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SKYLAB A PROPOSAL AEROTRIANGULATION WITH VERY SMALL SCALE  
PHOTOGRAPHY - EREP INVESTIGATION NO. 459  
CONTRACT NO. T-4110B

Principal Investigations Management Office  
Lyndon B. Johnson Space Center  
Technical Monitor - Mr. Roger D. Hicks

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY  
Rockville, Maryland 20852

MORTON KELLER - Principal Investigator

Analytic aerotriangulation operations are being conducted using photography provided by the SKYLAB S-190B Earth Terrain Camera. This photography consists of a strip of 12 photographs extending from Charlotte, North Carolina, to the Rappahannock River in Virginia. U. S. Geological Survey quadrangles and positions and elevations determined by NOAA/NOS for airport runway ends and aeronautical aids to navigation are being used to provide office-identified control located primarily along the perimeter of the area covered by the SKYLAB photography. Approximately 30 horizontal and vertical control stations have now been office-identified on the photographs.

The preliminary computations have progressed through: 1. Image coordinate refinement and three-photo orientation; 2. Secant plane coordinate transformation; 3. Strip adjustment to ground control; and 4. Block adjustment. The inherent errors in using office-identified control make it necessary to perform numerous solutions involving different combinations of control and weights. As of this report, the maximum positional error occurring at a withheld control station is less than 60 meters. Efforts are continuing to reduce this figure.

Morton Keller  
Photogrammetric Research Branch  
Coastal Mapping Division

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