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E7.3-11029

CR-133861

Covering the period of 1 June - 31 July 1973 for the:

"Study to Demonstrate the Feasibility of and Determine the Optimum
Method of Remote Haze Monitoring by Satellite."

This contract is ERTS-A proposal number SR 230, GSFC identification
number PR 173.

There are no problems impeding the progress of the investigation.

Accomplishments during this period.

As much ground truth data as weather permitted were obtained
during ERTS-1 passes over our test area.

<u>Data</u>	<u>Data Obtained*</u>	<u>Notes</u>
12 June	a) b)	Clouded over
30 June	a) b)	Clouded over
18 July	a) b) c) d)	Partly cloudy

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- * a) Visibility data from airports
b) Air Pollution Control District Data
c) Aureole Monitor
d) Visual and Photographic data
Altitude of the top of the Haze Layer
Vertical temperature profiles

E73-11029) STUDY TO DEMONSTRATE THE
FEASIBILITY OF AND DETERMINE THE OPTIMUM
METHOD OF REMOTE HAZE MONITORING BY
SATELLITE (Aerospace Corp., Los
Angeles, Calif.) 2 p HC \$3.00 CSCL 04B

N73-31333

Unclas
G3/13 01029

a) and b) are obtained from outside sources: c) and d) are actively gathered by the contractor specifically for this analysis.

In the preceding progress report we presented brightness histograms of the same geographical area made from the 21 October and the 8 November data. The area that was analyzed was quite hazy on 21 October and quite clear on 8 November. There were significant differences in the histograms of the hazy day and the clear day. Some aspects of these differences were surprising, leading us to wonder if the calibration of the multi-spectral scanner might have changed between these two passes. We made more histograms for areas that were known to be clear, haze free, on these same two frames, and found these histograms to be very much alike. We also made histograms of other areas that were known to be hazy on 21 October and clear on 8 November. These showed differences very much like the differences seen earlier. Therefore, we believe that the earlier results are real and that the multi-spectral scanner was well behaved during these two passes.

The process of averaging the power spectra of several adjacent lines, in order to increase the signal-to-noise ratio, is in progress but has not been completed.

Accomplishments planned for the next reporting period:

We will complete the averaging of the power spectra, and compare the results for the hazy day with the clear day to determine differences in the power spectra of the various bands caused by haze. We will attempt to more accurately define the variations in brightness values caused by haze and to understand these observed variations in terms of physical parameters.

No publications were prepared during the reporting period.

There are no changes recommended in operations and no changes contemplated or requested in standing order products.

No ERTS Descriptor Forms were submitted.

No Data Request Forms for retrospective data were submitted.