

rw: STS-107 SRBPost Flight Retrieval Assessment

Oliu-1, Armando

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From: Freeland, Donna M [FreelaDM@usasrb.ksc.nasa.gov] Sent: Friday, January 24, 2003 4:38 PM
To: 'Armando.Oliu-1@nasa.gov'
Cc: Bao. Nguyen-1 (E-mail); Williams, Tina M
Subject: FW: STS-107 SRB Post Flight Retrieval Assessment

Armando,

Could you please forward Tina Williams and me the actual picture file(s) from the LH ETA Ring taken at postflight for our records?

Thanks for your help.

Donna Free/and

USA-SRB
Flight Systems Assessment
Support Engineer
(321) 861-8011

Original Message **From:** Nguyen-!, Baormailto:Bao.T.Nouven@nasa.gov
Sent: Friday, January 24, 2003 8:09 AM
To: Freeland, Donna M
Subject: FW: STS-107 SRB Post Flight Retrieval Assessment

Hi Donna,

Here's the report and photo pf the LH ET A-R taken by the debris team at post flight.

Armando talked to Tom Rieckhoff concerning the debris on the RH SRB. Tom will re-review the film and get back with us...

Actually, Tom had corrected the photo that you have from camera E220. It is now LH SRB.

Call me if you need more info.

Baa

Original Message **From:** Oliu-1, Armando
Sent: Monday, January 20, 2003 9:59 AM

To: Abner, Charlie; 'Adams, Randall'; 'Ayotte, William'; Blue, John B; 'Brown Kenneth'; 'Buckingham, Bruce'; Bulloch-1, Steve; Bursian, Henry; 'Byrne, Greg'; Chitko, Pete J.; 'cookjh@thiokol.com'; 'Derry Steve'; 'Disler, Jon'; 'Disler, Jon (2)'; 'Eastwood Martin'; Estrada-1, Carlos; 'Fricke, Robert'; Gaetjens, William; Glenn-1, Malcolm; 'Gomez Reynaldo'; 'GRP DOC Mission Support Room'; Guld-1, John; Hawkins, Tyrell; Herman, Robert S; Herst, Terri; Holloway, Darrell L; 'Holmes Steve'; Huff, Joy M.; 'Jay.Sambamurthi@msfc.nasa.gov'; Jones-1, Frank; Kelley-1, David; 'Khodadoust, Abdollah';

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Kienitz Fred 'Kinder Gerald'; 'Koenig Lisa'; 'Kopfinger, Philip A'; Lafleur, Tom C; Leggett, Kenneth D; Leinbach-I, Mike; 'Linda Ham'; 'Mango, Ed';

'McClymonds, Jack'; 'MCCORMACK, DONALD L. (DON) (JSC-MV)'; Mosteller-I, Ted; Mulligan-I, Melanie; Nguyen-I, Bao; 'O'Farrell Mike'; 'Ortiz Carlos'; 'Otte Neil'; 'Otto, Scott'; 'Page, Robert'; Payne-I, Michael; 'Ramirez, Juan'; Revay, Kenneth P; 'Rieckhoff, Tom -PC'; 'Rieckhoff, Tom -UNIX'; 'Roe Ralph'; 'Schomburg Calvin'; 'Schricker, B.'; 'snichols@hq.nasa.gov'; Sofge, AI (NASA HQ); 'Speece, Robert'; Stevenson-I, Charlie; 'Stone, Jeff'; Tenbusch-I, Ken; Wells-I, Joel; Wilson, Thomas F.; Rivera, Jorge; Greenwell-I, Shawn; Oliu-I, Armando; Crisafulli, Anthony; Brewer, Raymond J; Marren, Tom; Thompson-I, Becky J.; Key, John; Lorick, Vicky K; Champagne, Lorraine C; Kent, William T. "Tim"; Spaulding-I, Jeff; Altemus-I, Steve; Mullins, Michael B; Powell, Doug; Cross, Donald G; Hammel-I, Donald; Stoner-I, Michael D; Greby, Mark J

Subject:

STS-I07 SRB Post Flight Retrieval Assessment

<107srb.pdf>

03/05/2003

STS-I07 SRB POST FLIGHT/RETRIEVAL ASSESSMENT
KSC Debris Team
20 January 2003

The BI-116 Solid Rocket Boosters were inspected for debris damage and debris sources at CCAFS Hangar AF on 20 January 2003. Overall, both boosters were in excellent condition.

ANOMALIES

None

F~IES

None

OBSERVATIONS

The TPS on both frustums exhibited no debonds/unbonds. There was minor localized blistering of the Hypalon paint.

All eight BSM aero heat shield covers had fully opened and locked, however one RH cover was bent back slightly due to parachute riser entanglement.

The forward skirts exhibited no debonds or missing TPS. RSS antennae covers/phenolic base plates were intact. All primary frustum severance ring pins and retainer clips were intact.

The Field Joint Protection System (FJPS) and the System Tunnel Covers closeouts were generally in good condition with no unbonds observed.

Separation of the aft ET/SRB struts appeared nonnal

The LH ETA ring instafoam closeout exhibited missing foam on the aft side. The areas of missing foam were sooted, indicating they came off in flight and not as the result of water impact. The largest area was approximately 3 inches in diameter by 2-1/2 inches deep. This appears to correlate with the debris seen coming from this area on the tracking films (E-220, E-222, E-223, E-224). See photo.

Aft skirt external surface TPS was in good condition. Typical blistering of Hypalon paint had occurred on the insulation close-outs and GEl cork runs.

The holddown post Debris Containment Systems (DCS) appeared to have functioned nonnally on all HDP's.

No indication of stud hang up was observed.

Armando Oliu
NASA -KSC

Missing instafoam, with sooting, from the aft side of the l.H ETA ring.



Photo 1. **LH SRB**