

E-LOG

NASA Process Engineering @ KSC

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BSTRA Ball
Status

STS: FLIGHT:

SYSTEM:
COMPONENT:

ELEMENT: Orbiter
SUB ALL VEH

ENTERED BY: Tammy Alexander
BRANCH: MPS/SSME

FAILURE
PART

01/06/2003 6:31:27 PM

Tammy Alexander

There were two BSTRA ball meetings this afternoon. The meeting at noon went over preliminary STS-107 FRR charts. The meeting at 5:00 was a special PRCB to discuss flight rationale. Flight rationale will be based on the results of ongoing testing at MSFC and Boeing/Huntington Beach. A successful rationale would be based on tests that show cracks are "self-limiting" (once crack reaches maximum size after a few cycles, it stops growing) and that no FOD (or acceptable levels of FOD) is produced.

So far, testing has shown that cracking the balls is difficult. Some cracks were generated under such severe conditions that they may not be representative of actual flight conditions. Some of these cracks did branch and generate FOD. More testing is needed to see if balls with less severe crack initiation generate FOD.

JSC has developed a tool to rotate the ball inside the feedline. NASA, USA, and Boeing representatives from KSC are in Houston today for a demo of the tool. It is likely this tool will be used on OV-103 to look at the BSTRA ball that is cracked.

This issue will go forward to the FRR as an exception. A status will be given at that time. The next BSTRA status meeting will be Sunday at 5:00 pm EST.

ITEM

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