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GEOGRAPHIC APPLICATIONS PROGRAM:
REPORTS COMPLETED AND IN PREPARATION

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GEOGRAPHIC APPLICATIONS PROGRAM:
REPORTS COMPLETED AND IN PREPARATION

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PREFACE

One product of the NASA/USGS Geographic Applications Program, the one that is perhaps the most tangible, is the collection of reports written by the various principal investigators. Since the effort has been largely one of contract research at a number of research institutions, the reports are widely scattered and often not obviously identifiable as resulting from the sponsorship of the NASA Earth Resources Program.

The purpose of the present compilation is to bring together for ready reference a list of all reports, both completed and in preparation, resulting from NASA sponsorship of the geography program. Wherever possible, complete bibliographic citations are given. Since some of the reports listed are not yet completed, citations are not all in complete form. The reason for including incomplete citations is the sponsor's need for rather rapid feed-back of information so that it can have a bearing on on-going program planning. This should, therefore, be considered a working bibliography.

The first transfer of funds from NASA for support of the geography remote sensing program was in Fiscal Year 1964 to the Office of Naval Research. The Geographic Applications Program of the USGS began in Fiscal Year 1966 when the program was transferred from ONR to USGS, maintaining the continuity of the earlier research. Reports listed in this bibliography include those from both ONR and USGS phases of the program.

Many of the reports listed have not yet reached a normal publication outlet for scientific literature. The reader is invited to inquire at the Geographic Applications Program, Office of the Chief Geographer (15), U.S. Geological Survey, Washington, D.C. 20242, for information on the whereabouts of any report listed herein.

The report citations have been assembled in five groups which serve as the basis of program organization. The breakdown within each project group is alphabetical by contractor or organizations performing the research.

1. LAND USE ANALYSIS
(NASA Task No. 160-75-01-32-10)

Objectives: To develop a land use information capability for applying remote sensor data to national, regional, and local assessments of the status of human utilization of land surface, as a basis for policy decisions by Government agencies and administrators in business and industry; to identify various categories of land use types; to determine interpretation keys for using data from spacecraft for synoptic land use mapping; to define areas of future migration and settlement potentials; and to monitor the status of cultural and natural resources.

2. URBAN AND METROPOLITAN STUDIES
(NASA Task Nos. 160-75-01-34-10 and 160-75-01-35-10)

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Objectives: To develop the capability to provide remote sensing data inputs for improvement of urban land use, for better planning and utilization of transportation systems, for urban and regional development planning, and for more efficient utilization of urban space and essential resources.

3. ENVIRONMENTAL IMPACT STUDIES
(NASA Task No. 160-75-01-16-10)

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Objectives: To develop a capability for remote monitoring of energy exchanges at the Earth's surface, and other processes and the effects which result from man's modification of his environment.

4. GEOGRAPHIC INFORMATION SYSTEMS
(NASA Task No. 160-75-01-31-10)

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Objectives: To improve the processing, analysis, and display of the large quantities of geographic information (information keyed to specific locations on the Earth's surface) obtainable from orbital sensors, through studies of the flow of geographic information from sensors to ultimate users, with emphasis on the development of automatic techniques for data extraction, storage and display wherever they are most appropriate.

5. GEOGRAPHIC ANALYSIS AND PROGRAM PLANNING
(NASA Task No. 160-75-01-30-10)

Objectives: To integrate various elements of the Geographic Applications Program; to plan for orderly progress of research, coordinate with other discipline and agency programs, analyze multi-sensor imagery for geographic content, investigate geographic applications of remote sensor data to resource management and inventory, and plan experiments for future NASA programs such as the Earth Resources Technology Satellite.

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LAND USE ANALYSIS
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University of California, Riverside - Leonard W. Bowden, Principal Investigator

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University of Kansas - David S. Simonett, Principal Investigator

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