**August 13, 2024 Meeting Notes: CCSDS Optical Communications Working Group**

Presentations and other materials are posted on the SLS-OPT team website in the folder corresponding to the meeting date, unless otherwise indicated. Additional discussions of note are recorded below, and actions are indicated with highlighted text.

**Agenda**

* **Endorsement of Optical Ranging YB (if not done via email)**

Discussion: should the Blue Book be approved without ranging content, which could then be added later? 🡪 WG decided that if the ranging Yellow Book content is not ready by the Sept meeting, we will proceed with publishing the Blue Book without the ranging content

* **Discuss feedback on the wavelength plan proposed by ESA (all agencies)**

Review and discussion of ESA plan presented ([ESA input discussion wavelength plan.pdf](https://cwe.ccsds.org/sls/docs/SLS-OPT/CWE%20Private/Monthly%20Telecons/2024/20240709%20-%20July%209%20telecon/20240709_CCSDSMonthly.pptx?d=wad9f2d8cf1384ae39ac9d95b8b6909e4)) at the July meeting

* + NASA: concerned that the ESA plan is not compatible with other definitions that the WG previously accepted in the Orange Book developed by NASA/JAXA/NICT. NASA will review the ESA proposal and provide input at the September meeting.
  + JAXA feedback presented in [JAXA\_CoherentBlueBook\_update\_20240813.pdf](https://cwe.ccsds.org/sls/docs/SLS-OPT/CWE%20Private/Monthly%20Telecons/2024/20240813%20-%20August%2013%20telecon/JAXA_CoherentBlueBook_update_20240813.pdf)

ACTION: NASA to provide feedback at the Sept meeting on the wavelength plan proposed by ESA

* **Coherent Blue Book updates** 
  + **Gantt chart updates (B. Robinson)**

Viewed the Gantt chart ([240813 Coherent Blue Book Schedule.pdf](https://cwe.ccsds.org/sls/docs/SLS-OPT/CWE%20Private/Monthly%20Telecons/2024/20240813%20-%20August%2013%20telecon/240813%20Coherent%20Blue%20Book%20Schedule.pdf)) (the critical path is indicated in red); publication of Coherent BB is still on track for Dec 2025

Although the Working Group will continue to concentrate on the items on the critical path, other work items could commence if they involve other parties

* + **Agency inputs regarding Fading Scenario parameters specified by DLR**

Reviewed DLR input from July meeting ([20240709\_CCSDSMonthly.pdf)](https://cwe.ccsds.org/sls/docs/SLS-OPT/CWE%20Private/Monthly%20Telecons/2024/20240709%20-%20July%209%20telecon/20240709_CCSDSMonthly.pptx?d=wad9f2d8cf1384ae39ac9d95b8b6909e4)

Since uplink and downlink are both considered, additional factors may need to be examined (DLR will present more detailed information at the next F2F)

Comment from industry (Hennes Henninger): an 800 mm aperture on the ground will require large ground station, and current trend is toward implementing smaller ground stations

DLR (Juraj Poliak): larger ground station aperture is only needed for GEO scenario🡪 Updated ground station aperture to be 400mm to LEO and 800mm for GEO

NICT comments on proposed fading vectors: ([Fading Vectors JAXA-NICT.pdf](https://cwe.ccsds.org/sls/docs/SLS-OPT/CWE%20Private/Monthly%20Telecons/2024/20240709%20-%20July%209%20telecon/20240709_CCSDSMonthly.pptx?d=wad9f2d8cf1384ae39ac9d95b8b6909e4))

* + **Strawman update (B. Robinson)**

Not discussed at this meeting, but NASA (B. Robinson) will update the strawman table with inputs, including those provided by JAXA at this meeting

* **Review of the proposed list of weather-related parameters in CSTS WG Functional resource tool (M. Craddock/NG and D. Kolev/NICT)**

([MVP feedback\_11Aug2024.pptx](https://cwe.ccsds.org/sls/docs/SLS-OPT/CWE%20Private/Monthly%20Telecons/2024/20240813%20-%20August%2013%20telecon/MVP%20feedback_11Aug2024.pptx?d=wfca8af24a4ba4369bd2b14fbc7ad096a))

ACTION: M. Craddock to request that the CSTS WG update the CSTS tool to include all the additional items needed for optical comm prior to Sept meeting

CSTS: The objective is to standardize to enable exchange of info between stations🡪 i.e., what do missions want to know about Ground Stations? CSTS effort mapped RF system practices to optical comm

However, optical scenarios must also consider clouds, so additional info is required

* **Action Item review**

Will review at next meeting

**Upcoming Meetings:**

**Sept 24 Agenda**

* Approval of Optical Ranging YB (with or without ranging content)
* Continue discussion on the wavelength plan proposed by ESA (all agencies)
* Coherent Blue Book updates/feedback (B. Robinson)
  + Update on sys config for fading vector (DLR)
* Schedule for upcoming F2F meeting in London and potential Oct meeting
* Action Item Review