

of the beam and function of the instrument. However, the spring constant of the mass spring considerably reduces the sensitivity of the system.

This anomaly is closed.

15.4.2 Surface Electrical Properties Receiver Temperature Higher Than Predicted

The receiver temperature was about 5° F less than normal at the end of the first extravehicular activity as shown in figure 15-19. However, during the rest period between the first and second extravehicular activities, the temperature rose to 80° F instead of dropping to about 28° F

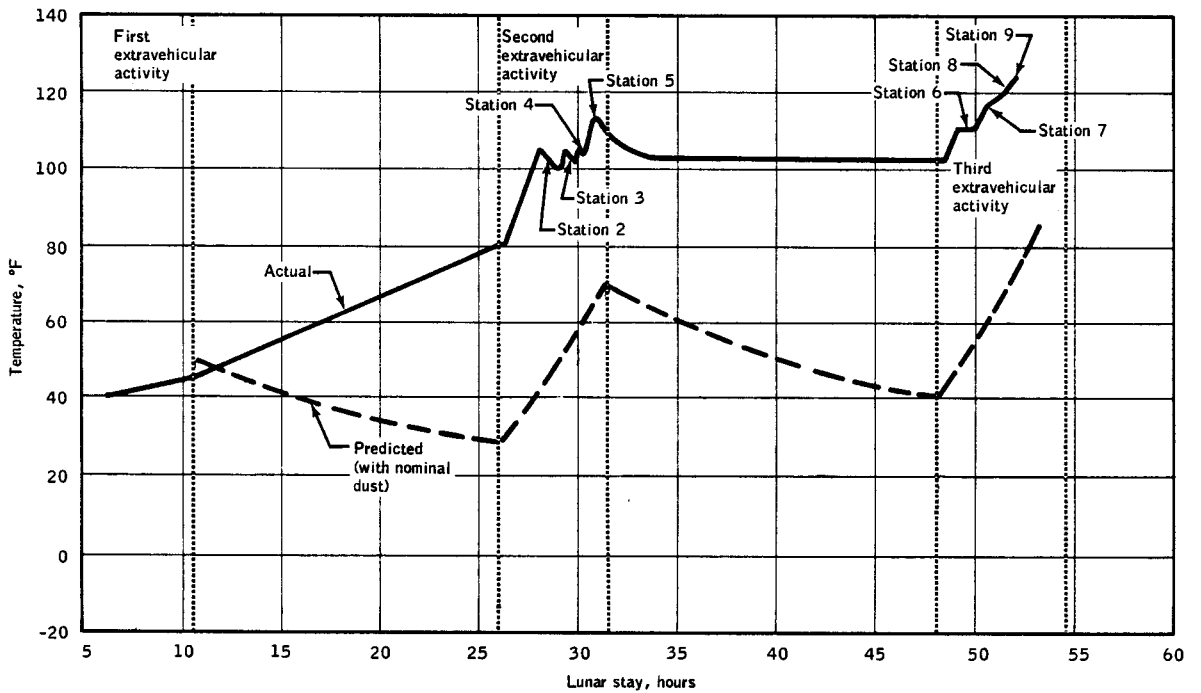


Figure 15-19.- Surface electrical properties experiment receiver temperature data.

as predicted. Between the second and third extravehicular activities, the temperature dropped about 8° F instead of the expected drop of about 50° to 60° F.

The receiver was protected by a multilayered aluminized Kapton thermal bag (fig. 15-20). The thermal bag had two flaps which protected the

optical solar reflector (mirror) on top of the receiver from lunar dust accumulation. A dust film of about 10 percent on the mirror surface could result in the indicated degradation of thermal control and a film of this amount may not be apparent to the crew.

Folding back one, or both, flaps during rest periods was to result in cooling of the receiver by radiation of heat energy to deep space. With normal system efficiency, and the experiment turned off, opening the tab A cover (fig. 15-20) at the end of the first extravehicular activity should have resulted in the predicted temperature drop to about minus 14° F by the start of the second extravehicular activity. Opening both the A and B flaps was provided for contingencies requiring more rapid cooling. This procedure was used throughout the remainder of the mission when the lunar roving vehicle was not in motion.

Cover design depended upon Velcro straps and pads to hold the Kapton flaps tightly closed to keep out dust and sunlight (fig. 15-20). The

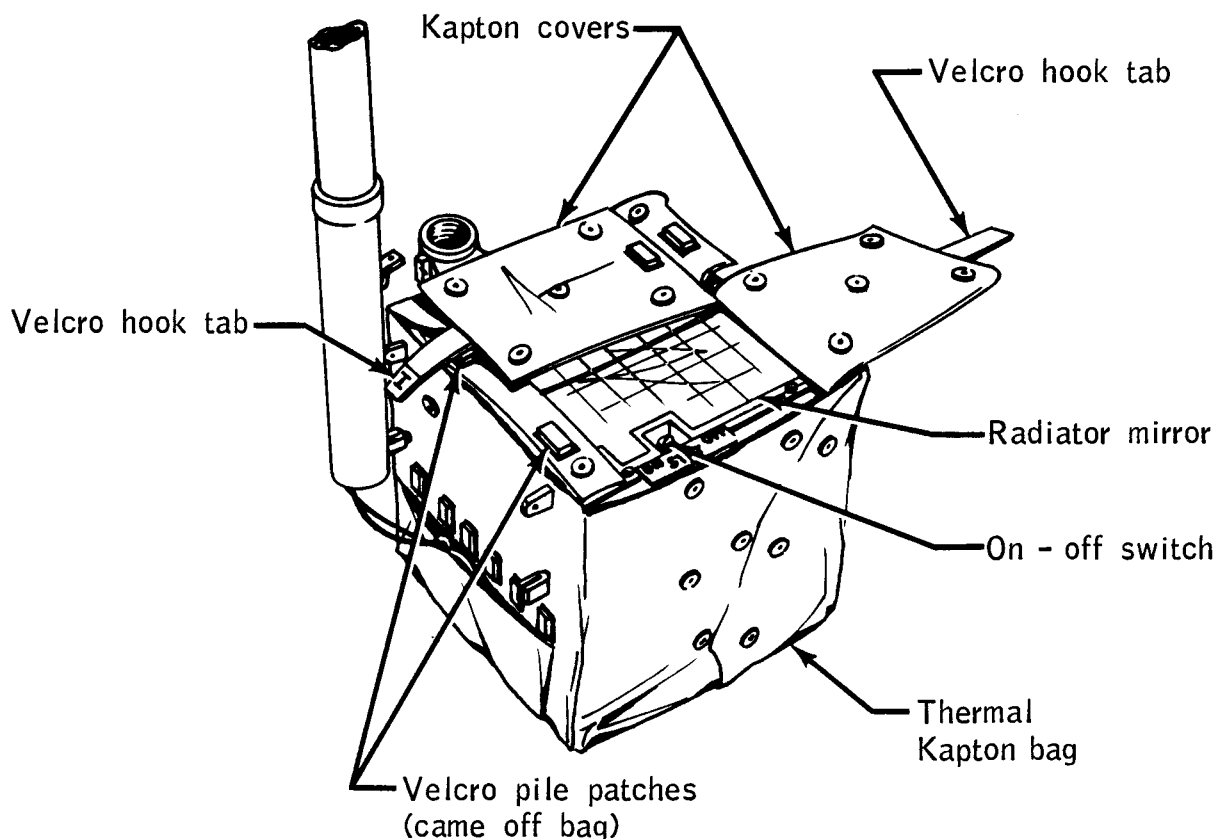


Figure 15-20.- Surface electrical properties experiment receiver.

