

Unique ID	Field	PV Bit	Data Element Name & Description	Type	Units	Range
13010.08	8	7	Activity ID Used to identify goals, behaviours and constraints. 0 = Immediate Activity	Unsigned 3	None	No Restrictions

Table 4 - 42: Message #13010: VSM Flight Data Record Stream**4.12.12 Message #13011: Playback Control Command**

This message shall be used by the CUCS to place the VSM into a “playback” mode of operation and to return it to “live” mode [DLI 3764]. The CUCS shall use this message to identify the current playback speed and direction to the VSM [DLI 3765]. In the reverse playback direction, the CUCS shall transmit the VSM Flight Data Record Stream (Message #13010) Messages in the reverse direction to the VSM [DLI 3766]. The CUCS shall transmit the complete set of VSM Flight Data Record Stream (Message #13010) Messages to the VSM, in order and at the specified speed [DLI 3767]. The VSM shall determine its playback capabilities to ensure state changes, and other changes are not missed by the VSM (i.e., the VSM plays back messages at specified speed or drops messages to maintain speed) [DLI 3768].

Unique ID	Field	PV Bit	Data Element Name & Description	Type	Units	Range
13011.00	0	-	Presence Vector	Unsigned 1	Bitmapped	No Restrictions
13011.01	1	0	Time Stamp	Unsigned 5	0.001 s	See Section 1.7.2
13011.02	2	1	CUCS ID	Integer 4	None	See Section 1.7.6
13011.03	3	2	Playback Speed	Unsigned 1	Enumerated	0 = Pause 1 = 1x (Real-time) 2 = Single Step 3 = 1/5x 4 = 4x 5 = 6x 6 = 10x
13011.04	4	3	Playback Direction	Unsigned 1	Enumerated	0 = Stop 1 = Forward 2 = Reverse
13011.05	5	4	Playback Status	Unsigned 1	Enumerated	0 = Live Mode 1 = Playback

Table 4 - 43: Message #13011: Playback Control Command**4.12.13 Message #14000: Mission Upload/Download Status**

This message shall be used to provide status on a mission upload/download from a VSM to a CUCS [DLI 3277], and to request a missing waypoint from a CUCS mission upload [DLI 3587]. If there are no waypoints to transfer when a transfer is requested, the CUCS/VSM shall send this message with a status of complete and percent complete of 100 [DLI 3588].

Unique ID	Field	PV Bit	Data Element Name & Description	Type	Units	Range
14000.00	0	-	Presence Vector	Unsigned 1	Bitmapped	No Restrictions
0900.01	1	0	Time Stamp	Unsigned 5	0.001 s	See Section 1.7.2
14000.01	2	1	Mission ID Identifies mission and (by reference) flight plan uploading or downloading on this platform. Text Identifier of Mission.	Character 20	None	No Restrictions
0900.04	3	2	Status	Unsigned 1	Enumerated	0 = In progress 1 = Complete 2 = Aborted / Rejected
0900.05	4	3	Percent Complete	Unsigned 1	%	$x \leq 100$
14000.02	5	4	Waypoint Request 0 = N/A	Unsigned 2	None	$x < 65,535$
14000.03	6	5	Mission Plan Mode	Unsigned 1	Enumerated	0 = N/A 1 = Clearing Route 2 = Clearing Mission 3 = Transmitting Mission 4 = Receiving Mission 5 = Receiving Single Waypoint 6 = Receiving Activities

Table 4 - 44: Message #14000: Mission Upload/Download Status

4.13 Subsystems Status Messages

1. The Subsystems Status Messages set includes summary health and status information for use by CUCS status displays. This information need not convey detailed, configuration-specific health and status information, but should provide the CUCS with overall health summary data suitable for annunciation on the console using conventional colour codes (Green=Nominal, Yellow=Caution, Red=Warning, Black=Failed or Out-of-service). In the event of a system caution or warning, vehicle, payload or data link specific status messages can provide detailed diagnostic information peculiar to the configuration.

2. These messages shall provide health and status overview information only in an interoperable context [DLI 3278]. Detailed status information about particular subsystems shall be a vehicle-specific message type [DLI 3279].

4.13.1 Message #15000: Subsystem Status Request

This message shall be used by the CUCS to request Subsystem information from the UA, VSM or data link [DLI 3280].

Unique ID	Field	PV Bit	Data Element Name & Description	Type	Units	Range
15000.00	0	-	Presence Vector	Unsigned 1	Bitmapped	No Restrictions
1000.01	1	0	Time Stamp	Unsigned 5	0.001 s	See Section 1.7.2
1000.05	2	1	Data Link ID	Integer 4	None	See Section 1.7.6

Unique ID	Field	PV Bit	Data Element Name & Description	Type	Units	Range
1000.04	3	2	Subsystem ID Identifier associated with the subsystem for which status information is being requested as applicable.	Unsigned 4	Bitmapped	0x00000001 = Engine 0x00000002 = Mechanical 0x00000004 = Electrical 0x00000008 = Comms 0x00000010 = Propulsion Energy 0x00000020 = Navigation 0x00000040 = Payload 0x00000080 = Recovery System 0x00000100 = Environmental Control System 0x00000200 = VSM Status 0x00000400 = VDT 0x00000800 = CDT 0x00001000 = Reserved 1 0x00002000 = Reserved 2 0x00004000 = Reserved 3 0x00008000 = Reserved 4 0x00010000 = Reserved 5 0x00020000 = Reserved 6 0x00040000 = Reserved 7 0x00080000 = Reserved 8 0x00100000 = VSM Specific 1 0x00200000 = VSM Specific 2 0x00400000 = VSM Specific 3 0x00800000 = VSM Specific 4 0x01000000 = VSM Specific 5 0x02000000 = VSM Specific 6 0x04000000 = VSM Specific 7 0x08000000 = VSM Specific 8 0x10000000 = VSM Specific 9 0x20000000 = VSM Specific 10 0x40000000 = VSM Specific 11 0x80000000 = VSM Specific 12
15000.01	4	3	Activity ID Used to identify goals, behaviours and constraints. 0 = Immediate Activity	Unsigned 3	None	No Restrictions

Unique ID	Field	PV Bit	Data Element Name & Description	Type	Units	Range
15000.02	5	4	Controlled Station 1-16	Unsigned 2	Bitmapped	0x0000 = UAV Platform 0x0001 = Stn #1 0x0002 = Stn #2 0x0004 = Stn #3 0x0008 = Stn #4 0x0010 = Stn #5 0x0020 = Stn #6 0x0040 = Stn #7 0x0080 = Stn #8 0x0100 = Stn #9 0x0200 = Stn #10 0x0400 = Stn #11 0x0800 = Stn #12 0x1000 = Stn #13 0x2000 = Stn #14 0x4000 = Stn #15 0x8000 = Stn #16
15000.03	6	5	Controlled Station 17-32	Unsigned 2	Bitmapped	0x0000 = UAV Platform 0x0001 = Stn #17 0x0002 = Stn #18 0x0004 = Stn #19 0x0008 = Stn #20 0x0010 = Stn #21 0x0020 = Stn #22 0x0040 = Stn #23 0x0080 = Stn #24 0x0100 = Stn #25 0x0200 = Stn #26 0x0400 = Stn #27 0x0800 = Stn #28 0x1000 = Stn #29 0x2000 = Stn #30 0x4000 = Stn #31 0x8000 = Stn #32
15000.04	7	6	Component Number Location ID on a given Station Location	Unsigned 2	Bitmapped	0x0001 = #1 0x0002 = #2 0x0004 = #3 0x0008 = #4 0x0010 = #5 0x0020 = #6 0x0040 = #7 0x0080 = #8 0x0100 = #9 0x0200 = #10 0x0400 = #11 0x0800 = #12 0x1000 = #13 0x2000 = #14 0x4000 = #15 0x8000 = #16

Unique ID	Field	PV Bit	Data Element Name & Description	Type	Units	Range
15000.05	8	7	Sub-Component Number Location ID on a given Component Location	Unsigned 2	Bitmapped	0x0001 = #1 0x0002 = #2 0x0004 = #3 0x0008 = #4 0x0010 = #5 0x0020 = #6 0x0040 = #7 0x0080 = #8 0x0100 = #9 0x0200 = #10 0x0400 = #11 0x0800 = #12 0x1000 = #13 0x2000 = #14 0x4000 = #15 0x8000 = #16

Table 4 - 45: Message #15000: Subsystem Status Request

4.13.2 Message #15001: Subsystem Status Detail Request

This message shall be used by the CUCS to request more information from the UA, VSM or data link about a specific subsystem [DLI 3281]. The UA, VSM or data link shall respond using a vehicle specific service specified in Section 1.7.5.1 [DLI 3282].

Unique ID	Field	PV Bit	Data Element Name & Description	Type	Units	Range
15001.00	0	-	Presence Vector	Unsigned 1	Bitmapped	No Restrictions
1001.01	1	0	Time Stamp	Unsigned 5	0.001 s	See Section 1.7.2
1001.04	2	1	Subsystem State Report Reference The Report Reference is the Vehicle or Data Link Specific information reference previously provided by the UA, VSM or Data Link.	Integer 4	None	0 ≤ x

Table 4 - 46: Message #15001: Subsystem Status Detail Request

4.13.3 Message #16000: Subsystem Status Alert Message

1. This message shall be used by the UA, VSM, or data link to create a Subsystem Status Alert [DLI 3283]. Examples are:

- “Engine #3 Failure”
- “Engine #3 Cylinder Head Temp > 280C, currently 295 C”

2. The Subsystem State Report Reference shall be assigned by the UA, VSM or data link [DLI 3284]. The purpose of this field is to provide a reference number for subsequent requests for more information on a posted alert by the CUCS. If the CUCS requires additional information for a specific alert posted by the UA, VSM or the data link, the CUCS shall request this information using Message #15001 [DLI 3285]. Alert messages of Type 1 (Not Clearable or Acknowledgeable by operator) can be cleared