

Figure 2.- Temperature control points.

From "Flight Test Derived Heating Math Models For Critical Locations on the Orbiter during Reentry", by Hertzler and Phillips, pp. 703-718 in NASA CP-2283, part II, Shuttle Performance, Lessons Learned, 1983.

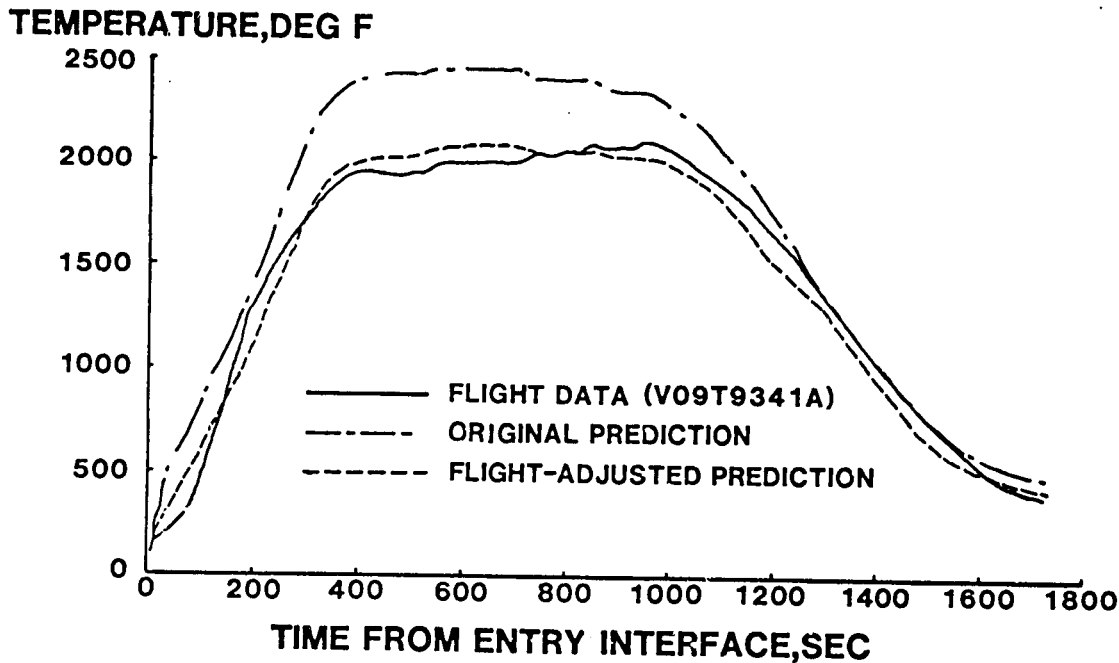


Figure 4.- Lower-surface temperature comparison - forward location (X/L = 0.02). STS-2.

From "Flight Test Derived Heating Math Models For Critical Locations on the Orbiter during Reentry", by Hertzler and Phillips, pp. 703-718 in NASA CP-2283, part II, Shuttle Performance, Lessons Learned, 1983

