

**STS-105 ON-ORBIT FILM SUMMARY**  
**KSC Photo/Video Analysis Team**  
**30 August 2001**

The last film/video data, 35mm still images from the LO2 ET/ORB umbilical camera, 16mm motion picture with 5mm lens and Crew Hand-Held Still Images and video, of the External Tank after separation from the Orbiter were received and reviewed at KSC on 29 August 2001.

**SIGNIFICANT ANOMALIES**

None.

**MINOR ANOMALIES**

None.

**FUNNIES**

None.

**Observations:**

SRB separation from the External Tank appeared nominal.

ET separation from the Orbiter was normal. There was no protrusion of the EO-2 and EO-3 separation bolt.

No damage was detected on the LO2 ET/ORB umbilical disconnect, sealing surfaces, or closeout TPS. Typical ablation and divoting was noted on the vertical portion of the umbilical cable tray.

There was an 8-inch diameter divot, with foam still partially attached, on the +Y thrust strut near the forward flange.

Divot observed on the LH2 tank near the base of the LO2 feedline support bracket closeout at station Xt-1377. Missing foam (2-inches by 6-inches) observed on the LH2 tank acreage near the Xt-1270 location. Remainder of LH2 tank acreage appeared nominal.

Small divots observed on the intertank-to-LH2 tank flange between the bipods.

Evaluation of the thrust panel TPS was difficult due to lighting condition and image resolution.

No anomalies were detected in the LO2 tank acreage. The BSM burn scars were typical.

The ablation/erosion of LO2 feedline flange closeouts was typical. Two small divots observed on the feedline at approximately station Xt-1270.

35mm umbilical film had no coverage LO2 ogive section. Evaluation of this area was difficult with 16mm film and handheld imagery due to image resolution.

Armando Oliu  
NASA – KSC