**RBSP EFW TECHNICAL MEMO**

**RE: IDPU D Connector jackposts lower than connector body**

Revision History:

* Rev A, Bill Donakowski, UCB SSL, 28 June 2011.
  + Initial revision, in response to RB-A-199 Anomaly report, IDPU item #8.

**Background**

It was observed during the incoming QA inspection at APL on 27 June 2011 that several jackposts were lower than the adjacent connector body on the FM02 EFW IDPU. This condition was also noted on the FM1 unit during the Incoming QA inspection on 28 June 2011. Standard practice is to have the jackpost height be approximately in plane with the top surface of the connector body. The jackposts were shorter than the end of the connector body on the order of .035”.

**Affected Hardware**

This configuration occurs on the EFW IDPU, on both the FM1 and FM2 units.

**Disposition**

Use AS-IS. Connector integrity is adequate and meets design goal as assembled.

**Rationale**

1. Connector mate integrity is not affected by this configuration. Unlike the situation in which the jackposts are too tall, a ‘short’ jackpost does not prevent complete pin engagement.
2. UCB/SSL has performed EMI/EMC, electrical checkout, and TVAC testing of both units in this configuration without problem.
3. A standard concern that can come up from this issue is that torquing of the attachment screws may bend the connector flange as the fasteners at the flange ends never bottom out. In this case that concern is mitigated by the fact that the mating connectors are enclosed by full-enclosure metal backshells that include a supporting lip for the harness connector flange. These backshells are significantly stiffer than the connector flange. Hence, the connector will be supported by the Backshell and will not bend.
4. As part of discussions with Positronics (the connector manufacturer) as well as other connector manufacturers, it was found that that manufacturer does not have an established tolerance on the dimension of the jackpost relative to the connector shell length.
5. This configuration will not cause any gaps between the harness backshell and IDPU to develop that might be an EMI leak path.