

Analyzed Report 18

The AVHRR channel 1 (0.63 microns), channel 2 (0.86 microns), channel 3 (3.7 microns), and channel 4 (11 microns) data were used in the analysis. The effects of aerosols on the microphysical characteristics of marine stratocumulus clouds can have a significant impact on climate processes through modification of cloud radiative properties. The results of comparisons between aircraft-measured microphysical characteristics and satellite-detected radiative properties of marine stratocumulus clouds are presented. Of particular concern is the potential for observing variations of cloud characteristics that might be related to variations of available aerosols. Cloud microphysical data were obtained by instruments on the NCAR Electra during cloud-penetrating missions in support of the field operations from 29 June to 19 July 1988. These results are extracted from Mineart (1988) and Durkee and Mineart (1989) where the analysis procedures and a full discussion of the observations are presented. Due to the space available, only a brief description of the results is presented.

