AD-A053 673 ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG MISS F/G 14/5
GUIDANCE FOR APPLICATION OF REMOTE SENSING TO ENVIRONMENTAL MAN--ETC(U)
MAR 78 J R MAY
UNCLASSIFIED WES-INSTR-M-78-2-APP-A NL

1 OF 1
AD
A053 673

END
DATE
FILMED
6-78
DDC

AD A053673

DDC FILE COPY

INSTRUCTION REPORT M-78-2

GUIDANCE FOR APPLICATION OF REMOTE SENSING TO ENVIRONMENTAL MANAGEMENT

APPENDIX A: SOURCES OF AVAILABLE REMOTE SENSOR IMAGERY

by

John R. May

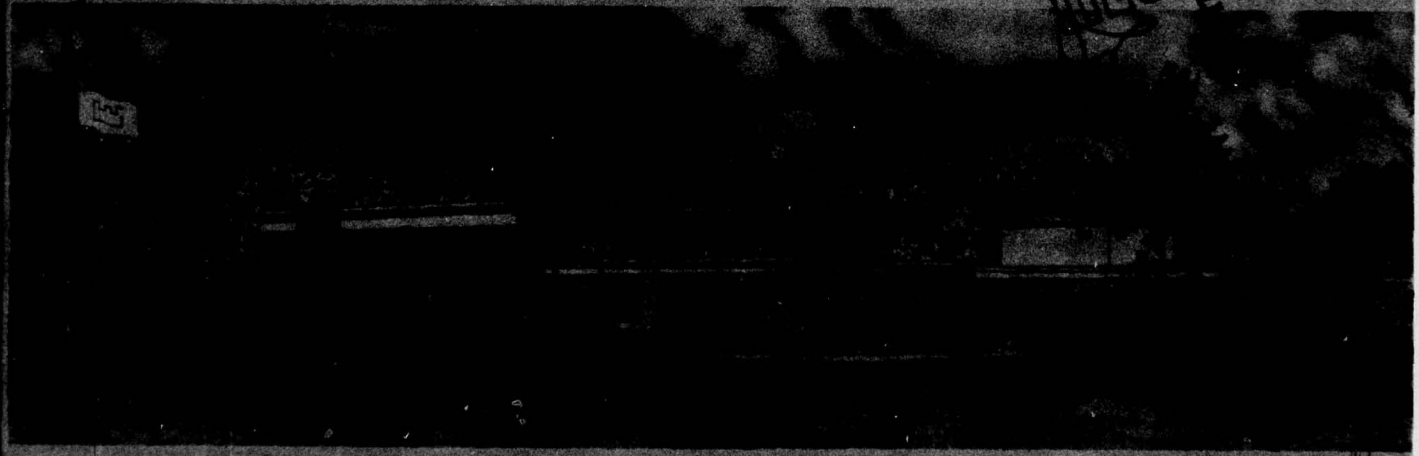
Mobility and Environmental Systems Laboratory
U. S. Army Engineer Waterways Experiment Station
P. O. Box 631, Vicksburg, Miss. 39180

March 1978

Appendix A to a Report
in Preparation

Approved for Public Release; Distribution Unlimited

DDC
PROCESSED
MAY 9 1978
DISCLOSED



Prepared for Office, Chief of Engineers, U. S. Army
Washington, D. C. 20314

Under Project 4A762720A896, Task 01, Work Unit 003

Destroy this report when no longer needed. Do not return
it to the originator.

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER WES INSTRUCTION [redacted] M-78-2 APP-A	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) GUIDANCE FOR APPLICATION OF REMOTE SENSING TO ENVIRONMENTAL MANAGEMENT. Appendix A. Sources of Available Remote Sensor Imagery.		5. TYPE OF REPORT & PERIOD COVERED Appendix A to a report in preparation 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) John R. May		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS U. S. Army Engineer Waterways Experiment Station Mobility and Environmental Systems Laboratory P. O. Box 631, Vicksburg, Miss. 39180		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS Project 4A762720A896 [redacted] 01, Work Unit 003
11. CONTROLLING OFFICE NAME AND ADDRESS Office, Chief of Engineers, U. S. Army Washington, D. C. 20314		12. REPORT DATE Mar[redacted]78 13. NUMBER OF PAGES 32 (12) 54p.
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited.

PE 62720A AS 896

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

DDC
MAY 9 1978
F

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Aerial photography
Aerial surveys
Environmental management
Remote sensing
Remote sensing data

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Results are presented of a survey conducted to determine the sources, characteristics, and availability of remotely sensed imagery held by various Federal and state governmental organizations. Data presented were collected primarily by direct contact with Federal and state agencies and through extensive examination of published documents. The remote sensor data identified as a result of the survey comprises two principal categories of data: aircraft and satellite imagery.

(Continued)

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

038 100

20. ABSTRACT (Continued).

Data collected during the survey is presented and tabulated under eight general headings: agency or organization (sources), type of imagery, range of scales, coverage areas, coverage period and frequency, availability and characteristics of imagery, products available and cost, and procedures for obtaining imagery.

Information concerning sources and availability of remote imagery held by commercial, private, and academic organizations is not presented.

1473B

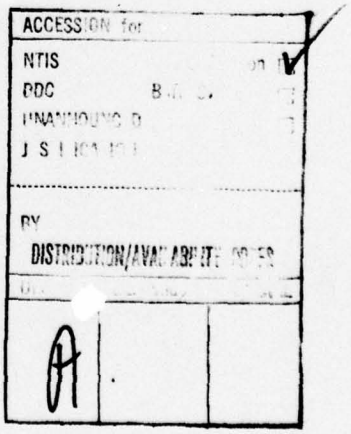
Preface

The study reported herein was conducted under Department of the Army Project 4A762720A896, "Environmental Quality for Construction and Operation of Military Facilities," Task 01, "Environmental Quality Management for Military Facilities," Work Unit 003, "Remote Sensing of the Environment," sponsored by the Directorate of Military Construction, Office, Chief of Engineers, U. S. Army.

The work was conducted during the period 1 January 1976 to 1 September 1977 at the U. S. Army Engineer Waterways Experiment Station (WES) under the general supervision of Mr. W. G. Shockley, Chief, Mobility and Environmental Systems Laboratory (MESL), and Mr. B. O. Benn, Chief, Environmental Systems Division, MESL. The study was directed by Dr. L. E. Link, Chief, Environmental Research Branch, MESL. The accumulation and formatting of information presented herein and preparation of this report was accomplished by Mr. John R. May, Terrestrial Sciences Branch, Engineering Geology and Rock Mechanics Division, Soils and Pavements Laboratory.

Special acknowledgment is made to the personnel of U. S. Government and Department of Defense organizations; state agencies; and private organizations who provided information for this study.

Director of WES during the conduct of this program and the preparation of this report was COL J. L. Cannon, CE. Technical Director was Mr. F. R. Brown.



Contents

Conversion Factors, U. S. Customary to Metric (SI) and Metric (SI) to U. S. Customary Units of Measurement

Units of measurement used in this report can be converted as follows:

Multiply	By	To Obtain
U. S. Customary to Metric (SI)		
inches	25.4	millimetres
feet	0.3048	metres
miles (U. S. statute)	1.609344	kilometres
miles (U. S. nautical)	1.852	kilometres
square feet	0.09290304	square metres
acres	4046.856	square metres
degrees (angular)	0.01745329	radians
Metric (SI) to U. S. Customary		
millimetres	0.03937007	inches
centimetres	0.3937007	inches

GUIDANCE FOR APPLICATION OF REMOTE SENSING TO ENVIRONMENTAL MANAGEMENT

APPENDIX A: SOURCES OF AVAILABLE REMOTE SENSOR IMAGERY

Background

1. Since the early 1930's, an enormous amount of remotely sensed imagery has been acquired by private, governmental, and military organizations over large parts of the world. The nature, quality, and specifications of these coverages vary considerably because of the innumerable purposes for which the imagery missions were flown. A general lack of communication exists concerning the availability of this imagery, due primarily to the scope of operations conducted by the various organizations acquiring the imagery. It is becoming increasingly important that existing imagery be identified in terms of type, coverage area, date of coverage, and the organization holding it. Because of the increasingly high costs involved in obtaining new imagery, users need to use existing imagery to the greatest extent possible. Often the users unnecessarily duplicate existing imagery coverages, primarily because they do not know that similar coverages of their areas of interest are already available. Additionally, the availability of older imagery coverages is becoming vitally important to users engaged in applications in which physical, environmental, and cultural changes, occurring over a period of time, provide significant impact to their respective investigations. Older imagery coverages constitute an important reference aid for the study of these changes. In many instances, older coverages may represent the only imagery available to users due to changes in the accessibility to certain areas of the world for political or military reasons or both.

Purpose and Scope

2. The purpose of the study was to locate and identify sources of remote sensor imagery, provide data pertaining to the specifications and

characteristics of the imagery, determine its availability, and describe procedures for obtaining it. Tables included herein summarized the results of an inventory of available imagery holdings of Federal and state organizations within the United States.

Data Collection

Methodology

3. Data were collected from 1 April 1975 through 31 January 1976. Nearly all of these data were obtained by telephone; the remainder were obtained by correspondence with the various agencies. Telephone contact with the agencies proved to be a very successful and expedient method of acquiring the desired information pertaining to agency holdings. In most instances, the information was obtained from individuals who were directly responsible for either the planning or conduct of imagery acquisition programs or were responsible for the organization or maintenance of the imagery holdings.

Sources of data

4. As mentioned previously, the survey performed to determine the availability of imagery was restricted to Federal and state organizations. The major sources of data within these two groups were:

a. Federal. Approximately 96 organizations within the Federal Government were contacted during the imagery availability survey. These organizations are primarily in the major departments and independent agencies of the Executive Branch of the Federal Government, e.g. Departments of Agriculture, Commerce, Interior, and Defense, as well as Environmental Protection Agency, Tennessee Valley Authority, etc. Only those agencies having readily available imagery products for sale or loan have been included herein. Some of the organizations contacted, while using remote imagery products of various types, obtained these products from other Federal agencies for internal use only. These particular organizations are not included in this study, because the products are more readily available to the user from the agency that originally acquired the data. Several of the Federal agencies with available imagery have geographical divisions and districts (Corps of Engineers) or regions (Forest Service and Bureau of Reclamation) that subdivide their areas of

jurisdiction within the United States. Figure A1 shows Corps of Engineers division and district boundaries and headquarters; Figure A2 shows U. S. Forest Service regional boundaries; and Figure A3 shows U. S. Bureau of Reclamation regional boundaries. Imagery available for these agencies are tabulated by appropriate division, district, or regional offices when possible.

b. State. Nearly 200 state governmental organizations were contacted during the conduct of this study. It was found that the state highway departments generally held most of the remote imagery acquired within the states. Other major state organizations active in the acquisition and storage of remote imagery are state planning offices, environmental and natural resource departments, state geological surveys, tax commissions, and water resources departments. Many of the state agencies use imagery products that are obtained from Federal agencies or, in some instances, from state agencies, such as highway departments. State sources of imagery have generally been limited to those organizations that have acquired coverages through in-house capabilities or by contracted services.

5. It should be pointed out that the sources of available imagery described herein do not represent all possible sources of federally and state-acquired imagery. However, the major sources of imagery of interest for environmental management at military installations have been identified. Users of information contained in this appendix should keep in mind that the type, number, and location of Federal and state organizations active in the field of imagery acquisition and utilization are by no means static. No attempt has been made to describe the imagery holdings of private business firms involved in engineering and photogrammetric aerial surveying. However, since these firms acquire and retain large volumes of imagery on a continuing basis, the potential user should remain cognizant of this valuable source of data.