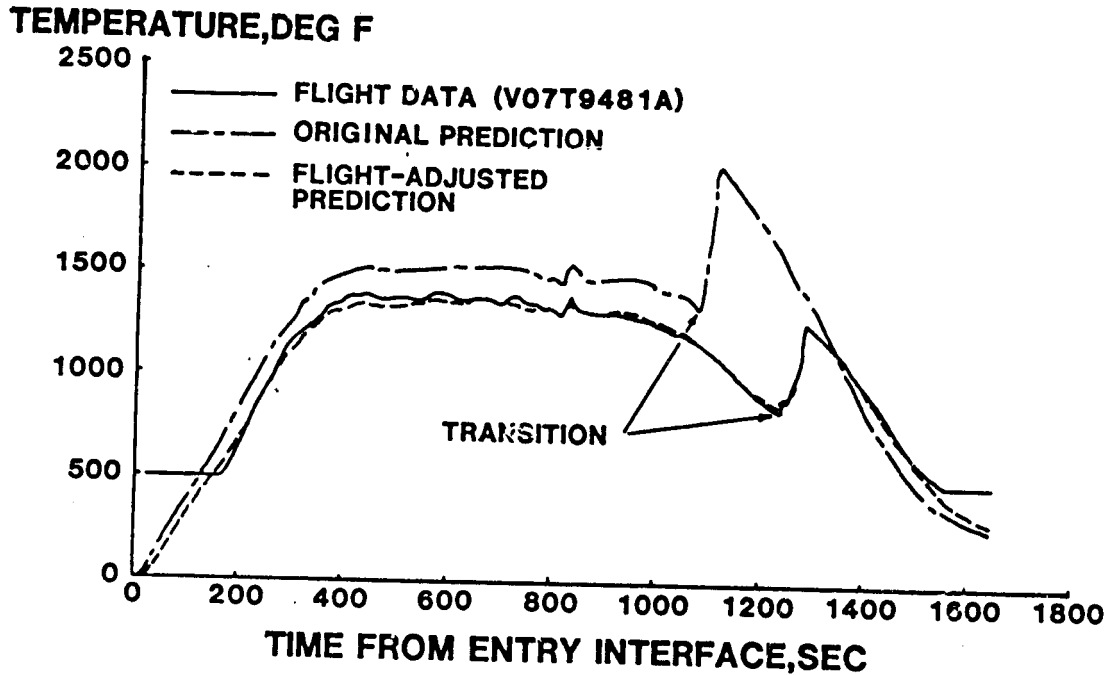


Figure 6.- Lower-surface temperature comparison - aft location (X/L = 0.7 centerline). STS-2.

From "Flight Test Derived Heating Math Models For Critical Locations on the Orbiter during Reentry", by Hertzler and Phillips, pp. 703-718 in NASA CP-2283, part II, Shuttle Performance, Lessons Learned, 1983

TEMPERATURE, DEG F

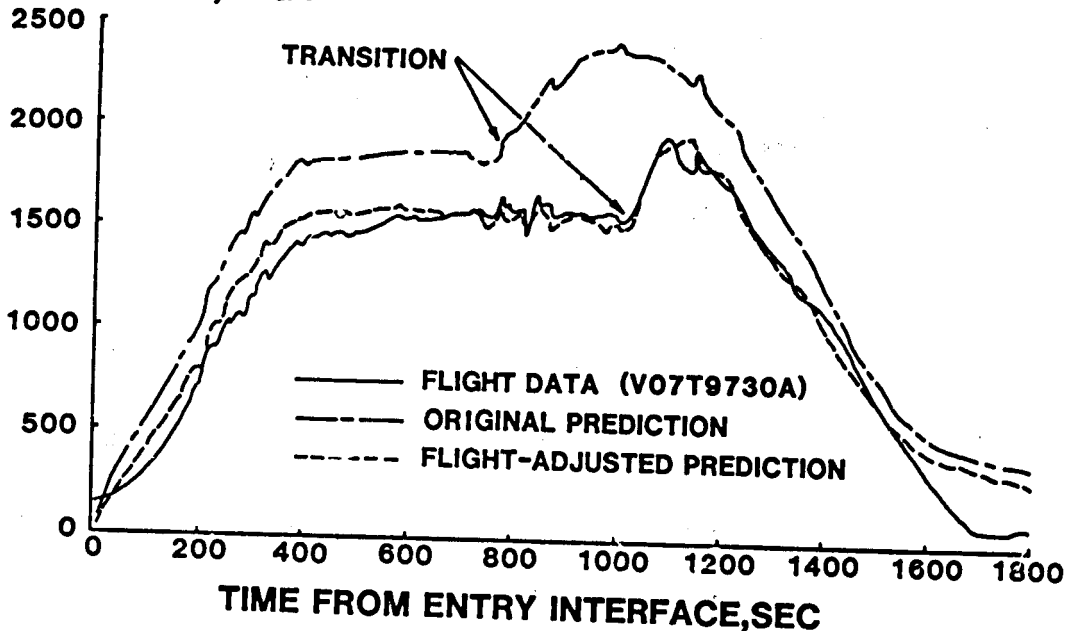


Figure 8.- Control surface temperature comparison -
elevon tip. STS-2.

