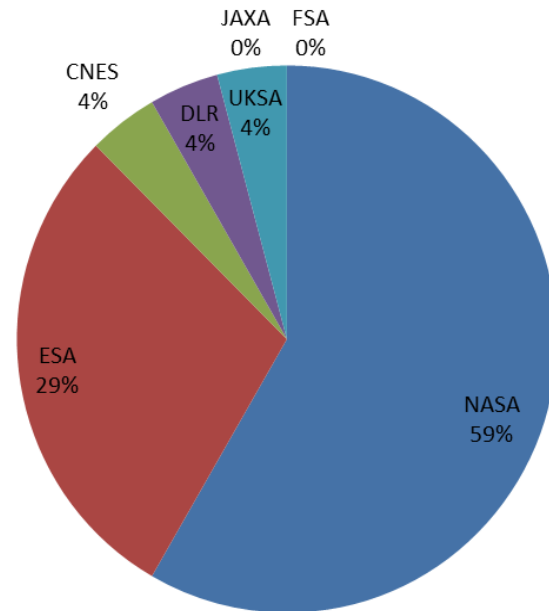
# WG Chair / Deputy Chair Overview

Area	WG	C	Co
SEA	SA	NASA	0
SEA	Security	NASA	ESA
SEA	Time	ESA	0
SEA	D-DOR	ESA	NASA
MOIMS	DAI	UKSA	NASA
MOIMS	NAV	NASA	ESA
MOIMS	SM&C	ESA	NASA
MOIMS	MP&S	ESA	CNES
CSS	SM	NASA	DLR
CSS	CSTS	ESA	0
CSS	Cloud	NASA	0
SOIS	APP	NASA	UKSA
SOIS	WIR	NASA	FSA
SOIS	SNW	NASA	ESA
SLS	RFM	NASA	ESA
SLS	C&S	ESA	NASA
SLS	MHDC	NASA	ESA
SLS	SLP	NASA	UKSA
SLS	SDLS	CNES	NASA
SLS	OPT	NASA	ESA
SIS	MIA	NASA	DLR
SIS	DTN	NASA	JAXA
SIS	VOICE	DLR	FSA
SIS	CFDP	ESA	UKSA

	WG Chair	WG Deputy Chair
<b>NASA</b>	14	5
<b>ESA</b>	7	6
<b>CNES</b>	1	1
<b>DLR</b>	1	2
<b>UKSA</b>	1	3
<b>JAXA</b>	0	1
<b>FSA</b>	0	2
<b>Total</b>	24	20

**WG CHAIR**

**WG DEPUTY CHAIR**



# CCSDS Opening Plenary Spring 2024

## Systems Engineering Area (SEA)

**Peter Shames, Area Director**  
**Hiroshi Takeuchi, Deputy Area Director**

## Security Working Group

- **Plans**
  - On-going work on Key Management GB, DTN/BPsec, and Intergov Cloud Certificate Authority (IGCA). Progress on new work items for Secure SW Engineering and new Space ATT&CK framework. New Deputy WG Chair.
  - Problems / Issues: Design of security architecture for DTN multi-mission space deployments needs attention for SSI Stage 2(a/b).

## Systems Architecture Working Group

- **Plans**
  - RASDS++ draft, with integrated TC20/SC14 revisions, new ontology & representation views has been sent to Chief Technical Editor. External review with Agencies is next, including Systems Architecture experts.
  - SCCS-ARD revisions nearly complete, both ABA and SSI now quite well in hand. New, more compact, tabular format by Nodes types. New standards, including optical comm, USLP, SM, and many other revised documents included.
- **Problems / Issues:** We have a coherent group but very limited resources. NASA is the only agency actively supporting this CCSDS-wide Architecture work.

