

SPACE DEBRIS SYMPOSIUM (A6)
Measurements and Space Surveillance (1)

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TIME-RESOLVED INFRARED SPECTROPHOTOMETRIC OBSERVATIONS OF FENGYUN 1C AND
ASSOCIATED RESIDENT SPACE OBJECTS

Abstract

We have collected thermal infrared spectra data on the Fengyun 1C satellite prior to its destruction, and on a number of associated pieces, at the AMOS observatory AEOS telescope. The thermal-IR spectra of these low-earth orbit objects acquired by the Broadband Array Spectrograph System (BASS) span wavelengths 3 to 13 μm and constitute a unique data set, providing a means of estimating, as a function of time, object fluxes, temperatures and emissivity-area products. Preliminary analysis indicates that while some of the ensemble characteristics vary over several orders of magnitude, general trends can be discerned, and specific information can be gleaned on the objects.

We describe briefly the nature and status of the instrumental programs used to acquire the data, our data of record, our data analysis techniques, and our current results, as well as future plans.

This abstract is for acceptance purposes only; not for publication.