From "Flight Test Derived Heating Math Models For Critical Locations on the Orbiter during Reentry", by Hertzler and Phillips, pp. 703-718 in NASA CP-2283, part II, Shuttle Performance, Lessons Learned, 1983

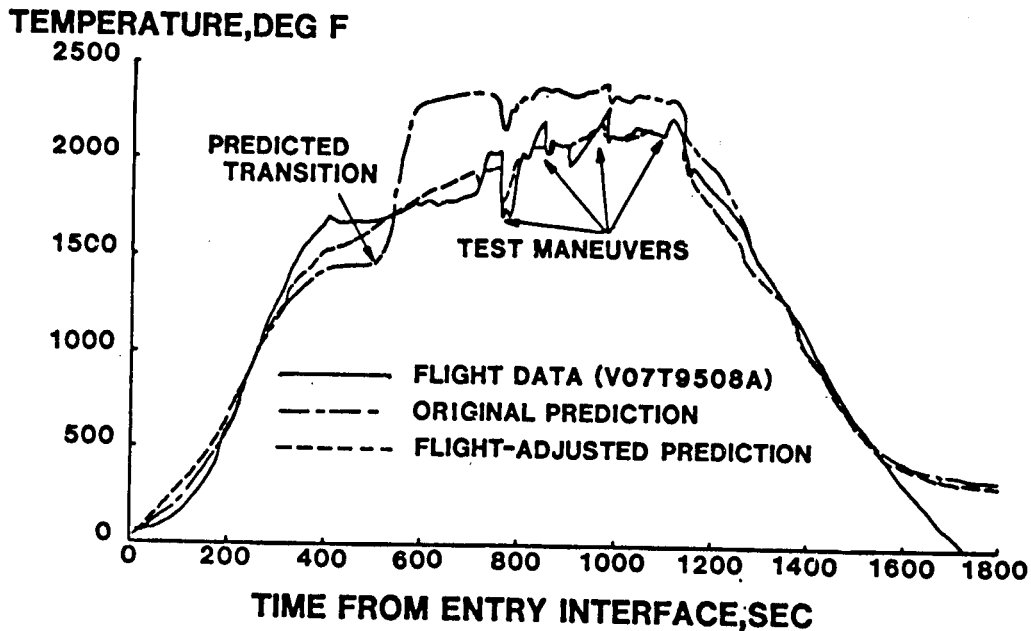
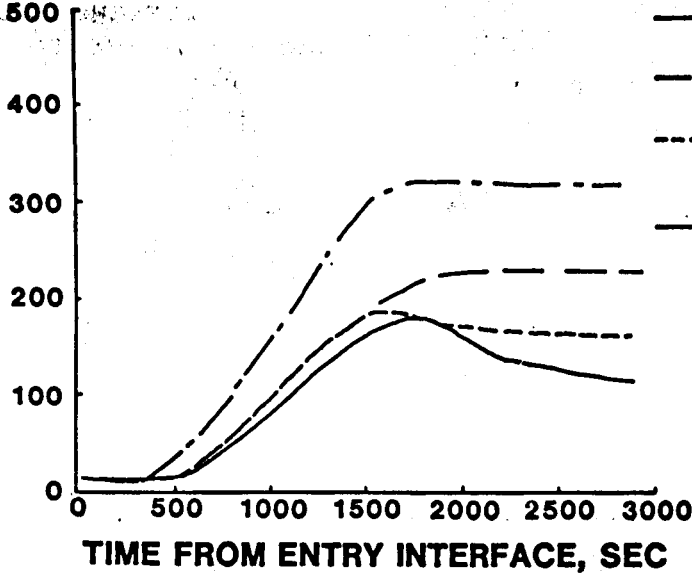


Figure 10.- Control surface temperature comparison - bodyflap edge. STS-2.

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TEMPERATURE, DEG F



— FLIGHT DATA
(V34T9117A)
- - - ORIGINAL
PREDICTION
- - - FLIGHT-ADJUSTED
PREDICTION
with cooling
— FLIGHT-ADJUSTED
PREDICTION
without cooling

Figure 11.- Lower-surface bondline temperature comparison -
aft location (X/L = 0.7 centerline). STS-2.

From "Flight Test Derived Heating Math Models For Critical Locations on the Orbiter during Reentry", by Hertzler and Phillips, pp. 703-718 in NASA CP-2283, part II, Shuttle Performance, Lessons Learned, 1983