Explanation and Use of Data

6. Data describing the location, types, characteristics, availability, and costs of remote imagery acquired and held by Federal and state agencies are contained in Tables A1-A3. Although an attempt was

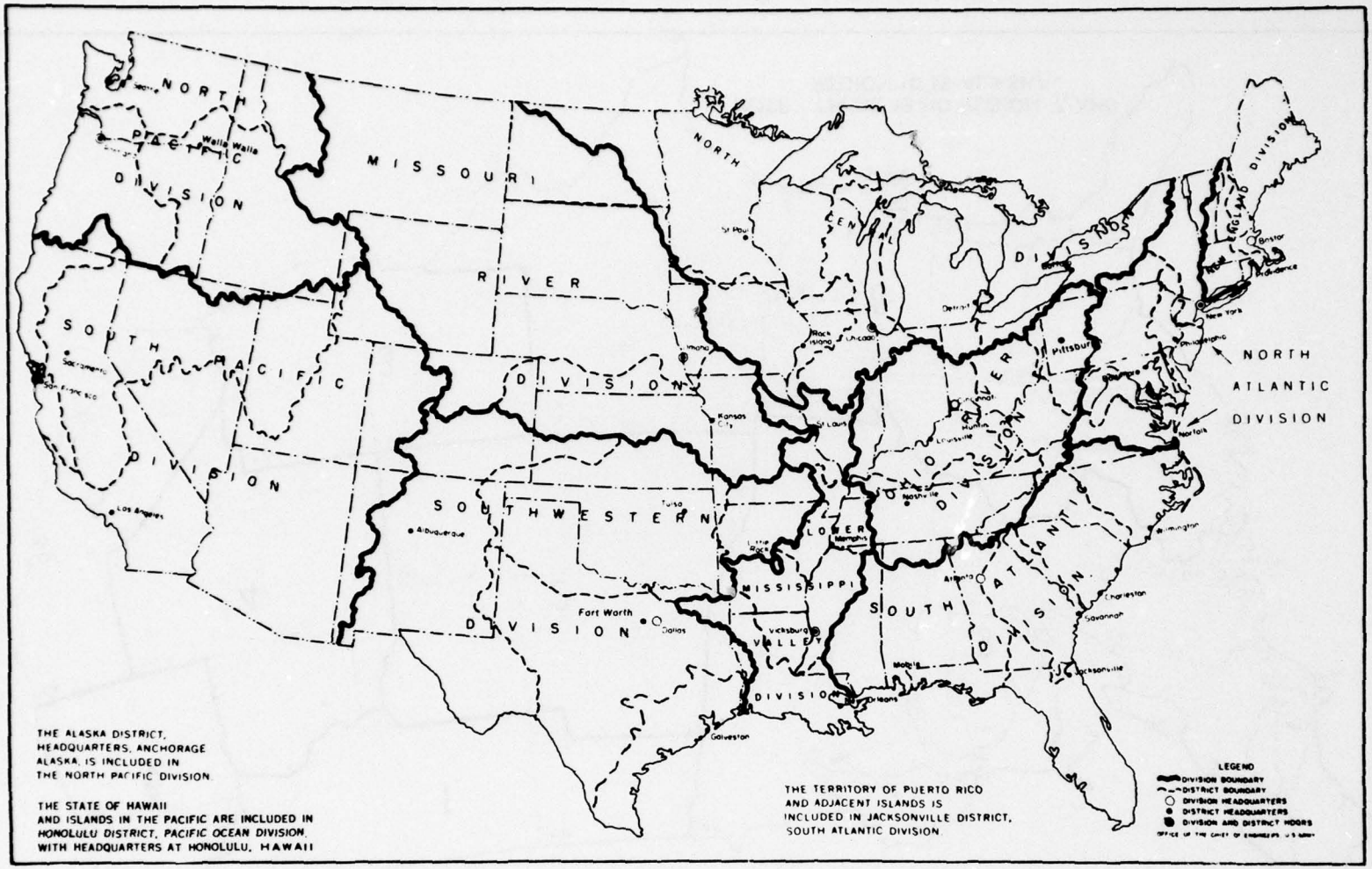


Figure A1. Corps of Engineers division and district boundaries and headquarters

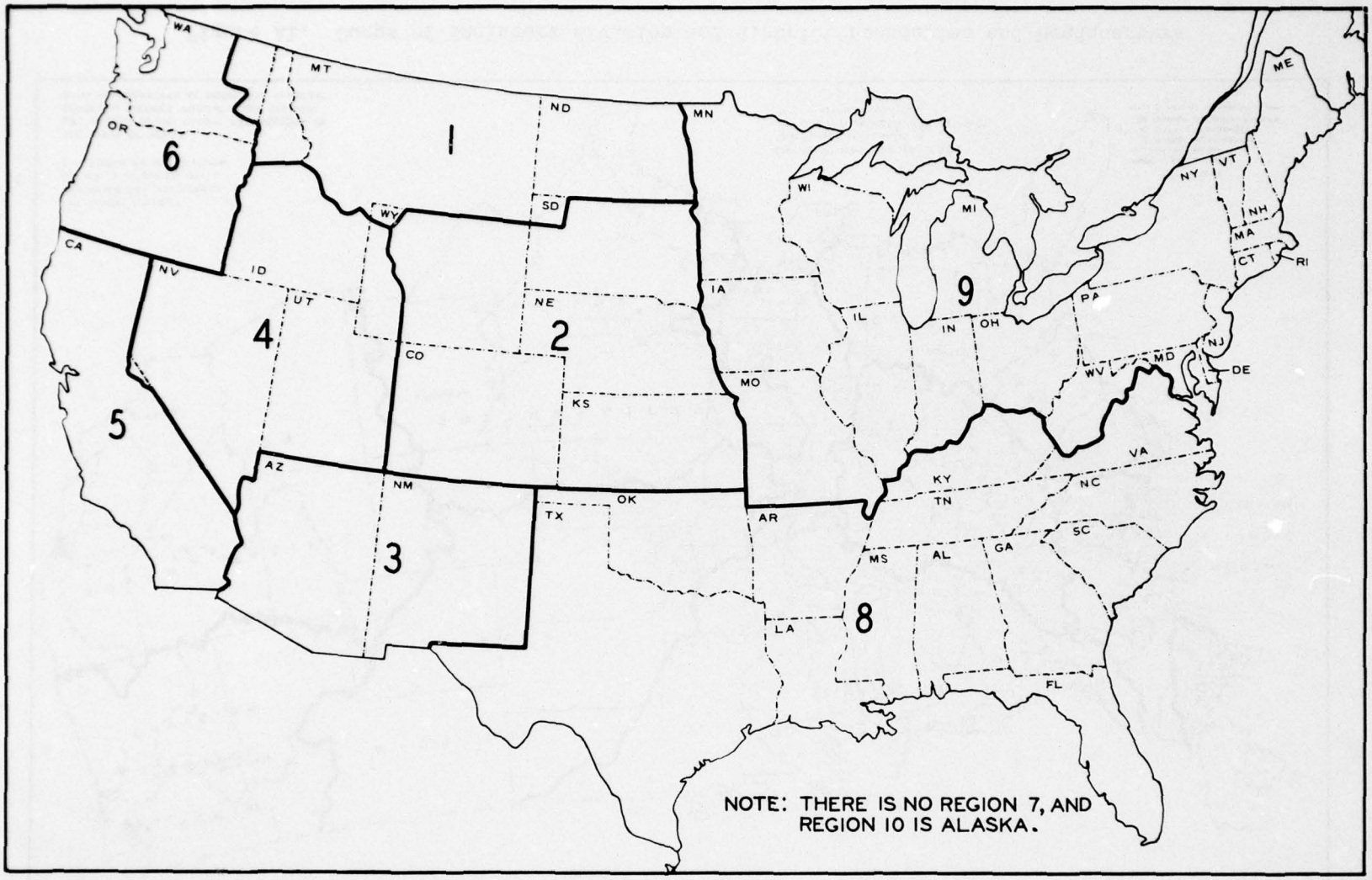


Figure A2. Boundaries of U. S. Forest Service regions

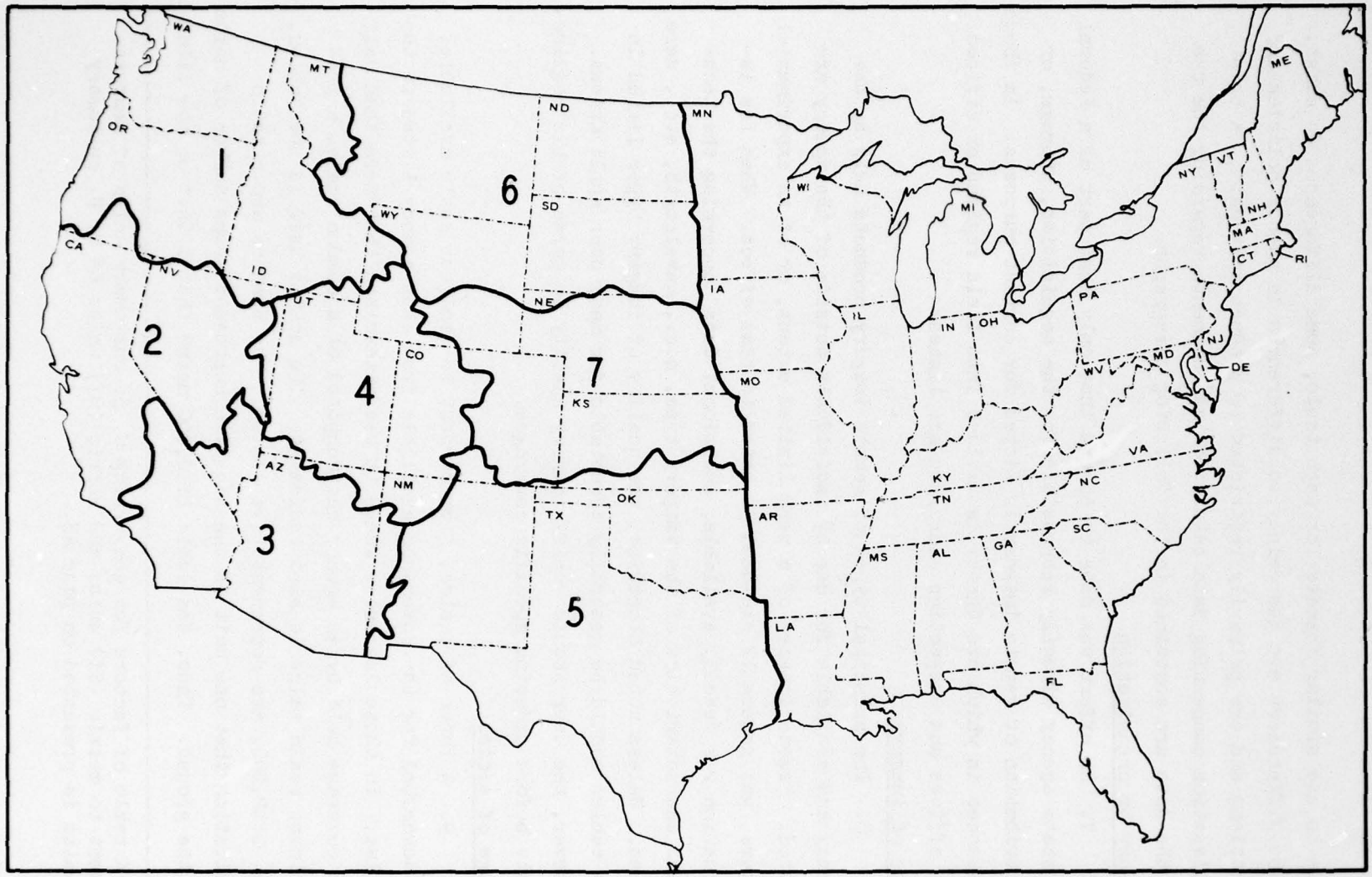


Figure A3. Boundaries of U. S. Bureau of Reclamation regions

made to use similar formats for each table, some differences do exist. These differences are due mainly to differences in agency policies and functions and are primarily restricted to product cost data. A brief explanation concerning data tabulation and comments regarding the use of the data are contained in the following paragraphs.