## Delta-DOR Working Group

- **Plans**
  - MB on Architecture is under Agency Review. Raw Data Exchange File BB is under AD review. Work continues on Operations MB update. About to start GB revision. Considering updates to new Quasar flux database, as part of upcoming revision of DDOR Quasar catalogue MB.
  - PN DOR work: The related testing and YB reports have been generated, as required for the next RFM update.
- **Problems / Issues:** Small but effective working group.

## Time Management Working Group

- **Plans**
  - Working group has produced GB, at Tech Writer. Time Code Formats BB revised, updated and submitted to AD. Progress on the new project BB for time transfer, clock correlation, clock synchronization. Active participation by five agencies. New WG Chair, Deputy position is open.
- **Problems / Issues**
  - The LunaNet CPNT work, and other IOAG network requirements, are more extensive than the new BB, it may not be ready in time to be useful.

## SANA and SANA Steering Group (SSG)

- **Plans**
  - BETA website incorporating ISO TC20/SC14 terms has been updated, being evaluated by SC14. Many new process and feature improvements, increased ease of use.
- **Problems / Issues**
  - AOS SCIDs are now all used. No more identical S & X band SCIDs are available. Agency HOD must assign Agency Representation (AR) to update their agency data in “Enterprise” registries. Service Site and Aperture (SS&A) registry access supports direct AR updates to apertures.

# CCSDS Opening Plenary Spring 2024

## Mission Operations and Information Management Area (MOIMS)

**Daniel Fischer**

**29th April 2024**

- **MOIMS Dep. AD – Candidate identified**

- **Data Archive Interoperability WG (DAI)**

- CCSDS → ISO process is working fine
- **Issues: None, Good progress**
- **MB: 650.0 Open Archival Information System (OAIS): 5y revision** Awaiting publication by CCSDS and ISO
- **MB: 652.0 Audit and Certification of Trustworthy Digital Repositories: 5y revision** Awaiting publication by CCSDS and ISO
- **MB: 653.0 Information Preparation to Enable Long Term Use (IPELTU)** Awaiting publication by CCSDS and ISO
- **MB: 652.1 Requirements for Bodies Providing Audit and Certification of Trustworthy Digital Repository: 5y revision** Awaiting publication by CCSDS and ISO
- **MB: 671.0 Open Archive Information Systems Interoperability Framework (OAIS-IF) Architecture Description** Drafting
- **BB: OAIS-IF Core Specification** Drafting
- **GB: OAIS-IF Rationale, Scenarios and Requirements** Drafting

- **Mission Planning & Scheduling WG (MP&S)**

- **Issues: No deputy chair! , Good progress**
- **BB: 529.1 Mission Planning and Scheduling Services (ESA, DLR)** AR ongoing, prototyping ongoing
- **MB: 529.2 Mission Planning and Scheduling Information Model** New project
- **GB: 529.0 Mission Planning and Scheduling (Issue 2): 5y revision** New project



## ● Navigation WG (NAV)

- **Issues: None, Good progress**
- **Specific discussions: Potential LunaNet standardisation support**
- **BB: 503.0 Tracking Data Message (TDM - NASA, ESA): 5y revision** P-2.0.2 in preparation, ready for review soon
- **BB: 504.0 Attitude Data Message (ADM - CNES, ESA): 5y revision** Blue Book 2.0 Published Jan 2024
- **BB: 505.0 Navigation Data Message XML Specs (NDM - no prototype): 5y revision** Version 4 AR in progress
- **BB: 507.0 Navigation Events Message (NEM – CNES, ESA)** White Book 1.0 Drafting in progress
- **BB: 508.0 Conjunction Data Message (CDM): 5y revision** AR poll closed, AR to commence soon
- **BB: 509.0 Pointing Request Message (PRM)** Reconfirmation.
- **BB: 507.1 Launch Data Message** White Book 1.0 Drafting in progress
- **BB: 508.2 Fragmentation Data Message** White Book 1.0 Drafting in progress
- **GB: 500.0 Navigation Data – Definitions and Conventions** Clarification to be issued

