It shall be mentioned that COP-1 Managed Parameters are defined in CCSDS 232.1-B-2: RECOMMENDED STANDARD FOR COMMUNICATIONS OPERATION PROCEDURE-1

1.1 MANAGED PARAMETERS FOR A PHYSICAL CHANNEL

Table 5-1 lists the managed parameters associated with a Physical Channel.

Table 5-1: Managed Parameters for a Physical Channel

Managed Parameter	Allowed Values
Physical Channel Name TM + TC + AOS	Character String
Frame Length Type – New USLP	Fixed (allowed with TM, SCCC, DVB-S2 coding), Variable (allowed with TC, Proximity-1 coding)
Maximum Transfer Frame Length (octets) TM (without Maximum) + TC + AOS (without Maximum)	Integer (to be intended as fixed length with TM, SCCC, DVB-S2 coding, and as Maximum Length with TC, Proximity-1 coding)
Transfer Frame Version Number TM + TC + AOS	'1100' binary
Valid Spacecraft IDs TM + TC + AOS	Set of Integers
MC Multiplexing Scheme TM + TC + AOS	Mission Specific
Presence of Insert Zone AOS	Present, Absent
Insert Zone Length (octets) AOS	Integer
Presence of Frame Error Control TM + TC + AOS	Present, Absent
Frame Error Control Length (octets) New USLP	2 or 4
Maximum Number of Transfer Frames Given to the Coding Sublayer as a Single Data Unit TC	Integer (allowed only with TC coding if several frames for CLTU are allowed)

Maximum value for the Repetitions parameter to the Coding Sublayer TC	Integer (allowed only with TC coding)
Not imported from TC: • TC / Maximum Bit Rate Accepted by the Coding Sublayer = Real number/second (for COP Timers?) Not imported from AOS: • AOS / Presence of Frame Header Error Control = Present, Absent	

1.2 MANAGED PARAMETERS FOR A MASTER CHANNEL

Table 5-2 lists the managed parameters associated with a Master Channel.

Table 5-2: Managed Parameters for a Master Channel

Managed Parameter	Allowed Values
Maximum Transfer Frame Length (octets) TC (up to 1024)	Integer (allowed with TC, and Proximity-1 coding)
Spacecraft ID TM + TC + AOS	Integer
Valid VCIDs TM (with shorter range) + TC (with no limitation for value 63) + AOS	Selectable Set of Integers (from 0 to 62) (in addition to VCID 63)
VC Multiplexing Scheme TM + TC	Mission Specific
NOTES 1 The value of the Transfer Frame Version Number is the same for all Transfer Frames on a Physical Channel. TM + AOS 2 For VCID the binary value of 'all ones' (i.e., 63) is always valid as it is reserved for OID Transfer Frames by 4.1.4.1.9; i.e., the number of Valid VCIDs always includes value 63 and the Selectable Set of Integers defined above. AOS	
Not imported from TM: • TM / Presence of MC_FSH • TM / MC_FSH Length (if present) (octets) • TM / Presence of MC_OCF	

Comment [GPC1]: Is the limit the sky? ☺

Comment [GPC2]: I know that this the sequence in TC but ….
IMO This parameter should be the first one of this table.

1.3 MANAGED PARAMETERS FOR A VIRTUAL CHANNEL

Table 5-3 lists the managed parameters associated with a Virtual Channel.

Table 5-3: Managed Parameters for a Virtual Channel

Managed Parameter	Allowed Values
Maximum Transfer Frame Length (octets) TC (up to 1024)	Integer (allowed with TC, and Proximity-1 coding)
Spacecraft ID TM + TC + AOS	Integer
VCID TM (with shorter range) + TC (63 not reserved) + AOS	0, 1, …, 62 (63 reserved)
COP in Effect TC (only 1)	1, P, NONE
CLCW Version Number TC (only 1)	1
Valid MAP IDs (if Segment Header is present) TC (up to 63)	Set of integers (from 0 to 31)
MAP Multiplexing Scheme (if Segment Header is present) TC	Mission Specific
Maximum TFDF Length New USLP	~~Integer~~ Fixed (allowed with TM, SCCC, DVB-S2 coding), Variable (allowed with TC, Proximity-1 coding)
Value for the Repetitions parameter to the Coding Sublayer when transferring frames carrying service data on the Sequence-Controlled Service TC	Integer
Value for the Repetitions parameter to the Coding Sublayer when transferring frames carrying COP control commands TC	Integer
NOTES 1 The value of the Transfer Frame Version Number is the same for all Transfer Frames on a Physical Channel. TM + TC + AOS 2 VCID value 63 (i.e., the binary 'all ones') is reserved for OID Transfer Frames by 4.1.4.1.9. AOS	

Comment [GPC3]: Is the limit the sky? ☺

Comment [GPC4]: IMO This parameter should be the first one of this table.

Comment [GPC5]: Funny remark considering that the managed parameter "Presence of Segment Header" has not been imported. ☺

Comment [GPC6]: Funny remark considering that the managed parameter "Presence of Segment Header" has not been imported. ☺

Not imported from TM:

- TM / Data Field Content = Packets, VCA_SDU
- TM / Presence of VC_FSH = Present, Absent
- TM / VC_FSH Length (if present) (octets) = Integer
- TM / Presence of VC_OCF = Present, Absent

Not imported from TC:

- TC / CLCW Reporting Rate = Real number/Second (for COP Timers?)
- TC / Presence of Segment Header = Present, Absent
- TC / Data Field Content (if Segment Header is absent) = Packets, VCA_SDU
- TC / Blocking (if Segment Header is absent and Data Field Content is Packets) = Permitted, Prohibited

Not imported from AOS:

- AOS / Data Field Content = M_PDU, B_PDU, VCA_SDU, Idle Data
- Presence of VC_OCF = Present, Absent

1.4 MANAGED PARAMETERS FOR A MAP CHANNEL

The managed parameters associated with a MAP Channel shall conform to the definitions in table 5-4.

Table 5-4: Managed Parameters for a MAP Channel

Managed Parameter	Allowed Values
Maximum Transfer Frame Length (octets) TC (up to 1019)	Integer (allowed with TC, and Proximity-1 coding)
Spacecraft ID TC	Integer
VCID TC	0, 1, …, 63
MAP ID TC	0, 1, …, 63
NOTE – The value of the Transfer Frame Version Number is the same for all Transfer Frames on a Physical Channel. TC	
Not imported from TC: • TC / Data Field Content = Packets, MAP_SDU • TC / Blocking (if Data Field Content is Packets) = Permitted, Prohibited • TC / Segmentation = Permitted, Prohibited • TC / Maximum MAP_SDU Length (octet) (if the MAP permits Segmentation) = Integer	

Comment [GPC7]: Is the limit the sky? ☺

Comment [GPC8]: I know that this the sequence in TC but ….
IMO This parameter should be the first one of this table.

Comment [GPC9]: In the previous table Valid MAP IDs is up to 31.

1.5 MANAGED PARAMETERS FOR PACKET TRANSFER

Table 5-4 lists the managed parameters associated with a Virtual Channel used for the Virtual Channel Packet Service.

Table 5-5: Managed Parameters for Packet Transfer

Managed Parameter	Allowed Values
Valid Packet Version Numbers TM + TC + AOS	Set of Integers selected from reference [6] for TM / [5] for TC
Maximum Packet Length (octets) TM + TC + AOS	Integer
Protocol IDs Supported New USLP (but anyway to be in dedicated PID service)	Set of Integers
Whether incomplete Packets are required to be delivered to the user at the receiving end TM + TC + AOS	Required, Not required