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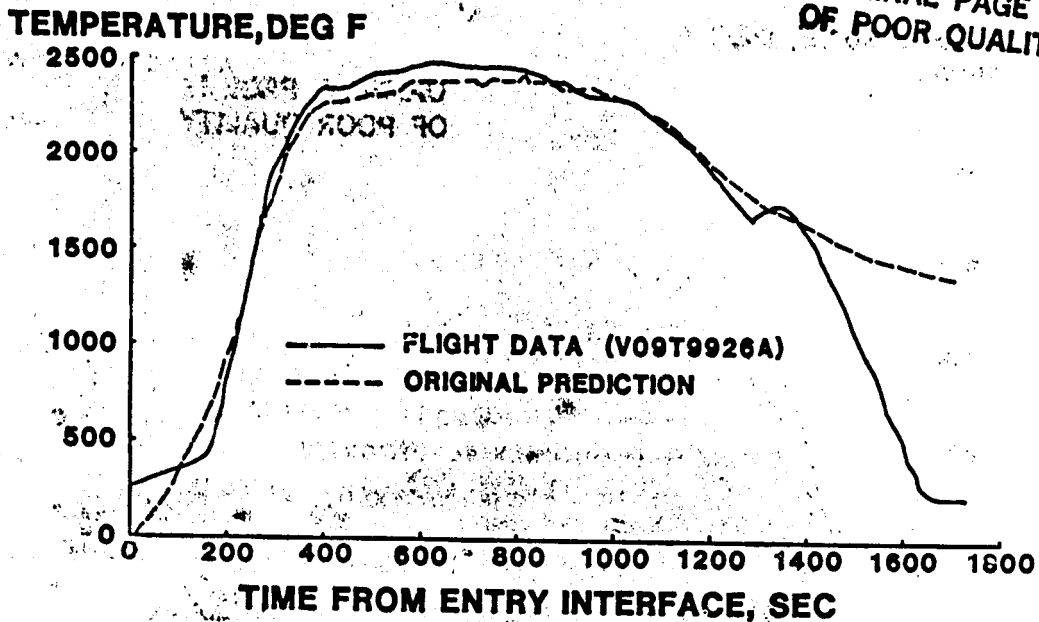


Figure 15.- Wing leading-edge temperature comparison - 55 percent semispan location. STS-2.

From "Flight Test Derived Heating Math Models For Critical Locations on the Orbiter during Reentry", by Hertzler and Phillips, pp. 703-718 in NASA CP-2283, part II, Shuttle Performance, Lessons Learned, 1983

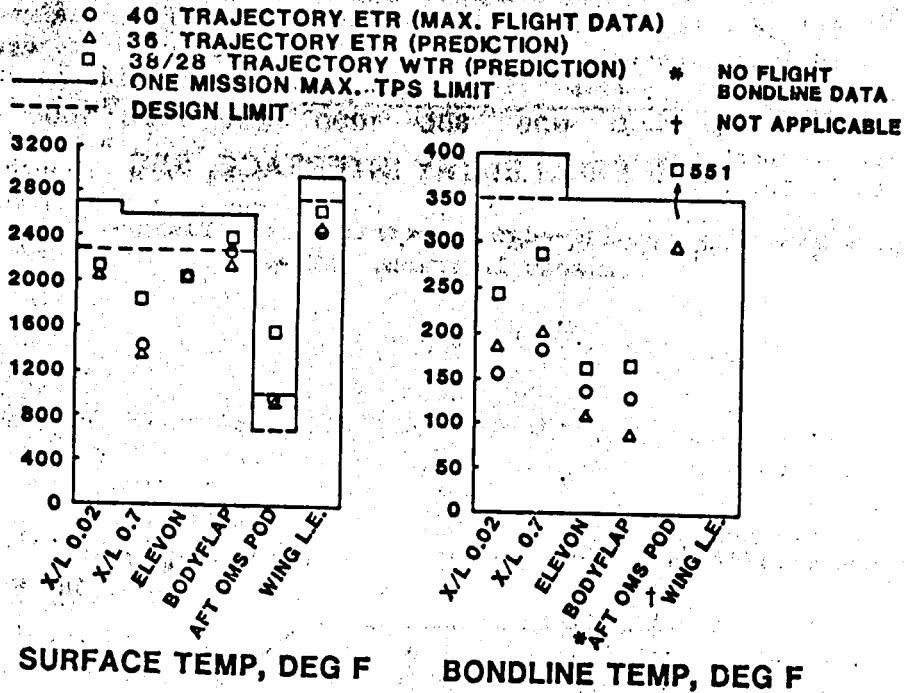


Figure 17.- Maximum temperature comparison.

From "Flight Test Derived Heating Math Models For Critical Locations on the Orbiter during Reentry", by Hertzler and Phillips, pp. 703-718 in NASA CP-2283, part II, Shuttle Performance, Lessons Learned, 1983