## ● Spacecraft Monitor & Control WG (SM&C)

- **Issues: None, Good progress**
- **New deputy chair: Costin Radulescu (NASA)**
- **BB: 521.0 Mission Operations - Message Abstraction Layer (MAL) (ESA, CNES)** Publication approved, in publication pipeline
- **GB: 520.0 MO Services Concept (ESA): 5y revision** On hold waiting for MAL
- **MB: 520.1 Mission Operations Reference Model (DLR): 5y revision** In publication pipeline
- **BB: 522.2 Mission Product Data Distribution Services (ESA, CNES)** Red-1 completed, poll to start AR
- **BB: 522.x File Management Services (ESA, ?)** Drafting
- **New project envisaged for CCSDS Delivery Agent – Joint meeting with DTN this week**

# **CCSDS Opening Plenary Spring 2024**

## **Cross Support Transfer Services Area (CSS)**

**Erik Barkley, Area Director**  
**Holger Dreihahn, Deputy Area Director**

## Cross Support Transfer Services WG

Functional Resource Model (MB)  
Functional Resource Model (SANA+)

Service Control – SC-CSTS  
Cross Support Reference Model

Published

Completed Tier 2 resource definitions; CCSDS review pending; Tier 3 resource definitions first draft definitions completed

1<sup>st</sup> complete draft (WB) produced

Retired

## Cross Support Service Management WG

Abstract Event Definition (MB)  
Service Management Concept (GB)  
Simple Schedule Format (SSF)  
Common Data Entities (MB-2)  
Service Management Utilization Request Format (BB)  
Service Package Data Format (BB)  
Configuration Profile, Service Agreement (BB)  
Event Sequence (BB)  
Management Service

Technical Corrigendum published

Survey for refresh

Survey for refresh

Updated; final check for publication resolution

Final check for publication resolution

Review prototype plan to enable publication

Review draft so far

Review draft material developed; discuss project creation

Review results from Developer's Forum discussions; plan book development

## Cloud Data Delivery Standards WG (Forming)

Draft Charter, deliverables  
Workplan/assignments

Review, approve  
Develop, concur

## CSS (Area Level)

Plenary

Coordinate use of FRM in a managed service context  
Consolidate usage of GitHub repositories  
Review input for Lunar Interoperability Plenary

Joint session SIS-DTN/CSSM/CSTS

Review/discuss CSS Area standards that support DTN Network Management

Joint session SLS-OPT/CSTS

Discuss Optical Comm functional resource definitions

# CCSDS Opening Plenary Spring 2024

## Spacecraft Onboard Interface Services Area (SOIS)

**Jonathan Wilmot, Area Director**

**Xiongwen He, Deputy Area Director**

## Application Support WG

- CMC approval (03/29/2024) to publish CCSDS 870.0-G-1, Electronic Data Sheets and Dictionary of Terms for Onboard Devices and Components (Green Book, Issue 1)
- CMC approval (03/29/2024) to publish CCSDS 876.1-M-1, Spacecraft Onboard Interface Services— Specification for Dictionary of Terms for Electronic Data Sheets
- Ongoing and productive discussions with agency and industry mission engineers to promote infusion of SOIS standards
- Meeting Objectives
  - Final review of interoperability tests and documentation for 876.0-P-1.1 XML Specification for Electronic Data Sheets (Magenta Book, Issue 1)
    - Book was updated incorporate feedback from mission users
  - Support meetings with SEA, DTN, and CSS area
  - Discuss and update SOIS project schedules in CWE based on resource availability
  - Expect resolution to submit 876.0-P-1.1 for publication
  - Discussion and completion of SEDS container white paper for new magenta book. Good engagement with agency and industry mission engineers on use cases and infusion

## Subnet WG Joint meeting with Subnet WG

- WG has been stalled with minimal agency participation
- Short meeting to discuss path forward on Sub-network Synchronization and Device Discovery Service
  - Updates to SOIS device discovery/enumeration with focus on use cases for crewed systems (in orbit and surface)

