ERRATA

Frank Kreith, "Thermal Design of High-Altitude Balloons and Instrument Packages," published in the August, 1970, issue of the JOURNAL OF HEAT TRANSFER, TRANS. ASME, Series C, Vol. 92, No. 3, pp. 307–332.

On page 329 immediately preceding the section "Summary" the following paragraph should be inserted:

The thermal analysis presented in this paper was modified as shown in reference [97] to design and test two balloon-borne instrument packages. A test flight was made by NCAR on April 24, 1968, with a 30,000-cu-ft balloon to an altitude of 70,000 ft, carrying two simulated instrument packages with different coatings. The instrument packages are shown schematically in Fig. 26 with the left side of the platform covered with aluminum foil and the right side covered with a mylar-aluminum laminate. On both sides, the temperatures at the top and the bottom surface of the styrofoam body were measured by means of thermistors. The results of these tests are described in detail in reference [97], and Fig. 27 presents a summary of the temperature versus time history of the balloon package at float. The greatest sources of uncertainty in predicting the temperatures were the values for the absorptances and emittances of the aluminum foil and mylar-aluminum laminate covering the surfaces. Within the uncertainty introduced by the lack of precision with which these properties were known, the temperature measurements obtained in this experimental flight agreed with the analytically predicted results.