AnNEX E\*

Default hailing Parameters for Space Enterprises

(NORMATIVE)

This normative annex documents the default Proximity-1 hailing (session establishment) parameters used for hailing a partnered transceiver for specific Space Enterprises e.g., Mars, Lunar. Note that his Annex provides the parameter values to carry out both a demand and a negotiated hail.

\* CCSDS Secretariat to assign Annex Letter in CCSDS 211.0-B.

* 1. UHF-Band (used at Mars)
		1. UHF Band Hailing channel Parameters

## Hailing Carrier Frequency

* + Channel 1 (435.6 MHz) forward link and Ch 0 (404.4 MHz) return link.[[1]](#footnote-1)
* Hailing Symbol Rate
	+ 8,000 symbols/second
* Coding
	+ Uncoded
* Modulation
	+ Bi-Phase-L
* Polarization
	+ Right Hand Circular
* Transceiver Mode
	+ Proximity-1
* Coherency
	+ Non-coherent
	1. S Band (Used at the moon)
		1. S Band Hailing channel Parameters
* Primary Hailing Channel 0[[2]](#footnote-2)2
	+ Left Hand Circular (LCF) Polarization;
* Optional Hailing Channel 9[[3]](#footnote-3)2
	+ Right Hand Circular (RCF) Polarization;
* Hailing Coded Symbol Rate
	+ 2000 symbols/second
* Coding
	+ LDPC (n=2048,k=1024) rate 1/2 code defined in CCSDS 211.2-B-4.
* Modulation
	+ Bi-phase-L
* Transceiver Mode
	+ USLP
* Coherency
	+ Non-coherent
1. Hailing is performed between transceivers that are pre-configured. Therefore, it is
nominally performed on the hailing channel. However, if transceivers are compatibly
configured, hailing can occur on an agreed-to channel. Several first generation of
transceivers in the Mars Enterprise at UHF are fixed frequency and use Channel 0. [↑](#footnote-ref-1)
2. 2 Specific frequency channel assignments are defined in the Proximity-1 Space Link Protocol - Physical Layer (reference [6]). [↑](#footnote-ref-2)
3. [↑](#footnote-ref-3)