## Wireless WG

- **CESG approval (3/27/2024) to publish CCSDS 883.0-B-2, Spacecraft Onboard Interface Services—High Data Rate Wireless Proximity Network Communications (Blue Book, Issue 2)**
- **All meetings virtual**
- **Establishing interoperability test capability at NASA-JSC**
- **Discuss updates on relevant agency wireless activities**
  - **NASA**
  - **CSA**
  - **DLR:**
  - **Roscosmos**
  - **CNES**
- **Discuss new Projects**
  - **CCSDS-883 BBv3 (Include additional material on 5G)**

# CCSDS Opening Plenary Spring 2024

## Space Link Services Area (SLS)

**Ignacio Aguilar Sánchez, Area Director**

**Gilles Moury, Deputy Area Director**



# SLS Area Spring 2024 Status + Meeting Objectives (1/2)

- **RF & Modulation WG (D. Lee & G. Sessler)**

- **415.0-B 2 GHz CDMA Links for Data Relay Satellites**

- Pink sheets to add on-regenerative PN ranging and lunar relay

Achieve consensus on updates

- **401.0-B Pink Sheets**

- Amplitude and Phase Imbalance Recommendation for High Order Modulations
    - Possible reorganization of 401.0 Part 2 with data relay recommendations

Achieve consensus  
Discussion

- **211.1-B Proximity-1 Physical Layer**

- Open points (e.g., phase noise on hailing channel)

Discussion (Joint RFM/SLP/C&S Meeting)

- **Space Link Code/Sync WG (A. Modenini & K. Andrews) – meeting already held**

- **131.0-B, TM synchronization & coding**

- Update of 131.0-B for TF slicing
    - Update of 131.0-B for Turbo interleaver

Achieve consensus on technical updates

Achieve consensus on technical and editorial updates

- **231.0-B, TC synchronization & coding**

- Performance analysis of LDPC tail sequence

Discussion of possible technical issue on LDPC TC tail sequence

- **Joint topics**

- VCM Green Book (C&S, RFM)
    - Link budget digital format
    - Proximity-1 (SLP, C&S, RFM)
    - Status of Slicing for potential use of Variable Length Frames (SLP, C&S, OPT)
    - Use of LDPC optical codes for RF links
    - New link budget processing method

Proposing new project

Proposing new project

Status check of projects on S-Band proximity-1 extension

Status check, for possible harmonization in 131.x-B, 431.1-B, 142.0-B

Introduction of new topic

Introduction of new topic

- **Space Link Protocols WG (G. Kazz & M. Cosby)**

- **211.0-B Proximity-1 SDLP – Update for Lunar Operations**

- Type 4 SPDU directives for Lunar in Annex B
    - Default session control parameters for link establishment (new Annex)

Discussion, achieve consensus on updates

Discussion, achieve consensus on updates

- **211.0-B split into 3 components**

- COP blue book for both COP-1 and COP-P
    - Generic link layer Session Control Blue Book
    - Remainder

Discussion

Discussion

Discussion

Discussion

- **5-year Due Diligence**

Status check

- **Joint topics**

- Proximity-1 (SLP, C&S, RFM)

Discussion

# SLS Area Spring 2024 Status + Meeting Objectives (2/2)

- **Space Data Link Security (SDLS) WG (G. Moury & H. Weiss)**
  - **350.11-G SDLS Extended Procedures**
    - Review of final edits, WG/areas resolution to publish
  - **Triple Key Encapsulation Mechanisms (KEM) Profile**
  - **Revise SDLS Extended Procedures BB to adress constellations**
  
- **Data Compression (DC) WG (M. Wong & L. Santos)**
  - **124.0-G Robust Compression of Fixed-length Housekeeping Data**
  - **123.0-B3 Low-Complexity Lossless and Near-Lossless Multispectral and Hyperspectral Image Compression**
  - **125.0- B Raw SAR Compression**
  
- **Optical Communications WG (J. Hamkins & C. Heese)**
  - **Coherent Blue Book**
    - Requirements
    - Channel model
    - Erasure coding
    - Analysis of ARQ, erasure coding, and interleaving
    - Interleaver
    - Code selection
    - DTN WG
    - In-band signaling
  - **MVP for functional Resource Model (with other WGs)**
  - **Presentation from Agencies (NASA,ESA, CNES, DLR)**
  - **Joint meeting with C&S and SLP WGs**

Review

Discussion and initialization of the project

Discussion and initialization of the project

Review and achieve consensus for Agency Review

Review draft, cross-verification and provide final draft.

Review and resolve technical issues within WG

Discussion

Discussion

Discussion

Discussion

Discussion

Discussion

Discussion

Presentation

Discussion

Discussion

Discussion

Discussion

# CCSDS Opening Plenary Spring 2024

## Space Internetworking Services Area (SIS)

**Tomaso de Cola, Area Director**

**Ivica (Vinny) Ristovski, Deputy Area Director**

## Voice WG

Dormant, not meeting

## CFDP Revision WG

CFDP 727.0-B-5 Pink Sheets

Finalisation of CFDP-B5 updates prior to Agency review; main focus of the update is to make more features optional to allow *mimalistic* implementations, e.g. for use over Bundle Protocol

CCSDS 722.1-M-1 (CFDP over Encap)

Finalisation of extensions to include CFDP over BP, LTP, UDP, and TCP prior to Agency review

## MIA WG

766.3-B-1 (RTP over DTN)

Discussion on the way forward on the basis of agency experience about streaming over DTN

Video Quality Assessment for Space Applications

Review of the draft and progress in editing

## DTN WG

BPv7

BPsec

DTN Multipoint Delivery (orange book)

DTN Network Management  
(orange book)

Compressed Bundle Status Reporting  
(Orange book)

LTP reaffirmation

HPRP book  
(Orange book)

Bundle Protocol Quality of Service Extensions  
(Orange book)

Bundle in Bundle Encapsulation  
(Orange book)

WG Discussion

Joint DTN/SEA-SEC  
Joint DTN/MOIMS-SM&C  
Joint DTN/CSS Area

Finalisation plan

Finalisation plan

Discussion of the content based on the already available material

Discussion and consolidation of the content

Review of the current content and next steps

Discussion about SANA-related issues

Discussion about the draft and its consolidation

Preliminary content of the book for discussion

Preliminary content of the book for discussion

DTN and Internet Integration

DTN/BPsec role in mission security architecture

First-hop/last-hop discussion

Discuss CSS products relevant to DTN & DTN Network Management

# Fall 2024 Technical Plenary



- ✦ Hosted by the UK Space Agency.
- ✦ Fall Technical Plenary scheduled for 4-8 November.
- ✦ CESG & CMC meetings scheduled for 11-14 November.
- ✦ Location and further logistics to be announced.

# Spring 2024 Technical Plenary Logistics

- **Security Expectations/Building Conduct**
  - Security screening required each time entering HCHB, please plan arrival accordingly.
  - Escorts required at all times – you will be assigned an escort today that remains with your WG for the week.
- **Coffee/Lunch are self paid for the week**
  - There is a mini food market located on the 5<sup>th</sup> floor.
  - Use the Foda app to order ahead for pop-up restaurants located on the ground level floor.
  - There are dozens of food trucks just outside and surrounding the National Mall to choose from.
  - Regan Building adjacent to HCHB has a food court accessible via tunnel from the ground level floor – security screening upon re-entry required.
- **WiFi**
  - SSID: SpacePlenary
  - PWD: CCSDS!NISTspring@24 (*case-sensitive*)
- **Surprise! We will capture our group photo here in the auditorium, get ready to ‘say cheese!’**

**We will dismiss from the back of the auditorium to the front, please find the escort holding a sign associated with your first WG of the day.**