Agency or organization

7. An effort was made to ensure that only that part of a Federal or state agency directly responsible for the acquisition, storage, or distribution of remote imagery is listed for contact purposes. In those instances in which the agency is divided into field regions or offices, all offices and respective addresses are listed.

Type of imagery

8. The principal types of remote imagery products held by the agency and available for use by individuals outside of the agency are listed. Remote imagery of a very limited extent, or of an experimental nature, was generally excluded or noted to that effect. When the information was readily available, additional data concerning the technical characteristics of the imagery type, e.g., wavelength, etc., were given. Unless noted otherwise, the quality of imagery types listed in the tables should be generally acceptable for many user applications. However, the user should verify imagery quality in terms of his requirements before ordering specific coverages.

Range of scales

9. A range of scales, from largest to smallest scale available, is described for the coverages available from each agency listed in the tables. In those instances where it was determined that more than half the coverage held by an agency was composed of a common scale, a predominant scale value is also indicated. The scales used in the tables, e.g. 1:12,000, are representative scales. The numbers are a ratio indicating that one unit on the negative represents some number of units on the ground. Thus, the scale 1:12,000 means that 1 in.* on the film

---

* A table of factors for converting U. S. customary units of measurement to metric (SI) units and metric (SI) units to U. S. customary units is presented on page A3.

represents 12,000 in. on the ground, unless otherwise noted.

Coverage areas

10. The extent of imagery coverages held by Federal and state agencies is normally directly related to the functions of the holding agency. For example, Forest Service imagery will normally be restricted to federally owned forest lands; Corps of Engineers coverage is usually along natural and man-made waterways; state highway department coverage is largely made up of strip photography along state and Federal highway systems and block coverages of urban areas. There are, of course, variations in agency policy in regard to coverage areas. Some highway departments acquire coverages over the whole of their respective states; others never deviate from highway corridor coverage. The coverage data included in the tables are, of necessity, very general. However, the data should provide the user with sufficient information to determine whether further inquiry for more detailed information regarding specific coverage areas is warranted. Nearly all of the agencies listed maintain coverage indexes of their holdings in one form or another.

Coverage period and frequency

11. Coverage period information contained in the tables identifies the date of the imagery coverage by the year or range of years (from earliest available to the latest). Coverage frequency data provide insight into agency policy for the acquisition of new imagery and the extent of multiple coverages held by the agency. Most of the agencies surveyed during the study indicated that imagery was acquired in most instances on an "as needed" basis. Several agencies, however, carefully plan their future imagery requirements and can provide the potential user with this information. This information can be used for requesting the latest imagery coverage available. When the information was readily available, the time of the year in which the agency acquires most of its imagery was included with the coverage-frequency data. Some agencies fly new coverages during the "leaf on" or "leaf off" seasons, depending on the organization's planned application of the imagery. The Corps of Engineers obtains a great deal of imagery along waterways during low-water periods in the fall and also during

high-water periods in the spring. If the option of choosing imagery coverages acquired at various seasons of the year is open to the user, he should very carefully consider which coverage would best serve the intended application.

Availability and characteristics of imagery

12. The availability of imagery, imagery format, reproduction facilities and limitations, and types of coverage indexes available are described in this part of Tables A1 and A2, as well as miscellaneous imagery characteristics, e.g. whether imagery was obtained with vertical, oblique, or panoramic camera systems, etc. Nearly all Federal and state agencies queried during the conduct of this study indicated that their imagery holdings are available to other Federal and state agencies, either for purchase, or in some instances, on a loan basis.

13. As mentioned previously, nearly all of the agencies contacted have their imagery indexed in various ways, e.g. flight lines delineated on maps, photo indexes (showing individual, overlapping photographs arranged along flight lines), catalog indexes, and card indexes. The user must obtain copies of these indexes to select specific coverages.

Products available

14. Various imagery formats are normally available from agencies producing remote imagery. The data contained in this part of Table A1 describe the type and size of the imagery, e.g. panchromatic, 9- by 9-in.; the form in which the imagery exists, e.g. negative, contact print, glass diapositive, and positive transparency; and the unit costs. The most common format available is the 9- by 9-in. negative and contact print. Panchromatic, color, and color-infrared images are normally produced in the 9- by 9-in. format. Information on imagery format is given in Table A3 in the fourth column.

15. The costs of the products available (Table A1) are based on published cost lists that are maintained by the larger Federal agencies. The majority of Federal and state agencies do not maintain standard cost lists or descriptions of imagery holdings for the purpose of distribution to the public. These agencies normally supply information and

figure costs for reproduction of imagery on an individual request basis. Costs are generally held to the minimum necessary, with most agencies charging only for the cost of materials used. Some agencies, however, do include costs for overhead expenses in the total cost of reproduction. The user should anticipate slightly higher costs for the reproduction of imagery by contractors holding the original negatives.

Procedures for obtaining imagery

16. The data contained in the tables do not generally provide sufficient information for the direct ordering of imagery. However, information has been provided in the tables to enable potential users to make the necessary initial contact with an agency for obtaining desired imagery coverage. The principal Federal agencies engaged in large-scale imagery acquisition and distribution programs generally provide detailed ordering instructions for potential users to follow. These instructions will be found in the appropriate sections of the tables. Those agencies that acquire remote imagery primarily for internal use do not normally distribute information concerning procedures for potential users outside of the agency to utilize for ordering purposes. For this reason, detailed information pertaining to procedures for obtaining imagery from many of the agencies listed in the tables is absent. However, the titles of individuals or offices within the agency that potential users should contact initially have been identified and included in the tables. The use of specific names of individuals has been avoided wherever possible because of possible changes in personnel in the future.

17. Two or three contacts will probably be necessary to obtain any imagery from the agencies. Preliminary contacts with the agencies can be minimized if the user can provide as much information as possible to the agency he contacts. Most of the agencies contacted during the conduct of this study stressed the value of locating the area of interest on some type of map. If maps are not available, the user should make a rough sketch map of the location for which he desires coverage. If the user has obtained index material from the agency, the date of photography, roll number, print number, and project symbol

should be included with his order. The user should indicate the size of the print desired (9- by 9-in. contact print or some enlargement) and the material on which the image is to be printed, e.g. single- or double-weight paper or transparency. When appropriate, the user should describe the purpose for which the imagery is to be used. The agency may detect any obvious discrepancies between the ordered product and the projected use. Stereo coverage or pictorial coverage should be indicated.

Agency	Imagery			
	Type	Range of Scales	Coverage	
			Areas	
Agricultural Stabilization and Conservation Service (ASCS) Aerial Photography Field Office 2511 Parley's Way Salt Lake City, Utah 84109	Panchromatic Color IR	1:10,000 to 1:120,000 Panchromatic Predominant scale is 1:20,000; however, the present trend is to obtain new photography at 1:40,000 scale Color IR Predominant scale is 1:120,000	Panchromatic coverage of approximately 80 percent of the land area of the U. S., including Hawaii. No coverage is available for Alaska Color IR corn-blight photography coverage of the major corn growing regions of the U. S. (primarily in the midwestern states)	Panch perio prese taine ting new yearl ASCS to 19 the Color cover early the l
Soil Conservation Service (SCS) Cartographic Division Federal Building Hyattsville, Md. 20782	Panchromatic	1:3,000 to 1:75,000 Predominant scale-1:48,000	All 50 states, District of Columbia, and Puerto Rico. Area of coverage varies considerably from one state to another	Cover middle No fi area as re timbe
U. S. Forest Service (USFS) Division of Engineering Washington, D. C. 20250 USFS Regional Offices (See map--) Region 1 - Regional Forester, U. S. Forest Service, Federal Building, Missoula, Mo. 59801 Region 2 - Regional Forester, U. S. Forest Service, Federal Center Building 85, Denver, Colo. 80225 Regions 3 and 4 - Regional Forester, U. S. Forest Service, Federal Building, 324-25th St., Ogden, Utah 84401 Region 5 - Regional Forester, U. S. Forest Service, Printing and Reproduction Section-Room 548, 630 Sansome Street, San Francisco, Calif. 94111 Region 6 - Regional Forester, U. S. Forest Service, P. O. Box 3623, Portland, Oreg. 97208 Region 8* - Regional Forester, U. S. Forest Service, 1720 Peachtree Road, NW, Atlanta, Ga. 30309 Region 9* - Regional Forester, U. S. Forest Service, 633 W. Wisconsin Avenue, Milwaukee, Wis. 53203 Region 10 - Regional Forester, U. S. Forest Service, P. O. Box 1628, Juneau, Alaska 99801	Panchromatic Black-and-white IR Color Color IR	1:6,000 to 1:80,000 Predominant scale-1:15,840	National Forest areas throughout the U. S.	Nation ally f Freque variab Servic be flo vals o areas needed cial p Covera 1954 t

Note: There is no Region 7.

* Requests for photography in Regions 8 and 9 should be directed to the U. S. Forest Service, Washington, D. C.

