

SUBSYSTEM CCTV
 UNIT Pan/Tilt Unit (PTU)
 ASSY. BANG. 2294022-502, 503, 504
 QUANTITY/LOCATION 1/700, 11PLE (CARGO BAY STACK)

SHUTTLE CCTV FAILURE MODE
& EFFECTS ANALYSIS

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FUNCTION: The PTU will move in the Pan or Tilt direction in response to a command.

| ITEM | FAILURE MODE | FAILURE CAUSE | FAILURE EFFECT ON ESD ITEM | FAILURE DETECT FLIGHT/GROUND | CORRECT ACTION TIME AVAIL/REQ | CRIT'Y | HAZARDS/REMARKS |
|-------|---|---|--|--|--|--------|-----------------|
| 2.4.3 | Loss of Pan and Tilt critical function. | PTU A2 Power supply. Command/Clock Receivers. | Loss of travel in the pan or tilt direction. | FLY- (1) Scene information from camera mounted on PTU as observed on TVM appears stationary in response to pan or tilt commands. (2) May observe lack of movement of PTU through the crew cabin window. (3) May use TVM in conjunction with another camera to observe suspect PTU. CAM- Scene information from camera mounted on PTU as observed on TVM appears stationary in response to pan or tilt commands. | None | 2/2 | |
| | | | Worst Case (if video is not mission critical for B & C cameras only): Unable to verify PTU door aft bulkhead latches are closed. | Same as above | None. (Usage of EVA tools is available.) | 3/1R | |

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 ATTACHMENT 1
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