

Figure 1 - Measured Temperature History on OV-103 Windward Surface during STS-26 Entry.

From Bouslog et al., Review of Boundary Layer Transition Flight Data on the Space Shuttle Orbiter, AIAA Paper 91-0741, January 1991.

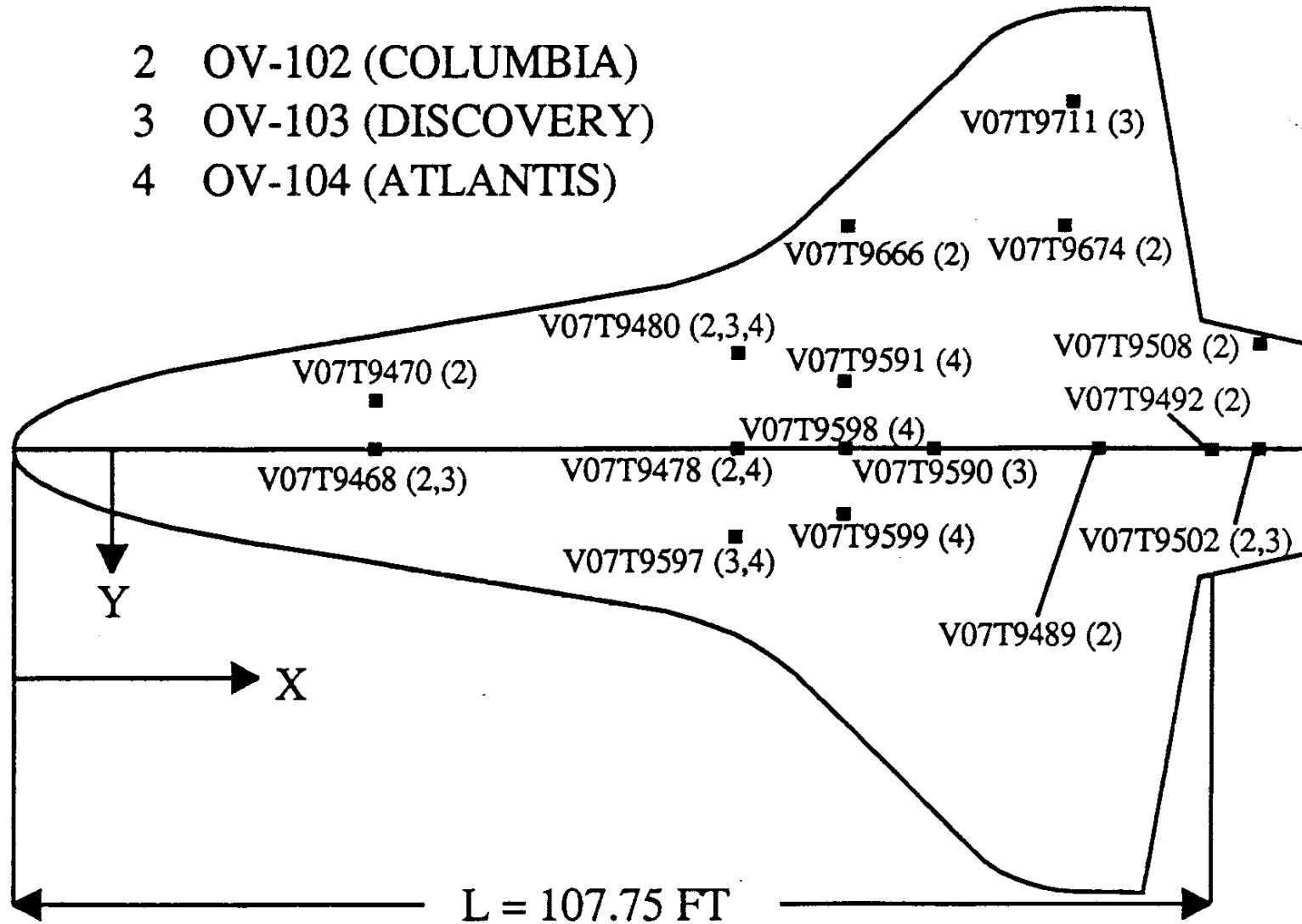
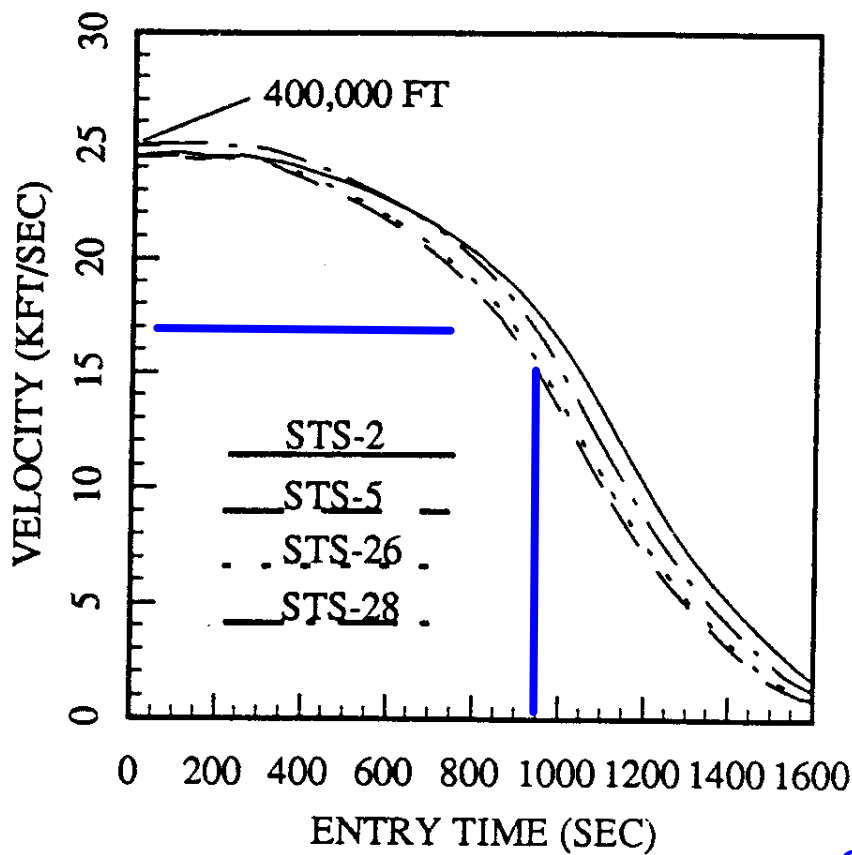
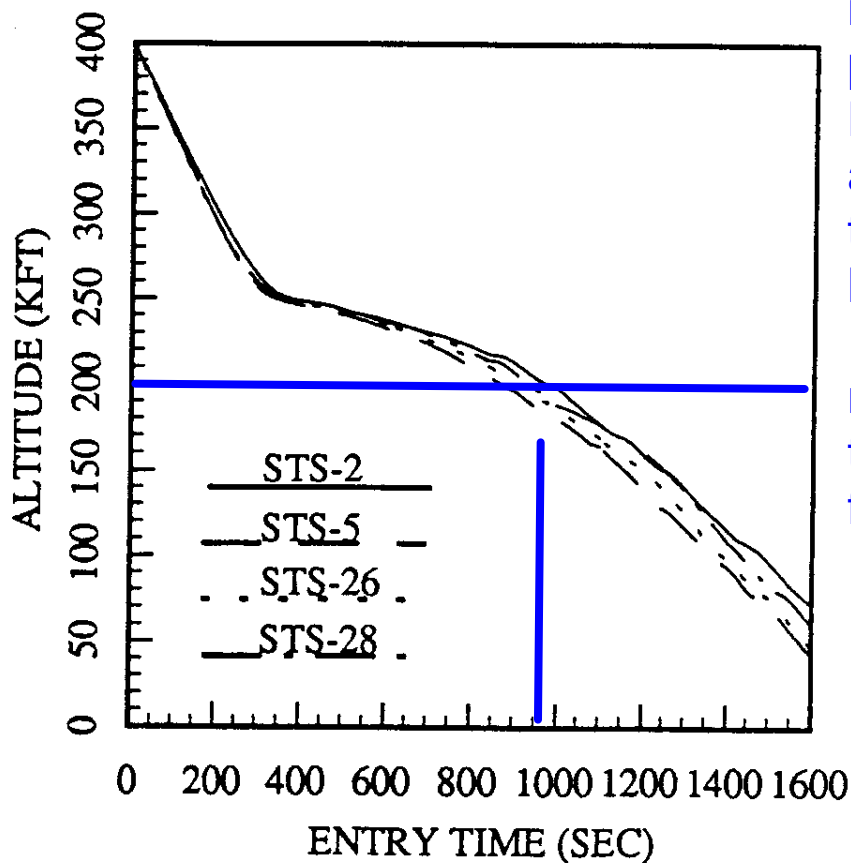


Figure 2 - Present Thermocouple Locations on Windward Surface of Orbiters.



(a) Velocity



(b) Altitude

From Bouslog et al.,
Review of Boundary
Layer Transition
Flight Data on the
Space Shuttle
Orbiter, AIAA Paper
91-0741, January
1991.

Columbia loss at
203kft, 12500
mph, Mach 18 per
press release.
Here, 203 kft typ
at about 950 sec.,
typ about 17
kft/sec, 3.2 mps,
11600 mph. So
not far from "typ."
trajectory, good
first approx.

Figure 5 - Orbiter Entry Velocity and Altitude Histories.

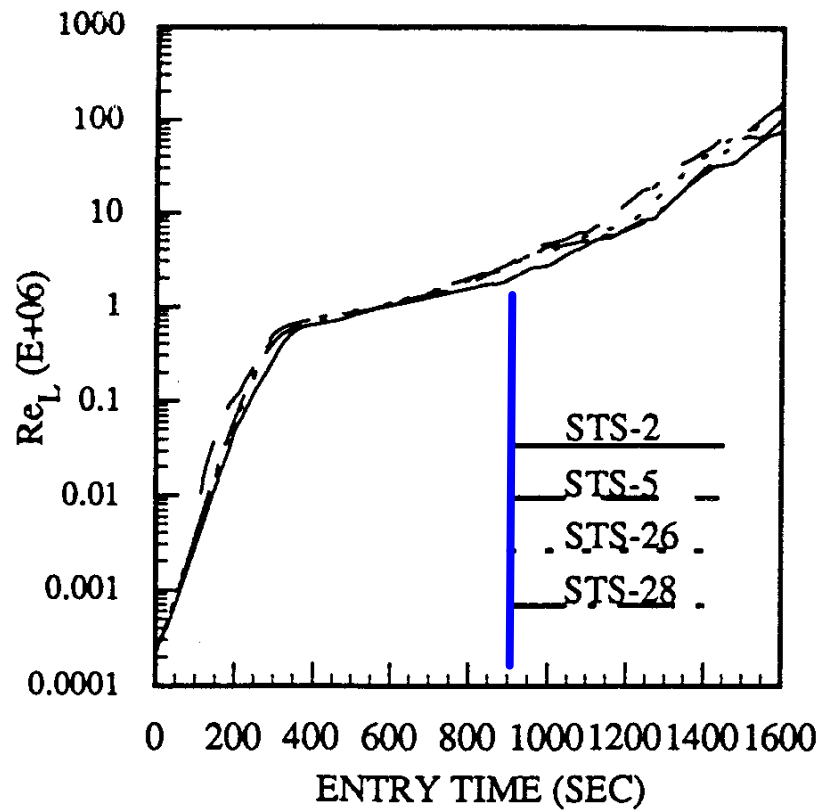


Figure 6 - Orbiter Entry Reynolds Number Histories.

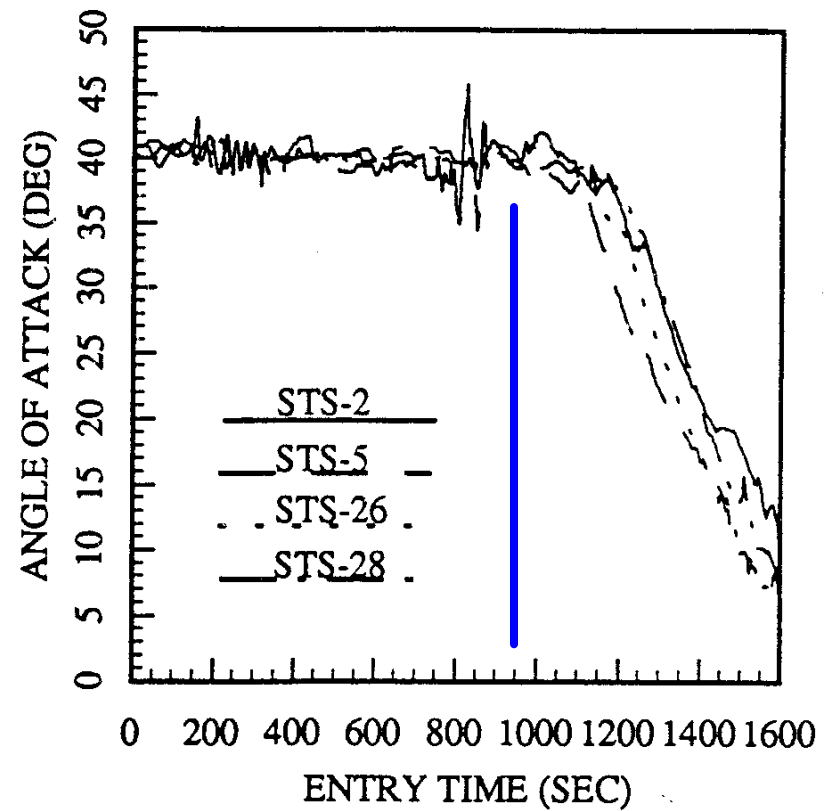


Figure 7 - Orbiter Entry Angle-of-Attack Histories.

From Bouslog et al., Review of Boundary Layer Transition Flight Data on the Space Shuttle Orbiter, AIAA Paper 91-0741, January 1991.

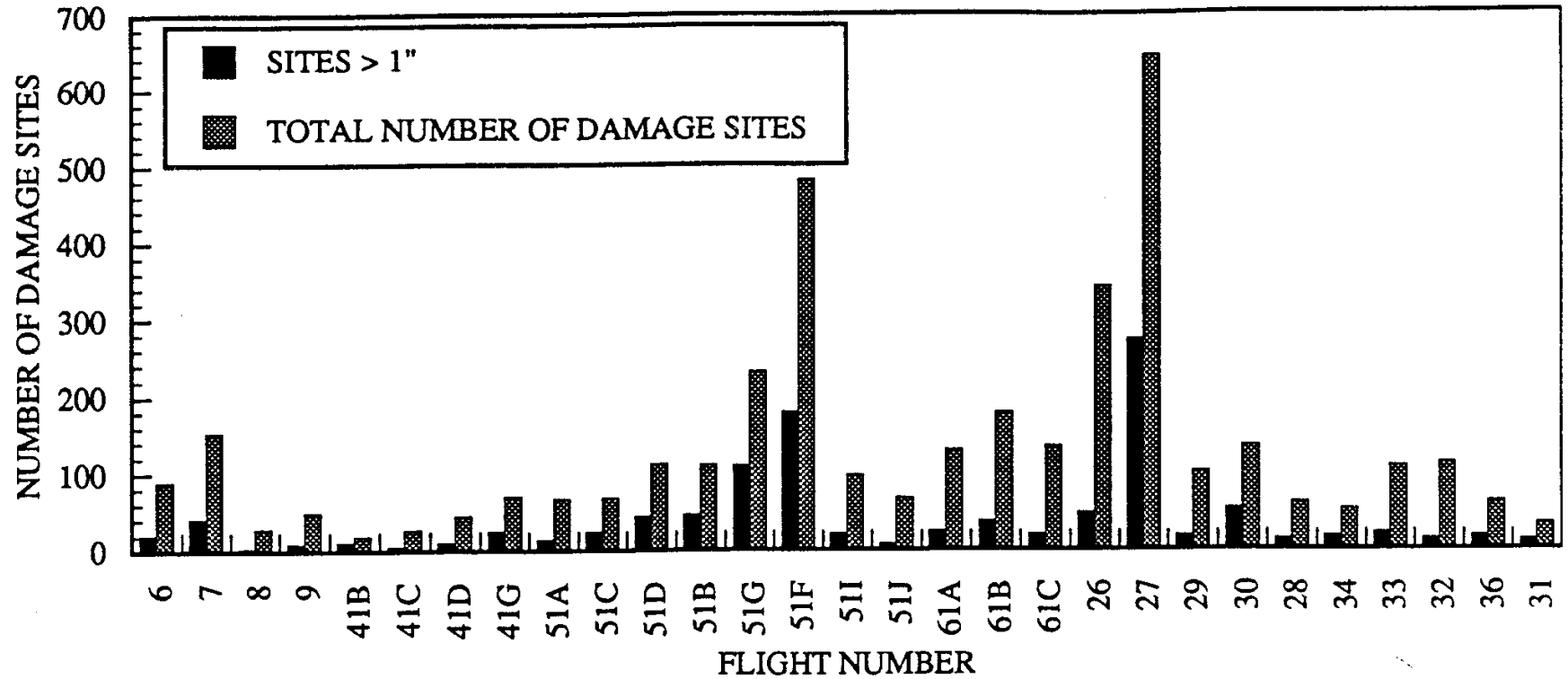


Figure 8 - Summary of Orbiter Windward Surface Tile Damage.