Table A1

Summary of Available Remote Sensing Imagery--Federal Agencies

Aircraft

Imagery			Products Avail		
Coverage					
Areas	Period and/or Frequency	Availability and Characteristics	Type	Format	Size
nchromatic coverage of approximately 80 percent the land area of the U. S., including Hawaii. coverage is available for Alaska lor IR corn-blight photography coverage of the jor corn growing regions of the U. S. (primar- in the midwestern states)	Panchromatic photography coverage period ranges from 1942 to the present. New photography is obtained about every 6 yr., resulting in about 300,000 miles of new photography being flown yearly. Photography acquired by ASCS and its predecessors prior to 1942 has been transferred to the National Archives Color IR corn-blight photography coverage was obtained during the early 1970's, primarily during the late spring and early summer	Various types of prints and other services are available on request. Enlargements can be obtained at various scales on paper ranging in size from 9-1/2 by 9-1/2 in. to 38 by 38 in. Other available products include copy negatives, glass plates, and film positives for light table use and for making diazo or blueprint copies Photography is available for each of the years it was flown Photo indexes are available for each county in the U. S., where photography has been flown. The indexes are usually at a scale of 1 in. to the mile on 20- by 64-in. paper. One or more indexes may be required to give complete coverage for a county Microfilm duplicards of all ASCS photo indexes of photography obtained during the period 1942-1974 are available on request. Current U. S. coverage involves about 16,000 cards Color IR corn-blight photography is available in print or positive transparency format. Enlargements are also available	Panchromatic	Contact prints	9-1/2 x 12 x 17 x 24 x 38 x
				Positive transparencies	9-1/2 x 12 x 17 x 24 x 38 x
			Photo indexes	Contact prints	20 x
				Positive transparencies	20 x
				Microfilm duplicards	--
ll 50 states, District of Columbia, and erto Rico. Area of coverage varies nsiderably from one state to another	Coverage period ranges from the middle 1940's to the present No fixed schedule for reflying area coverage. Generally flown as required for updating of soil, timber, and other resource data	SCS photography is available to all Federal agencies on request Two general types of panchromatic photography are available: controlled mosaics and individual exposures. These types are available at various scales and paper sizes Photo indexes of various scales and paper sizes are available. These indexes show the flight lines and individual, numbered exposures	Panchromatic	Contact prints	10 x 14 x 18 x 26 x 40 x
				Controlled mosaics	20 x 26 x 40 x
				Photo indexes	20 x 40 x 20 x
tional Forest areas throughout the U. S.	National forest areas are generally flown on a recurring basis. Frequency of coverages is highly variable among the nine Forest Service regions. Some areas may be flown twice yearly at intervals of several years. Many areas are also flown on an "as-needed" basis in support of special projects Coverage period ranges from about 1954 to the present	USFS photography is available on request Photographic reproductions of USFS holdings can be furnished in a variety of configurations: contact prints, positive transparencies, and glass diapositives. Enlargements to various scales, depending on paper size, can be furnished Most USFS photography coverage is shown on aerial photography status maps by states. USFS photography older than that shown on the status maps is available for some areas	Panchromatic and black-and-white IR	Contact prints	5 x 5 7 x 7 9 x 9 14 x 1 18 x 1 27 x 2 36 x 3
				Positive transparencies	70 5 x 5 9 x 9
				Glass diapositives	0.060, 0.1 and 0.250
				Photo indexes	10 x 1 20 x 2
			Color and Color IR	Contact prints	5 x 5 9 x 9 14 x 1 18 x 1 27 x 2 36 x 3
				Positive transparencies	70 5 x 5 9 x 9

(Continued)

Products Available					Procedures for Obtaining Imagery
	Format	Size, in.	Cost, ea	Remarks	
	Contact prints	9-1/2 × 9-1/2 12 × 12 17 × 17 24 × 24 38 × 38	2.00 4.00 5.00 6.00 12.00	Semimatte finish, double-weight paper	1. Obtain latest ASCS publications "Aerial Photography Status Maps," and "Aerial Photography Coverage" from ASCS, Salt Lake City. The "Aerial Photography Status Maps" shows the latest photographic coverage available for each state and county of the U. S. Pertinent data shown includes: year and scale of coverage, lens focal length, and number of photo indexes available for each county. The "Aerial Photography Coverage" is a listing by states and counties of the various coverages (dating back to 1942) obtained by ASCS and its predecessors. The year of photography and number of photo indexes for each county are shown. Also request ASCS Form 441 (Order For Aerial Photographs)
	Positive transparencies	9-1/2 × 9-1/2 12 × 12 17 × 17 24 × 24 38 × 38	3.00 4.50 5.50 7.50 16.00	Polyester base	
	Contact prints	20 × 24	5.00	Single-weight paper	2. Select photo indexes from the ASCS publications described above that will provide the desired coverage of the area of interest. Order selected indexes. If the requester is not sure of the number of indexes required, send a map with the area of interest outlined and ASCS will select the indexes required
	Positive transparencies	20 × 24	6.00	Polyester base	
	Microfilm duplicards	--	1.00 for first card; 0.10 for each additional card	--	3. Examine photo indexes and select the individual photographs that will provide the desired coverage of the area of interest. If stereo coverage is not required, select every other photograph along each flight line. Fill out ASCS Form 441 and send to ASCS, Salt Lake City, for servicing. Pertinent data that must be included on order form include paper size desired; quanity of each print; code or symbol, roll and exposure numbers (usually found in upper right-hand corner of each photograph on index); and the state and county in which the coverage is located
					4. The color IR corn-blight photography is not indexed with regular panchromatic coverage. Requester should request specific information from ASCS concerning indexes, costs, and procedures for obtaining this imagery
	Contact prints	10 × 10 14 × 14 18 × 18 26 × 26 40 × 40	2.00 4.00 5.00 6.00 12.00	All reproductions are printed on double-weight, semimatte paper unless otherwise specified Approximate scale at which enlargements are desired should be furnished with each order	1. Request the following publications from SCS: "Status of Aerial Photography," "Aerial Photography Mosaic Status Maps," and latest cost list. These publications show SCS photographic coverages available for each state, the District of Columbia, and Puerto Rico. Other information shown includes year of photography (only latest photography shown), scale of photography, camera focal length, and number of photo index sheets for complete coverage
	Controlled mosaics	20 × 24 26 × 26 40 × 40	5.00 6.00 12.00		2. Order pertinent photo index sheets for area of interest (if available). Select individual photographic exposures from the photo indexes
	Photo indexes	20 × 24 40 × 48 20 × 24	5.00 15.00 5.00		3. SCS does not supply printed order forms. An official purchase order along with a list of the exposures desired will suffice when ordering from SCS
nd black-	Contact prints	5 × 5 7 × 7 9 × 9 14 × 14 18 × 18 27 × 27 36 × 36	2.00 2.00 2.00 4.00 5.00 6.00 12.00	Choice of double-weight semimatte, single-weight glossy, or plastic-coated (waterproof) paper. Stable base (polyester) also available for $1.00 per print extra	1. Request Technical Report ETR-7100-4a, "Aerial Photography Status Maps," and supplemental photo status maps of the U. S. from the USFS Washington office. Also request photography order form and price list. These publications will generally provide the requester with the location, type, scale, date, and coverage project number of all but the very latest photography obtained by the USFS. Information concerning the most recently acquired photography can be obtained from the USFS region in which the area of interest is located. There is normally a "lag time" between the acquisition of photography and its inclusion in the published photography status maps
	Positive transparencies	70 mm 5 × 5 9 × 9	2.00 3.00 3.00		2. Examine the aerial photography status maps to determine if appropriate coverage is available for the area of interest. Photo indexes should be ordered if individual prints are to be selected
	Glass diapositives	0.060, 0.130, and 0.250 thick	10.00		3. Photo indexes and photography should be ordered from the USFS regional office serving the area involved. The only exception to this procedure is that photography in Regions 8 and 9 should be ordered from the USFS Washington office. Regions 8 and 9 do not have photographic reproduction facilities. However, these regions can provide the requester with information concerning the types and coverages of photography in their respective regions
	Photo indexes	10 × 12 20 × 24	3.00 5.00	Double-weight, semimatte paper	
or IR	Contact prints	5 × 5 9 × 9 14 × 14 18 × 18 27 × 27 36 × 36	7.00 7.00 12.00 15.00 20.00 30.00		
	Positive transparencies	70 mm 5 × 5 9 × 9	5.00 6.00 12.00		

Agency	Imagery			
	Type	Range of Scales	Coverage	
			Areas	Period
Bonneville Power Administration (BPA) Photogrammetry Unit P. O. Box 2631 Portland, Oreg. 97208	Panchromatic Color	1:6000 to 1:48,000 Predominant scale is 1:12,000	Portions of Oregon, Idaho, Washington, and Montana. Most of the color coverage is of wooded areas west of the Cascade Mountains. Panchromatic coverage is primarily of open areas	Coverage per mid-1950's t
Bureau of Land Management (BLM) Denver Service Center Denver Federal Center, Building 50 Denver, Colo. 80225	Panchromatic Color Color IR	1:12,000 to 1:125,000 Predominant scale is 1:31,680	Federal lands within Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, and Wyoming	Coverage per early 1960's Photography "as-needed" support of and special
U. S. Bureau of Reclamation (USBR) Engineering and Research Center Building 67, Federal Center Denver, Colo. 80225 USBR Regional Offices (See map--) Pacific Northwest Region Federal Building, U. S. Courthouse Box 043, 550 W. Fort Street Boise, Idaho 83724 Mid-Pacific Region Federal Office Building 2800 Cottage Way Sacramento, Calif. 95825 Lower Colorado Region P. O. Box 427 Boulder City, Nev. 89005 Upper Colorado Region P. O. Box 11568 125 S. State Street Salt Lake City, Utah 84111 Southwest Region Herring Plaza Box H-4377 317 E. 3rd Street Amarillo, Tex. 79101 Upper Missouri Region P. O. Box 2553, Federal Office Building, 316 N. 26th Street Billings, Mont. 59103 Lower Missouri Region Building 20, Denver Federal Center Denver, Colo. 80225	Panchromatic Color Color IR	1:600 to I:24,000	USBR photography coverage is restricted to 17 western states: Washington, Oregon, California, Idaho, Nevada, Arizona, Montana, Utah, Colorado, New Mexico, Wyoming, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas Coverages within these states are at numerous and widely separated sites, generally along irrigation canals, streams, roads, and at reservoir, dam, and other construction sites	Photography on an "as-ne junction wit of the USBR Coverage per 1940's to th
U. S. Geological Survey (USGS)** Mid-Continent Mapping Center Map and Field Data Section Box 133 (or 900 Pine Street) Rolla, Mo. 65401	Panchromatic	1:11,000 to 1:80,000	Coverage area consists of the following 14 states: Arkansas, Illinois, Iowa, Kansas, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Oklahoma, Nebraska, North Dakota, South Dakota, and Wisconsin	Coverage peri to the prese Frequency of largely on th ments of the substantial and cultural prevalent ge periodically
U. S. Geological Survey (USGS)** Rocky Mountain Mapping Center Map and Field Data Section Federal Center, Building 25 Denver, Colo. 80225	Panchromatic	1:11,000 to 1:80,000	Coverage area consists of the following 7 states: Alaska, Montana, Wyoming, Utah, Colorado, New Mexico, and Texas	Se

** This office also provides information and order imagery held by the EROS Data Center, Sioux Falls, S. Dak. Types and costs of imagery are the same as described for the EROS Data Cent

2

Table A1 (Continued)

Imagery Coverage			Products Available		
Areas	Period and/or Frequency	Availability and Characteristics	Type	Format	Size, in.
Oregon, Idaho, Washington, and rt of the color coverage is of wooded f the Cascade Mountains. Panchro- ge is primarily of open areas	Coverage period ranges from the mid-1950's to the present	Reproductions of BPA photography are available to all Government agencies on request BPA has facilities for reproduction of panchromatic photography only. Reproduction format is generally restricted to 9- by 9-in. contact prints and glass plates; however, enlargements are available on request Color reproductions of BPA photography can be done by the requesting agency or by commercial firms All photography obtained by BPA is indexed on 1:250,000-scale topographic maps. Mylar overlays are used to plot individual photo sites	Panchromatic and color	Contact prints Glass plates Enlargements to various scales and paper sizes are available	9 × 9 9 × 9 --
s within Arizona, California, aho, Montana, Nevada, New Mexico, , and Wyoming	Coverage period ranges from the early 1960's to the present Photography is obtained on an "as-needed" basis, primarily in support of mapping requirements and special studies	BLM photography is available to all Federal agencies on request BLM has no "in-house" reproduction facilities. All photography reproduction is done by either the U. S. Geological Survey or commercial firms BLM photography can be obtained in various formats and at various scales. Most common format is 9- by 9-in. contact prints or positive transparencies BLM photography is indexed on 1:1,000,000 index maps of each state. The project symbol and number, year flown, camera focal length, direction flown, scale, and type of photography are normally shown on the indexes	--	--	--
aphy coverage is restricted to 17 es: Washington, Oregon, California, a, Arizona, Montana, Utah, Colorado, Wyoming, North Dakota, South Dakota, nsas, Oklahoma, and Texas ithin these states are at numerous eparated sites, generally along anals, streams, roads, and at am, and other construction sites	Photography is normally acquired on an "as-needed" basis in conjunction with special projects of the USBR Coverage period ranges from the 1940's to the present	USBR photography is generally available to other Government agencies on request. The USBR coverage is composed predominantly of panchromatic photography. The trend is, however, increasingly toward acquisition of color and color IR photography USBR policy is to transfer project photography to the U. S. Geological Survey EROS Data Center as soon as the project is completed. This policy normally results in each regional office retaining only that photography flown during the past 2-4 yr Each regional office of the USBR is responsible for the acquisition, reproduction, and storage of imagery required in support of regional studies and projects. However, all regional offices do not have photographic reproduction facilities The regional offices generally maintain indexes of various types of imagery acquired	--	--	--
a consists of the following 14 ansas, Illinois, Iowa, Kansas, ichigan, Minnesota, Mississippi, klahoma, Nebraska, North Dakota, a, and Wisconsin	Coverage period ranges from 1943 to the present Frequency of coverage depends largely on the mapping requirements of the USGS. Areas where substantial changes in physical and cultural features are most prevalent generally are flown periodically	USGS photography is available on request Photography generally consists of vertical aerial photography obtained primarily for topographic and geologic mapping. Some of the photography is low oblique photographs taken with cameras tilted 20 deg from the vertical Prints are available with stereoscopic overlap or without such overlap. Enlargements to an exact ratio or to a specific scale are available Photo indexes are available for nearly all USGS photography within the coverage area	Panchromatic	Contact prints Film positives Film negatives	9 × 9 18 × 18 27 × 27 36 × 36 9 × 9 9 × 9
			Photo indexes	Contact prints	10 × 12 20 × 24
			Kelsh plates	Contact glass	0.130 thickness
			ER-55 plates	Reductions on glass	11 × 11-cm, 0.090 thick
			Transformed prints	Contact prints	--
a consists of the following 7 aska, Montana, Wyoming, Utah, w Mexico, and Texas	Same as above	Same as above	Same as above	Same as above	Same as above

(Continued)

ery are the same as described for the EROS Data Center.

Products Available				Procedures for Obtaining Imagery
Format	Size, in.	Cost, ea	Remarks	
Contact prints	9 × 9	NA	BPA does not maintain published cost lists for reproduction of BPA imagery. BPA will reproduce panchromatic photography for the requester on a cost of materials and processing basis. Some overhead costs may also be charged by BPA. Color reproductions must be accomplished by the requesting agency or by commercial firms	The requester should provide the BPA with the location of the area of interest for which imagery coverage is desired. A map on which the area of interest has been outlined is preferable. The type, scale, and date of imagery required should also be specified at the time of request
Glass plates	9 × 9	NA		
Enlargements to various scales and paper sizes are available	--	NA		
--	--	--	No standard price lists for reproduction of BLM imagery are available	1. Request photographic index map for the state in which the area of interest is located, or furnish BLM with map on which area of interest has been outlined 2. Federal agencies should make out purchase orders for desired photography as follows: Black-and-white products U. S. Geological Survey Building 25 Denver Federal Center Lakewood, Colo. 80225 Color and color IR products IntraSearch, Inc. 1600 Ogden Street Denver, Colo. 80218 3. All purchase orders should be sent to the BLM Denver office for processing
--	--	--	No standard price lists for the reproduction of USBR imagery are available	1. Contact the regional office in which the area of interest is located. Furnish the office with the location of the area for which photographic coverage is desired. The regional office can then determine specific coverages available, if any, for the area of interest 2. If the regional office has photographic reproduction facilities, it will provide the requester with an estimate of the cost for reproduction of the desired coverage. If no "in-house" reproduction facilities are available, arrangements may be made for commercial reproduction of the photography
Contact prints	9 × 9 18 × 18 27 × 27 36 × 36	2.00 5.00 6.00 12.00		1. Request the state index map(s) of available USGS photography that is applicable to the area of interest. These indexes will provide information concerning the area of coverage available, project symbol, and the date and scale of the photography. Only the latest photographic coverage is shown (as of status date shown on margin of index) 2. Locate the area of interest on the index map. This procedure will indicate the availability, date, scale, and project symbol of photography for the specific area 3. If the size of the area of interest is large, the requester should ask for photo indexes or flight line diagrams of the area. Individual prints can then be selected from these indexes. When requesting photo indexes, include the coordinates of the area of interest or an outline of the area on a suitable map. Include project symbol shown on the state map indexes, when possible 4. In some instances, photography postdating the status date of the state index may be available. The USGS Mapping Center staff can furnish information concerning any new photography not included on the state index map
Film positives	9 × 9	3.00		
Film negatives	9 × 9	6.00		
Contact prints	10 × 12 20 × 24	3.00 5.00		
Contact glass	0.130 thickness	10.00		
Reductions on glass	11 × 11-cm, 0.090 thick	10.00		
Contact prints	--	7.00		
Same as above	Same as above	Same as above		Same as above

Agency	Imagery			
	Type	Range of Scales	Coverage	
			Areas	Period s
U. S. Geological Survey (USGS)** Western Mapping Center Map and Field Data Section 345 Middlefield Road Menlo Park, Calif. 94025	Panchromatic	1:6,000 to 1:40,000	Coverage area consists of the following 7 states: Arizona, California, Hawaii, Idaho, Nevada, Oregon, and Washington	Coverage peri early 1950's Frequency of largely on th ments of the substantial c and cultural prevalent gen periodically
U. S. Geological Survey (USGS)** Eastern Mapping Center Map and Field Data Section 536 National Center Reston, Va. 22092	Panchromatic	1:12,000 to 1:56,000 Predominant scale is 1:24,000	Coverage area consists of the following 22 states: Alabama, Georgia, Florida, North Carolina, South Carolina, Tennessee, Kentucky, Indiana, Ohio, West Virginia, Virginia, Maryland, Delaware, Pennsylvania, New York, New Jersey, Rhode Island, Connecticut, Massachusetts, New Hampshire, Vermont, and Maine. Coverage is also provided for the District of Columbia, Puerto Rico, and the Virgin Islands	Coverage peri to the present Frequency of largely on the ments of the substantial c and cultural prevalent gen periodically
U. S. Geological Survey (USGS) Earth Resources Observation Systems (EROS) Data Center 10th and Dakota Avenue Sioux Falls, S. Dak. 57198 EROS Applications Assistance Facility† National Space Technology Laboratories Bay St. Louis, Miss. 39520 EROS Applications Assistance Facility† 345 Middlefield Road Menlo Park, Calif. 94025	USGS mapping photography and NASA high- and low-altitude photography. Specific types are: panchromatic, color, and color IR	USGS photography 1:12,000 to 1:90,000 Predominant scale is 1:24,000 NASA photography 1:30,000 to 1:120,000	USGS photography: discontinuous areas throughout the conterminous U. S., Alaska, Hawaii, and territories NASA photography: test sites within the conterminous U. S. These test sites vary widely in areal extent and location. A small amount of coverage is available for a number of foreign countries, primarily countries in Central and South America	Coverage peri ranges from 19 The photograph tained during early spring. quirements hav multiple cover and varying da Coverage perio raphy ranges f present. Phot flown annually sites throughc

** This office also provides information and order imagery held by the EROS Data Center, Sioux Falls, S. Dak. Types and costs of imagery are the same as described for the EROS Data Center

† These facilities act as regional support centers to the EROS Data Center in Sioux Falls, S. Dak. Both have computer terminals connecting them to the EROS Data Center. These centers pr

2 1

Table A1 (Continued)

Imagery Coverage			Products Available		
Areas	Period and/or Frequency	Availability and Characteristics	Type	Format	Size, in.
area consists of the following 7 states: California, Hawaii, Idaho, Nevada, nd Washington	Coverage period ranges from the early 1950's to the present Frequency of coverage depends largely on the mapping requirements of the USGS. Areas where substantial changes in physical and cultural features are most prevalent generally are flown periodically	USGS photography is available on request Photography generally consists of vertical aerial photography obtained primarily for topographic and geologic mapping. Some of the photography is low oblique photographs taken with cameras tilted 20 deg from the vertical Prints are available with stereoscopic overlap or without such overlap. Enlargements to an exact ratio or to a specific scale are available Photo indexes are available for nearly all USGS photography within the coverage area	Panchromatic	Contact prints	9 × 9 18 × 18 27 × 27 36 × 36
				Film positives	9 × 9
				Film negatives	9 × 9
			Photo indexes	Contact prints	10 × 12 20 × 24
			Kelsh plates	Contact glass	0.130 thickness
			ER-55 plates	Reductions on glass	11 × 11-cm, 0.090 thick
			Transformed prints	Contact prints	--
area consists of the following 22 Alabama, Georgia, Florida, North South Carolina, Tennessee, Kentucky, Ohio, West Virginia, Virginia, Delaware, Pennsylvania, New York, y, Rhode Island, Connecticut, setts, New Hampshire, Vermont, and Maine. is also provided for the District of Puerto Rico, and the Virgin Islands	Coverage period ranges from 1939 to the present Frequency of coverage depends largely on the mapping requirements of the USGS. Areas where substantial changes in physical and cultural features are most prevalent generally are flown periodically	Same as above	Same as above	Same as above	Same as above
ography: discontinuous areas throughconterminous U. S., Alaska, Hawaii, and es tography: test sites within the conter- S. These test sites vary widely in ent and location. A small amount of is available for a number of foreign s, primarily countries in Central and erica	Coverage period for photography ranges from 1942 to the present. The photography was usually obtained during the late fall or early spring. Map updating requirements have resulted in multiple coverages of many areas and varying dates Coverage period for NASA photography ranges from 1965 to the present. Photography is being flown annually at selected test sites throughout the U. S.	All imagery held by the EROS Data Center is available for sale on request Panchromatic coverage is composed primarily of aerial mapping photography taken by USGS. Most of the photography is comprised of vertical photographs in 9- by 9-in. format. The remainder are either low oblique, taken with cameras tilted 20 deg from the vertical, or high-altitude photographs. In addition, panchromatic photography flown in support of various projects of the Bureau of Reclamation and land management is provided to the USGS for indexing and distribution. A computerized index to the USGS-held photographs is maintained at the Data Center. All photographs are available at contact scales, enlargements, or reductions, on film or on paper, in rolls or cut. Photographs obtained prior to 1941 are held by the National Archives, Washington, D. C. Color and color IR imagery held at the EROS Data Center was acquired as a result of the NASA Earth Resources Aircraft Program. Low-altitude and high-altitude coverage is available. Black-and-white NASA aircraft imagery is also available. Copies of the NASA black-and-white, color, and color IR imageries can be purchased at contact scales, enlargements, or reductions, in color or black-and-white, on film or on paper, in rolls, or cut. Provided with each image order are annotations on a computer printout that provide: date, local time, geographic coordinates, print scale, altitude, film type, sensor type, originating agency, project, roll, and frame. A catalog of all NASA imagery is maintained at the Data Center Because of the large number of panchromatic photographs available, they have been combined into photo indexes. The majority of the photo indexes are 7-1/2 min quadrangles that cover approximately 8 by 10 miles. Over 50,000 photo indexes are available at the Data Center. Copies of the NASA aircraft imagery and the USGS photography produced on 16-mm film are available for purchase. These films are designed to provide prepurchase evaluation of such parameters as: areal coverage, cloud cover, and sensor angle. Updating of these browse films is irregular	Aerial mapping photography Panchromatic	Film positives	9 × 9
				Film negatives	9 × 9
				Paper	9 × 9 18 × 18 27 × 27 36 × 36
			NASA aircraft photography Panchromatic	Film positives	2.2 × 2.2 4.5 × 4.5 9 × 9 9 × 18
				Film negatives	2.2 × 2.2 4.5 × 4.5 9 × 9 9 × 18
				Paper	4.5 × 4.5 9 × 9 9 × 18 18 × 18 27 × 27 36 × 36
			NASA aircraft photography Color, color IR	Film positives	2.2 × 2.2 4.5 × 4.5 9 × 9 9 × 18
				Paper	4.5 × 4.5 9 × 9 9 × 18 18 × 18 27 × 27 36 × 36
			Browse film (black-and-white)	Microfilm	16mm--100 ft 35mm--100 ft
			Browse film (color)	Microfilm	16mm--100 ft 35mm--100 ft
			Kelsh plates (black-and-white)	Glass contact prints	9 × 9
			Transformed prints--from convergent or transverse low oblique photographs (black-and-white)	--	--
			Photo indexes (black-and-white)	Size A	10 × 12
				Size B	20 × 24

(Continued)

magery are the same as described for the EROS Data Center.
onnecting them to the EROS Data Center. These centers provide assistance in obtaining imagery products held at the EROS Data Center, and furnish guidance for using remotely sensed data.

Products Available					Procedures for Obtaining Imagery
Type	Format	Size, in.	Cost, ea	Remarks	
ic	Contact prints	9 x 9 18 x 18 27 x 27 36 x 36	2.00 5.00 6.00 12.00		1. Request the state index map(s) of available USGS photography that is applicable to the area of interest. These indexes will provide information concerning the area of coverage available, project symbol, and the date and scale of the photography. Only the latest photographic coverage is shown (as of status date shown on margin of index) 2. Locate the area of interest on the index map. This procedure will indicate the availability, date, scale, and project symbol of photography for the specific area 3. If the size of the area of interest is large, the requester should ask for photo indexes or flight line diagrams of the area. Individual prints can then be selected from these indexes. When requesting photo indexes, include the coordinates of the area of interest or an outline of the area on a suitable map. Include project symbol shown on the state map indexes, when possible 4. In some instances, photography postdating the status date of the state index may be available. The USGS Mapping Center staff can furnish information concerning any new photography not included on the state index map
	Film positives	9 x 9	3.00		
	Film negatives	9 x 9	6.00		
xes	Contact prints	10 x 12 20 x 24	3.00 5.00		
es	Contact glass	0.130 thickness	10.00		
es	Reductions on glass	11 x 11-cm, 0.090 thick	10.00		
d prints	Contact prints	--	7.00		
e as above	Same as above	Same as above	Same as above		Same as above
pping photography ic	Film positives	9 x 9	3.00	Roll-to-roll reproductions delivered in roll carries a 50 percent reduction in price	1. Obtain Geographic Computer Search inquiry form from the EROS Data Center or from the regional EROS facilities. Fill out form and send to EROS Data Center for processing. Based on the information contained on the form, the Data Center computer will search for the appropriate materials, indicating what is available for the requester's area of interest meeting the requester's specifications. The computer will provide a printout of references from which a final selection can be made. From information in the computer printout, it is possible to locate the browse film of the imagery to check it for cloud coverage and geographic coverage before placing an order 2. After the computer search over the area of interest is completed, the Data Center will send the requester the computer printout along with a decoding sheet and order forms, from which imagery can be selected and ordered 3. Imagery can also be obtained by telephoning or visiting the Data Center or either of the regional EROS facilities. However, the requester must be prepared to provide sufficient information concerning the geographic area of interest, what the data will be used for, and the manner in which the data will be used
	Film negatives	9 x 9	6.00		
	Paper	9 x 9 18 x 18 27 x 27 36 x 36	2.00 5.00 6.00 12.00		
raft photography ic	Film positives	2.2 x 2.2 4.5 x 4.5 9 x 9 9 x 18	2.00 2.00 3.00 6.00		
	Film negatives	2.2 x 2.2 4.5 x 4.5 9 x 9 9 x 18	4.00 4.00 6.00 12.00		
	Paper	4.5 x 4.5 9 x 9 9 x 18 18 x 18 27 x 27 36 x 36	2.00 2.00 4.00 5.00 6.00 12.00		
raft photography or IR	Film positives	2.2 x 2.2 4.5 x 4.5 9 x 9 9 x 18	5.00 6.00 12.00 24.00		
	Paper	4.5 x 4.5 9 x 9 9 x 18 18 x 18 27 x 27 36 x 36	6.00 7.00 14.00 15.00 20.00 30.00		
m (black-and-	Microfilm	16mm--100 ft 35mm--100 ft	15.00 20.00		
m (color)	Microfilm	16mm--100 ft 35mm--100 ft	35.00 40.00		
es (black-and-	Glass contact prints	9 x 9	10.00		
d prints--from or transverse e photographs -white)	--	--	7.00		
xes (black-	Size A	10 x 12	3.00		
	Size B	20 x 24	5.00		

guidance for using remotely sensed data.

Agency	Imagery			
	Type	Range of Scales	Coverage	
			Areas	Perio
Defense Intelligence Agency (DIA) Attn: DC-6C2 Washington, D. C. 20301	Panchromatic Color Color IR Black-and-white IR Thermal IR Side-looking radar Multiband	1:1,000 to 1:100,000	Partial to full coverage of most foreign countries Small amount of domestic coverage--most of which is usually turned over to the Geological Survey	Coverage p 1939 to th
Susquehanna River Basin Commission (SRBC) 5012 Lenker Street Mechanicsburg, Pa. 17055	Panchromatic	1:12,000 to 1:19,500 Predominant scale is 1:12,000	Along the main channel of the Susquehanna River and its major tributaries in New York, Pennsylvania, and Maryland	Coverage per 1973 to earl coverage was spring, with the fall
National Ocean Survey (NOS) Coastal Mapping Division, C-3415 Rockville, Md. 20852	Panchromatic Black-and-white IR Color Color IR	1:5,000 to 1:60,000	Coastal areas and most civil airports of the U. S., including Alaska, Hawaii, Puerto Rico, and Virgin Islands.	Imagery held 1943 to the varys from o No fixed sche areas exists based on the updating of nautical cha shoreline ch etc.
National Ocean Survey Lake Survey Center 630 Federal Building Detroit, Mich. 48226	Panchromatic Color	1:10,000 to 1:30,000 Predominant scale is 1:30,000	Shoreline areas of the Great Lakes and along connecting waterways	Coverage per to the prese color photog acquired New photogra quired on an support of L charting and
National Archives and Records Service Cartographic Archives Division Washington, D. C. 20408	Panchromatic	1:15,840 to 1:56,600	Approximately 85 percent of the contiguous land in the U. S.	The period o from 1934 to of the photo flown during 1942

Table A1 (Continued)

Imagery Coverage			Products Available		
Areas	Period and/or Frequency	Availability and Characteristics	Type	Format	Size, in.
full coverage of most foreign nt of domestic coverage--most of which turned over to the Geological Survey	Coverage period ranges from about 1939 to the present	Reproductions of imagery held by DIA is available to all U. S. military organizations and U. S. Government agencies on request. Some coverages and imagery types are classified Pertinent data concerning imagery types, sources, scales, coverages, etc., of DIA holdings are contained within a computer data base	Photographic products and research services are normally provided to agencies without charge		
main channel of the Susquehanna River ajor tributaries in New York, nia, and Maryland	Coverage period ranges from early 1973 to early 1975. Most of the coverage was flown during the spring, with minor amounts during the fall	Reproductions of SRBC photography are available to requesting Federal agencies SRBC has no facilities for the "in-house" reproduction of their photography coverage. However, arrangements can be made to have the photography reproduced by the commercial contracting firm holding the negatives of the coverage Photographic indexes, on sheets 36 by 42 in., are available for inspection	Panchromatic	Contact prints	9 x 9
reas and most civil airports of the cluding Alaska, Hawaii, Puerto Rico, n Islands.	Imagery held by NOS ranges from 1943 to the present time, but varys from one area to another No fixed schedule for reflying of areas exists. Areas are flown based on the requirements for the updating of aeronautical and nautical charts, e.g. after major shoreline changes due to storms, etc.	NOS imagery is single lens, special purpose imagery. Usually consists of single strip or a few parallel strips of photographs. Reproductions of all imagery available on request.	Panchromatic and black-and-white IR	Contact prints	9 x 9 18 x 18 27 x 27 36 x 36
				Film positives	9 x 9
				Copy negatives	9 x 9
				Contact diapositives	9 x 9
			Color and color IR	Contact prints	9 x 9 18 x 18 27 x 27 36 x 36
				Transparencies	9 x 9 18 x 18 27 x 27 36 x 36
			Opalid prints of photo indexes for each type of imagery coverage	1:250,000 scale or larger	--
areas of the Great Lakes and along g waterways	Coverage period ranges from 1966 to the present. Since 1971, color photography only has been acquired New photography is normally acquired on an "as-needed" basis in support of Lake Survey Center charting and mapping requirements	Reproductions of Lake Survey Center photography is generally available to all Government agencies on request. However, special arrangements must be made to obtain panchromatic coverage since the Lake Survey Center no longer has the facilities for the reproduction of panchromatic photography Color reproductions in either contact print or positive transparency format are available. Enlargements can be furnished at various scales	Color	Contact prints and/or positive transparencies	9 x 9 18 x 18 27 x 27 36 x 36
tely 85 percent of the contiguous he U. S.	The period of coverage ranges from 1934 to 1947. The majority of the photography, however, was flown during the period 1935 to 1942	Reproductions of all photography held by the National Archives is available on request. Reproduction is in form of contact prints in a standard size of 10 by 10 in. Enlargements can be furnished at various scales, depending on paper size requested	Panchromatic	Contact prints	10 x 10 14 x 14 18 x 18 27 x 27 40 x 41
			Photo indexes	Contact mosaics	--

(Continued)

