***Jean-Luc Issler’s answer:***

*The proposed changes consist of supressing very important requirments for the adopters. The initial text subited to CESG is appropriate, and result from most of the discussions having taking place during the 883 Agency Review with the participation of Dr Shames by E-mail, with a consensus which has been reached then for this subject. The spectrum content is appropriate because, as mentioned in RID SEA-001-883:*

***The Physical Layer frequencies that the source standards have adopted may, in many cases, not be suitable for use in space***

*There are also other CCSDS bleue books mentioning spectrum contents when needed.*

*The 883 standard, for the first time of CCSDS history, would be a CCSDS standard specifying commercial standards which are likely to be not compatible with ITU Radio Regulation in the SZM, related ITU-RECs, SFCG RECs, and protection of Radio Astronomy on the Shielded Zone of the Moon, for an important number of cases of the source standards. That is also why in this new situation for CCSDS, our spectrum text is valid, also to better protect CCSDS and favor smooth adoptions.*

*The mentioned Physical Layer frequencies may not be suitable for space (and in particular on the Moon) due to key requirments contained in SFCG and ITU RECs, as well as in the Radio Regulation. To not provide these key requirements to the direct knowledge of the adopters in the CCSDS 883 standard would reduce too much the normative part and consequently the efficiency of this standard.*

*The spectrum text proposed to be removed is also essential for the adopter’s true awareness about protection of Radio Astronomy in the Shielded Zone of the Moon, which is a key design criteria of lunar wireless links.*

*That is why some specific requirements shall be provided to the adopter, a more detailed paragraph than the too simplified and reduced proposed one.*

*I consider that the parts underlined* ***in green*** *are mandatory to keep in 883 CCSDS standard to consider major CNES RIDS made during the agency review to still have disposition. These parts are added bellow to the paragraph proposed by Dr Shames for the said paragraph to be considered as acceptable for me.*

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CESG POLL ITEM DISPOSITION (PID) INITIATION FORM

AREA PID NUMBER: SEA-883x0r0-009

SUBMITTING AREA: SEA

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REVIEWER'S NAME: Peter Shames

E-MAIL ADDRESS: peter.m.shames@jpl.nasa.gov

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DOCUMENT NUMBER: CCSDS 883.0-B-0

DOCUMENT NAME: SOIS High Data Rate Wireless Proximity Network

Communications

DATE ISSUED: August 2021

PAGE NUMBER: 3-1 PARAGRAPH NUMBER: 3.2

PID SHORT TITLE: Inappropriate RFM content in link layer document

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DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

From:

**3.2 General**

This Recommended Standard does not provide any normative guidance in the frequency values of the permitted bands **(in addition to the applicable SFCG band to protect 2483.5– 2500 MHz)** by the space systems using the wireless terrestrial standards covered in this book. **Consequently, the following implications for the frequency selection are to be followed:**

1. **The frequency band choices for lunar or Martian surface wireless transmissions could be impacted by ITU Recommendations (references [37] and [38]) and by the Radio Regulation (reference [39]) applicable in the SZM. Therefore, adopters must ensure compatibility with ITU Radio Regulations and should also reach compliance with SFCG recommendations (references [33] and [42]).**
2. **The use of any non-SFCG wireless frequency band shall be verified by liaising with the CCSDS Space Link Services (SLS) Radio Frequency and Modulation (RFM) Working Group (WG).**
3. **Before finalizing their frequency band choice, space agencies must ensure clearance for an SFCG waiver when the targeted frequency band is not recommended in reference [33] or in reference [42].**
4. **A frequency-usage verification procedure must be followed as it is defined by the responsible bodies (which can include the SLS RFM WG).**

To:

**3.2 General**

This recommended standard does not provide any normative guidance in the frequency values of the permitted operating bands for space missions **(in addition to the applicable SFCG band to protect 2483.5– 2500 MHz)**. As noted in 2.4.3, spectrum coordination will be required before detailed design can proceed. **Consequently, the following implications for the frequency selection are to be followed:**

1. **The frequency band choices for lunar or Martian surface wireless transmissions could be impacted by ITU Recommendations (references [37] and [38]) and by the Radio Regulation (reference [39]) applicable in the SZM. Therefore, adopters must ensure compatibility with ITU Radio Regulations and should also reach compliance with SFCG recommendations (references [33] and [42]).**
2. **The use of any non-SFCG wireless frequency band shall be verified by liaising with the CCSDS Space Link Services (SLS) Radio Frequency and Modulation (RFM) Working Group (WG).**
3. **Before finalizing their frequency band choice, space agencies must ensure clearance for an SFCG waiver when the targeted frequency band is not recommended in reference [33] or in reference [42].**
4. **A frequency-usage verification procedure must be followed as it is defined by the responsible bodies (which can include the SLS RFM WG).**

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CATEGORY OF REQUESTED CHANGE:

Technical Fact \_X\_ Recommended \_\_\_ Editorial \_\_\_

NOTES:

TECHNICAL FACT: Major technical change of sufficient magnitude as to

render the Recommendation inaccurate and unacceptable if not

corrected. (Supporting analysis/rationale is essential.)

RECOMMENDED: Change of a nature that would, if incorporated, produce

a marked improvement in document quality and acceptance.

EDITORIAL: Typographical or other factual error needing correction.

(This type of change will be made without feedback to submitter.)

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SUPPORTING ANALYSIS:

The issue, and rationale, for requiring coordination for spectrum allocation has been pointed out in the revised sec 2.4.3. It is not appropriate to address this RFM subject further in this link layer document and there is no value in repeating this same information here.

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DISPOSITION: