

Oliu-1. Armando

From: Sent: To:
Subject:

fyi.

Blue, John B Uohn.b.blue@usago.ksc.nasa.gov] Wednesday, January 29, 2003 11: 19 AM
Oliu, Armando; Rivera, Jorge E ; Speece, Robert F FW: Update on STS-107 Ascent Anomaly

from my USA Projects folks

Original Message From: Valdivia, Michael A
Sent: Tuesday, January 28, 2003 4:14 PM
To: Blue, John B
Cc: Szia~to, Dennis A
Subject: FW: Update on STS-107 Ascent Anomaly

Original Message FroJn: PUCCETTI, ARTHUR A. (JSC-DA6) (USA) [mailto:arthur.a.puccetti@jsc.nasa.gov]
Sent: Tuesday, January 28, 2003 4:02 PM
To: BARNETT, ~AIL A. (JSC-DT) (USA); 'Powell, Judi'; BUTLER, VANESSA M. (JSC-DO461) (USA); AUBIN, JEREMY L (JSC-REMOTE); 'Bauman, Michael'; PREWITT, JACQUELINE (JSC-DT3) (USA); PITRE, DAVID E. (JSC-DT3) (USA); RACZ, DARLA S. (JSC-DT3) (BAR); 'Goin, Allen'; BERTRAND, BRIAN (JSC-DA6) (USA); CONNELL, THOMAS M. (JSC-DA6) (USA); MANDULAK, PAMELA J. (JSC-DA6) (USA); CAUTHEN, PATTI A. (JSC-DA6) (USA); HOGLE, CHARLES U. (JSC-DA6) (USA); 'Valdivia, Michael A'; 'Lagios, Philip'; 'Brown, Jim'; 'Dasler, David C'; 'Peterson, Gene C'
Subject: Update on STS-I07 Ascent Anomaly

From this morning's mission status report:

The MER Manager released the following update on the debris hit on the left wing last during ascent. "Systems integration personnel performed a debris trajectory analysis to estimate the debris impact conditions and locations. This analysis was performed utilizing the reported observations from the ascent video and film. It was assumed that the debris was foam from the external tank. Based on the results of the trajectory analysis, an impact analy~is was performed to assess,the potential damage to the tile and reinforced carbon carbon (RCC). The impact analysis indicates the potential for a large damage area to the tile. Damage to the RCC should be limited to coating only and have no mission impact. Additionally, thermal analyses were performed for different locations and damage conditions. The damage conditions included one tile missing down to the densified layer of the tile and multiple tiles missing over an area of about 7 in by 30 in. These thermal analyses indicate possible localized structural damage but no burn~through, and no safety of flight issue."

> Original Message > From: PUCCETTI, ARTHUR A. (JSC-DA6) (USA)
> Sent: Monday, January 20, 2003 11:54 AM
> To: BARNETT, GAIL A. (JSC-DT) (USA); 'Powell, Judi'; BUTLER, VANESSA M. > (JSC-DO461) (USA); AUBIN, JEREMY L (JSC-REMOTE); 'Bauman, Michael';
> 'Dasler, David C'; 'Brown, Jim'; PREWITT, JACQUELINE (JSC-DT3) (USA);
> PITRE, DAVID E.. (JSC-DT3) (USA); RACZ, DARLA S. (JSC-DT3) (BAR); '.Goin, > Allen'; BERTRAND, BRIAN (JSC-DA6) (USA); CONNELL, THOMAS M. (JSC-DA6) (USA); MANDULAK, PAMELA J. (JSC-DA6) (USA); CAUTHEN, PATTI A. (JSC-DA6) > (USA); HOGLE, CHARLES U. (JSC-DA6) (USA)
> Subject: STS-I07 Ascent Anomaly
>

> Extracted from Flight day 2 Customer Support Room Report:

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> During Ascent at approximately 81 seconds mission elapsed time (MET), a
> large light-colored piece of debris was observed. It seemed to have
> originated from an area near the ET/Orbiter forward attach bipod and
> strike the Orbiter left wing leading edge. The strike appears to have
> occurred on or relatively close to the wing glove near the Orbiter
> fuselage. After striking the left wing the debris broke into a spray of
> white-colored particles that fell aft along the underside of the Orbiter
> left wing. The spray of particles was last seen near the left Solid
> Rocket Booster (SRB) exhaust plume. Further screening of the high speed
> and high-resolution long-range tracking films may show more detail of this > event and will begin this morning.

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