	Products Available				Procedures for Obtaining Imagery
	Format	Size, in.	Cost, ea	Remarks	
ucts and research services are normally provided to Department of Defense organizations and Federal charge					1. Obtain DIA Forms 242 (NACF Imagery Research Request) and 1505 (Request for Photographic Services). Also request the Country Photo Index (CPI) for the country of interest 2. Inspect the CPI to obtain a general knowledge of the coverage available. Select the specific area of interest and determine four sets of coordinates (longitude and latitude) representing the four corners of the area. If one or more sides of the area are irregular, outline the area on a map 3. Fill out Form 242 and submit to DIA. Include map if outline of area was required. List coordinates of area of interest. Search parameters to be included on Form 242; should specify scale, date, type, size, and quality of photography desired; type of mission; security classification of photography; camera angle (ground, oblique, vertical); and minimum acceptable percentage of snow and cloud cover. Some of this information is contained in the CPI 4. Upon receipt of Form 242, DIA programs the data into the computer. The results are shown on a computer-generated printout sheet. Along with the printout, a graphic plot index overlay can be furnished at one of four scales: 1:200,000, 1:250,000, 1:500,000, or 1:1,000,000 (the requester should specify plot index scale desired when Form 242 is submitted) 5. Select the imagery type (or combination of imagery types), exposures, scales, etc., required from the printout and plot index. Fill out Form 1505 with necessary information and submit to DIA for servicing
	Contact prints	9 x 9	NA	Reproduction of SRBC photography will be authorized by the SRBC on a cost basis by the contractor holding the coverage negatives	1. Requests for reproductions of the SRBC photography should be directed to Mr. Robert Bielow, Executive Director, SRBC 2. The requester should describe the specific area of interest in detail sufficient that the SRBC can determine the availability of photography for the specified area. A sketch map or an outline of the area of interest on a published map is desirable
black-	Contact prints	9 x 9 18 x 18 27 x 27 36 x 36	2.00 5.00 6.00 12.00	Printed on double-weight glossy paper unless double-weight matte is specified	1. No photo mosaic-type indexes of available imagery is maintained. Photographs are normally indexed on 1:250,000-scale base maps that cover an area of 1 deg of latitude by 1 deg of longitude with each exposure indicated by a dot. Occasionally larger scale bases are used for indexes. Separate indexes are maintained for each type of imagery. Ozalid prints of indexes are available on request 2. Potential users should describe the specific area of interest by geographic coordinates, a detailed description, or a sketch. Photo indexes of the area of interest should be requested. Photographic coverage desired should be selected from indexes 3. For positive identification, each photograph ordered should specify the year, camera designation, and serial number. This information can be obtained from the photo index. 4. Authorization to purchase photographs of classified areas must be obtained by the user from appropriate military authorities
	Film positives	9 x 9	3.00	Individually contact printed from aerial negative	
	Copy negatives	9 x 9	6.00	Individually printed on film	
	Contact diapositives	9 x 9	10.00	On glass, for 1st and 2nd order plotting instruments	
IR	Contact prints	9 x 9 18 x 18 27 x 27 36 x 36	7.00 15.00 20.00 30.00	Glossy finish	
	Transparencies	9 x 9 18 x 18 27 x 27 36 x 36	7.00 15.00 20.00 30.00		
photo type of	1:250,000 scale or larger	--	0.50	Costs shown are as of July 1974	
	Contact prints and/or positive transparencies	9 x 9 18 x 18 27 x 27 36 x 36	7.00 15.00 20.00 30.00		1. Lake Survey Center photography is indexed on Lake Survey navigational charts of various scales. Copies of these indexes are generally not available for distribution 2. Potential users of Lake Survey Center photography should describe the specific area of interest by geographic coordinates, a detailed description, or a sketch
	Contact prints	10 x 10 14 x 14 18 x 18 27 x 28 40 x 41	2.00 4.00 5.00 6.00 12.00	Federal agencies receive a 10 percent discount on their orders	1. Request Special List Number 25, Aerial Photographs in the National Archives. The list has two parts. Part I is an alphabetical arrangement by state, then by county, of the aerial photographic coverage available. Date and source of photography is also shown. Number of photo indexes for each county is indicated. Part II consists of numbered entries showing the name or symbol of each survey covering more than one county, the counties covered, number of indexes, and scale of photography 2. Select and order photo indexes as indicated in the Special List. Individual prints can then be ordered from the photo indexes. If user does not wish to order index sheets, the user can furnish the Archives with a map, sketch, or description of the precise area of interest. Archives personnel will then select the photographic coverage for the requested area and furnish a quote for cost or reproduction
	Contact mosaics	--	5.00	Costs shown are as of April 1975	

Agency	Imagery			
	Type	Range of Scales	Coverage	
			Areas	Period
Tennessee Valley Authority (TVA) Maps and Surveys Branch Chattanooga, Tenn. 37401	Panchromatic Black-and-white IR Color Color IR Thermal IR	1:400 to 1:30,000	Complete coverage of the Tennessee Valley drainage basin (includes portions of Tennessee, Georgia, Kentucky, Alabama, North Carolina, Virginia, and Mississippi) by panchromatic photography Selected areas and/or sites within the Tennessee River watershed by color, color IR, black-and-white IR, and thermal IR High-altitude coverage over about 60 percent of Tennessee River drainage basin by color and color IR	Panchromatic period ranges ent Color, color white IR photo period ranges present No fixed sched of imagery exi flown on an " support of spa programs

2 1

Table A1 (Continued)

Imagery			Products Available			
Coverage						
Areas	Period and/or Frequency	Availability and Characteristics	Type	Format	Size, in.	Cost
s of the Tennessee Valley drainages portions of Tennessee, y, Alabama, North Carolina, ssissippi) by panchromatic pho-	Panchromatic photography coverage period ranges from 1925 to present	Reproductions of all panchromatic photography at a scale of 1 in. = 2000 ft are available on request. Reproduction of this coverage is normally in 9- by 9-in. contact print format. Enlargements can be furnished at various scales, depending on paper size requested	Panchromatic	Contact prints	7 x 7 or 9 x 9 21 x 21 or smaller 27 x 28 or smaller 32 x 40 or smaller 40 x 40 or smaller	2. 5. 6. 11. 13.
nd/or sites within the Tennessee by color, color IR, black-and- ermal IR	The high-altitude color and color IR photography is in 9- by 9-in. transparency format. Reproductions in form of black-and-white negatives and/or contact prints can be obtained			Photo mosaics	--	1.50/ft paper
verage over about 60 percent of drainage basin by color and	No fixed schedule for acquisition of imagery exists. Areas are flown on an "as-needed" basis in support of special projects or programs	The color, color IR, black-and-white IR, and thermal IR required by Maps and Surveys Branch equipment is on 70-mm and 9- by 9-in. film format. Reproductions of the color IR and black-and-white IR can be furnished. Reproductions of color and thermal IR are generally not furnished, but are available for inspection at the Maps and Survey Branch	Color, color IR, black-and-white IR	*No firm cost information available; formats and c variable; requester should contact TVA for specif*		
		A few panchromatic photo mosaics of selected areas are available at scales of 1 in. = 2000 ft and 1 in. = 4000 ft. They vary in quality and format	Photo indexes	Photocopy Blue line	7-1/2 minute 7-1/2 minute	3. 1.

Products Available				Procedures for Obtaining Imagery
Format	Size, in.	Cost, ea	Remarks	
Contact prints	7 x 7 or 9 x 9	2.00	Glossy or semimatte finish	1. All photography held by TVA is keyed to 7-1/2-minute quadrangle map coverage of the Tennessee Valley area. Photographic indexes, in 7-1/2-minute form, are available for the basic photography in photocopy and/or ozalid blue line prints. In many areas, the basic coverage is supplemented with the special purpose photography of various scales and dates
	21 x 21 or smaller	5.00		
	27 x 28 or smaller	6.88		
	32 x 40 or smaller	11.25		
	40 x 40 or smaller	13.75		
Photo mosaics	--	1.50/ft^2 of paper used	Glossy or semimatte finish	2. Requests for photography should define area of interest, scale desired, size (if enlargements desired), stereo or conventional coverage, type of finish (glossy or semimatte), and intended use. TVA will then advise what photography is available, giving scale, dates, and other pertinent data
No firm cost information available; formats and costs for these imagery types are highly variable; requester should contact TVA for specific needs and price quotations				3. If area of interest can be located on 7-1/2-minute TVA and/or USGS quad coverage of the Tennessee Valley area, the photo indexes covering the subject area may be ordered. The requester can then select the individual exposures required
Photocopy	7-1/2 minute	3.75		
Blue line	7-1/2 minute	1.25		

Agency	Imagery			
	Type	Range of Scales	Coverage	
			Areas	Perio
Agricultural Stabilization and Conservation Service (ASCS) Aerial Photography Field Office 2511 Parley's Way Salt Lake City, Utah 84109	LANDSAT -1 and -2 Multispectral Scanner (MSS) System Band 4--green (500-600 NM) Band 5--red (600-700 NM) Band 6--near IR (700-800 NM) Band 7--near IR (800-1100 NM) Return Beam Vidicon (RBV) System†† Band 1--green (475-525 NM) Band 2--red (580-680 NM) Band 3--near IR (800-1100 NM)	1:1,000,000 to 1:3,369,000	LANDSAT -1 and -2 orbital parameters are basically identical with a near-polar, 500-mile circular orbit. The LANDSATS circle the earth 14 times per day. Each pass covers a region 115 miles wide. There is some overlap between adjoining passes	Coverage p ery is as July 1972 LANDSAT -2 life of sy Each space in orbit t on earth e LANDSAT -2 of phase f vide cover the earth's
	SKYLAB S-190A System-Multispectral Camera / Wavelength / Film: 1 — 500-600 NM (green) — Panchromatic (EK 2424) 2 — 600-700 NM (red) — Panchromatic (EK 2424) 3 — 700-800 NM (IR) — Black-and-white IR (EK 3443) 4 — 800-900 NM (IR) — Black-and-white IR (EK 3400) 5 — 500-880 NM (green, red, IR) — Color IR (EK 3400) 6 — 400-700 NM (blue, green, red) — Aerial Color (SO 242) S-190B System-Single Lens Wavelength / Film: 400-700 NM — Aerial color 500-700 NM — Panchromatic 500-880 NM — Color IR	S-190A System 1:2,850,000 S-190B System 1:950,000	Selected areas of the earth's surface. Orbital path of the space vehicle crosses the U. S. from northwest to southeast, and southwest to northeast at approximately 45 deg from the equator. Altitude of orbit is 270 miles. Most of imagery was acquired between latitudes 50 deg north and 50 deg south. The S-190A system covers an area of approximately 100 by 100 miles. The S-190B system covers approximately 68 by 68 miles	Coverage p through Ju July throu SKYLAB -4, February 19 Coverage f earth every
Soil Conservation Service (SCS)** Cartographic Division Federal Center, Building No. 1 Hyattsville, Md. 20782	LANDSAT -1 Mosaic (Conterminous U. S.) Band 5--red, 0.6 to 0.7 NM Band 7--IR, 0.8 to 1.1 NM LANDSAT -1 Mosaic (Alaska) Band 7--IR, 0.8 to 1.1 NM	Conterminous U. S. 1:500,000 to 1:5,000,000 Alaska 1:500,000 to 1:3,300,000	Conterminous U. S. and Alaska	Two coverag able for LA the U. S., s 25 July t 1 January Coverage pe mosaic is: 25 July t

** This office also provides information and order imagery held by the EROS Data Center, Sioux Falls, S. Dak. Types and costs of imagery are the same as described for the EROS Data Cent

†† Imagery from the RBV system on board LANDSAT -1 and -2 may not be available due to malfunctions in the system.

(-) Total sheets in mosaic.

