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## **C2Or2B-03: Performance of MLI Seams between 293 K and 20 K**

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The performance of multilayer insulation systems (MLI) are often determined not by the bulk acreage insulation, but rather by the design details that allow the insulation to be attached to the hardware it is insulating. To help understand the impacts of multiple different types of seams on blanket performance, calorimeter testing was performed at Glenn Research Center. Seams investigated included interleaved seams, butt seams, and overlapped seams; the latter two with multiple sub-blanket offsets built into the seam. Results showed that the interleaved seam had the best performance, and butt seams outperformed overlapped seams. Furthermore, if overlap seams are used, the sub-blankets should overlapped less than two inches.

**Primary author:** JOHNSON, Wesley (NASA Glenn Research Center)

**Co-author:** Dr CHATO, David (NASA Glenn Research Center)

**Presenter:** JOHNSON, Wesley (NASA Glenn Research Center)

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