Table A1 (Continued)

Satellite

Imagery			Products Available		
Coverage					
Areas	Period and/or Frequency	Availability and Characteristics	Type	Format	Size, in.
1 and -2 orbital parameters are identical with a near-polar, 500-ular orbit. The LANDSATS circle 14 times per day. Each pass region 115 miles wide. There is lap between adjoining passes	Coverage period for LANDSAT imagery is as follows: LANDSAT -1, July 1972 for life of system; LANDSAT -2, January 1975 for life of system Each spacecraft was positioned in orbit to pass over each point on earth every 18 days. LANDSAT -2 was placed 180 deg out of phase from LANDSAT -1 to provide coverage of every portion of the earth's surface every 9 days	All LANDSAT imagery held by ASCS is available on request to the Aerial Photography Office, Salt Lake City, Utah For basic characteristics of the RBV and MSS imagery, refer to the information described for the EROS Data Center False-color IR imagery is available from the ASCS for most of the imagery held. Color composite negatives made at the ASCS are usually composed of bands 4, 5, and 7 unless otherwise specified Black-and-white photographic indexes of the conterminous U. S. for each 18-day cycle using band 5 imagery are available on 20- by 24-in. paper at the scale of 1:8,000,000. Availability of these indexes may be discontinued at any time	Panchromatic and black-and-white IR	Paper prints	70 mm 9 x 9 12 x 12 17 x 17 24 x 24 38 x 38
				Transparencies	70 mm 9 x 9
			Color and color IR	Paper prints	70 mm 9 x 9 12 x 12 17 x 17 24 x 24 38 x 38
				Positive transparencies	70 mm 9 x 9
areas of the earth's surface. Orbi-of the space vehicle crosses the U. S. nwest to southeast, and southwest nat at approximately 45 deg from the Altitude of orbit is 270 miles. magery was acquired between latitudes rth and 50 deg south. The S-190A vers an area of approximately 100 by . The S-190B system covers approxi-by 68 miles	Coverage period: SKYLAB -2, May through June 1973; SKYLAB -3, July through September 1973; SKYLAB -4, November through February 1974 Coverage frequency: Orbits the earth every 93 min	All SKYLAB imagery held by the ASCS is available on request to the Aerial Photography Office, Salt Lake City, Utah The S-190A system is a multispectral camera with six precisely matched 6-in. focal length lenses and six magazines of 70-mm film. All shutters operate simultaneously to produce individual images of the same area in different spectral bands. Images on 70-mm film are 2-1/4 by 2-1/4 in. The S-190B system consists of one high-resolution camera with an 18-in. focal length lens. The system is crew-operated independently of the other systems with coverage generally duplicating a portion of the imagery from the S-190A system. Five-in. roll film covering three spectral ranges is used interchangeably Photographic indexes depicting coverage available for the conterminous U. S. for each SKYLAB mission are available on 20- by 24-in. paper at the scale of 1:8,000,000. Because orbits traverse the nation in two directions, coverage for each mission may require more than one sheet. Availability of these indexes may be discontinued at any time Paper enlargements are available in sizes up to 24 by 24 in. and transparencies up to 10 by 10 in.	Photo indexes (black-and-white only)	Paper prints	20 x 24
ous U. S. and Alaska	Two coverage periods are available for LANDSAT -1 mosaics of the U. S., as follows: 25 July to 31 October 1972 1 January to 15 March 1973 Coverage period for the Alaska mosaic is: 25 July to 3 November 1972	Reproductions of conterminous U. S. and Alaska mosaics are available on request Band 5 (red) consists of images scanned to reproduce the red portion of the visible spectrum. This imagery is more nearly like normal black-and-white photography. It is best for showing topographic, vegetative, and cultural features Band 7 (IR) is imagery scanned in the nonvisible portion of the spectrum. This imagery is best for showing lakes, streams, marshes, and other bodies of water which appear very much darker than dry-land features in the reproduction Reproductions of the mosaics are available in sheets of the coverage area. The number of sheets is variable, depending on the scale desired. Reproductions may be ordered as single sheets or sets of sheets	LANDSAT mosaic of U. S.	Contact--1:5,000,000 Enlargement-- 1:3,300,000 Enlargement-- 1:2,500,000 Enlargement-- 1:2,000,000 Contact--1:1,000,000 Contact--1:1,000,000 rgement-- 1:750,000 Enlargement-- 1:500,000	20 x 24 (6) 30 x 40 (6) 40 x 48 (6) 40 x 60 (6) 40 x 48 (15) 20 x 24 (54) 30 x 40 (54) 40 x 48 (54)
			LANDSAT mosaic of Alaska	Contact--1:3,300,000 Enlargement-- 1:2,000,000 Contact--1:1,000,000 Contact--1:1,000,000 Enlargement-- 1:750,000 Enlargement-- 1:500,000	20 x 24 (3)‡ 40 x 48 (3) 40 x 48 (6) 20 x 24 (16) 30 x 40 (16) 40 x 48 (16)

ery are the same as described for the EROS Data Center.

	Products Available				Procedures for Obtaining Imagery
	Format	Size, in.	Cost, ea	Remarks	
nd black-	Paper prints	70 mm	1.25		Request Form ACSC 441-2, "Order for Satellite Imagery." Fill out form per instructions contained on back of the order form
		9 x 9	2.00		
		12 x 12	4.00		
		17 x 17	5.00		
		24 x 24	6.00		
		38 x 38	12.00		
	Transparencies	70 mm	2.00		
		9 x 9	3.00		
r IR	Paper prints	70 mm	4.00		
		9 x 9	7.00		
		12 x 12	12.00		
		17 x 17	15.00		
		24 x 24	20.00		
		38 x 38	30.00		
	Positive transparencies	70 mm	5.00		
		9 x 9	12.00		
(black-and-	Paper prints	20 x 24	5.00		
s of U. S.	Contact--1:5,000,000	20 x 24 (6)	7.50	All sheets--45.00	1. Request index to reproductions of LANDSAT -1 mosaics of the conterminous U. S. and Alaska from SCS
	Enlargement--1:3,300,000	30 x 40 (6)	15.00	All sheets--90.00	2. Select desired coverage from index. Only those scales and sheet formats as indicated will be processed
	Enlargement--1:2,500,000	40 x 48 (6)	18.00	All sheets--108.00	3. When ordering LANDSAT reproductions, indicate the scale of reproduction, the size of reproduction, the season imagery was obtained, the spectral band number, and the number of each sheet
	Enlargement--1:2,000,000	40 x 60 (6)	20.00	All sheets--120.00	4. SCS does not supply order forms
	Contact--1:1,000,000	40 x 48 (15)	18.00	All sheets--285.00	
	Contact--1:1,000,000	20 x 24 (54)	7.50	All sheets--405.00	
	Enlargement--1:750,000	30 x 40 (54)	15.00	All sheets--810.00	
	Enlargement--1:500,000	40 x 48 (54)	18.00	All sheets--972.00	
s of Alaska	Contact--1:3,300,000	20 x 24 (3)‡	7.50	All sheets--22.50	
	Enlargement--1:2,000,000	40 x 48 (3)	18.00	All sheets--54.00	
	Contact--1:1,000,000	40 x 48 (6)	18.00	All sheets--108.00	
	Contact--1:1,000,000	20 x 24 (16)	7.50	All sheets--120.00	
	Enlargement--1:750,000	30 x 40 (16)	15.00	All sheets--240.00	
	Enlargement--1:500,000	40 x 48 (16)	18.00	All sheets--288.00	

Agency	Imagery			
	Type	Range of Scales	Coverage	
			Areas	Per
U. S. Geological Survey (USGS) Earth Resources Observation Systems (EROS) Data Center Sioux Falls, S. Dak. 57198 EROS Applications Assistance Facility†† National Space Technology Laboratories Bay St. Louis, Miss. 39520 EROS Applications Assistance Facility†† 345 Middlefield Road Menlo Park, Calif. 94025	LANDSAT -1 and -2 Mutispectral Scanner (MSS) System Band 4--green (500-600 NM) Band 5--red (600-700 NM) Band 6--near IR (700-800 NM) Band 7--near IR (800-1100 NM) Return Beam Vidicon (RBV) System* Band 1--green (475-575 NM) Band 2--red (580-680 NM) Band 3--near IR (800-1100 NM)	1:250,000 to 1:3,369,000	LANDSAT -1 and -2 orbital parameters are basically identical with a near-polar, 500-mile circular orbit. The LANDSAT's circle the earth 14 times per day. Each pass covers a region 115 miles wide. There is some overlap between adjoining passes	Coverage ery is a July 197 LANDSAT of syste Each spa orbit to earth eve was place from LAN age of ev earth's
	SKYLAB S-190A System-Multispectral Camera / Wavelength / Film 1 — 500-600 NM (green) — Panchromatic (EK 2424) 2 — 600-700 NM (red) — Panchromatic (EK 2424) 3 — 700-800 NM (IR) — Black-and-white IR (EK 3443) 4 — 800-900 NM (IR) — Black-and-white IR (EK 3400) 5 — 500-880 NM (green, red, IR) — Color IR (EK 3400) 6 — 400-700 NM (blue, green, red) — Aerial color (SO 242) S-190B System-Single Lens Wavelength / Film 400-700 NM — Aerial color 500-700 NM — Panchromatic 500-880 NM — Color IR	S-190A System 1:1,250,000 to 1:2,850,000 S-190B System 1:125,000 to 1:950,000	Selected areas of the earth's surface. Orbital path of the space vehicle crosses the U. S. from northwest to southeast, and southwest to northeast at approximately 45 deg from the Equator. Altitude of orbit is 270 miles. Most of imagery was acquired between latitudes 50 deg north and 50 deg south. The S-190A system covers an area of approximately 100 by 100 miles. The S-190B system covers approximately 68 by 68 miles	Coverage through J July thro SKYLAB -4 February Coverage earth ever
U. S. Geological Survey (USGS) Branch of Distribution 1200 South Eads Street Arlington, Va. 22202	LANDSAT -1 mosaics--bands 5 and 7, and combinations of bands 4, 5, and 6 of the LANDSAT -1 MSS system	1:500,000 to 1:5,000,000	Florida, Arizona, and Conterminous U. S.	Coverage p Florida-No 1974 Arizona-? Conterminou to 31 Octo

* Imagery from the RBV system on board LANDSAT -1 and -2 may not be available due to malfunctions in the system.
†† These facilities act as regional support centers to the EROS Data Center in Sioux Falls, S. Dak. Both have computer terminals connecting them to the EROS Data Center. These center

2

Table A1 (Concluded)

Imagery			Products Available		
Coverage					
Areas	Period and/or Frequency	Availability and Characteristics	Type	Format	Size, in.
nd -2 orbital parameters are basi- ical with a near-polar, 500-mile bit. The LANDSAT's circle the earth r day. Each pass covers a region 115 There is some overlap between asses	Coverage period for LANDSAT imagery is as follows: LANDSAT -1, July 1972 for life of system; LANDSAT -2, January 1975 for life of system Each spacecraft was positioned in orbit to pass over each point on earth every 18 days. LANDSAT -2 was placed 180 deg out of phase from LANDSAT -1 to provide coverage of every portion of the earth's surface every 9 days	All LANDSAT imagery held by the USGS EROS Data Center is available on request at cost Each scene, covering 10,000 sq nautical miles, is imaged seven times from LANDSAT -1 and -2; three images from the RBV and four images from the MSS. The raw data are either system-corrected images (bulk processed) and provided to the Data Center in 70-mm film format, or scene-corrected images (precision processed) and provided on 240-mm film at a scale of 1:1,000,000 The Data Center has a catalog of the LANDSAT imagery and a 16-mm browse film including only one RBV and one MSS image per scene for rapid evaluation of coverage and cloud cover. Copies of the system-corrected individual images are available at contact scale, 1:3,369,000 on a 2-1/2- by 2-1/2-in. format, or enlarged by a factor of 3.369 to 1:1,000,000, approximately 9- by 9-in. format Color composites derived by processing the three RBV or three of the four MSS images together, are available only at a scale of 1:1,000,000. Copies of scene-corrected (precision) images can be obtained only at scales of 1:1,000,000 or larger (enlargements up to 1:250,000 scale are available) Processing time for most requests is one week; however, requests for film negatives, film positives, and paper prints of individual images enlarged to 1:250,000 scale will take at least two weeks to process	LADSAT -1 and -2 Blak-and-white	Paper	7.3 × 7.3 14.6 × 14.6 29.2 × 29.2
				Film positives	2.2 × 2.2 7.3 × 7.3
				Film negatives	2.2 × 2.2 7.3 × 7.3
			LADSAT -1 and -2 Coor composite (IR)	Paper	7.3 × 7.3 14.6 × 14.6 29.2 × 29.2
				Film positives	7.3 × 7.3
			LADSAT -1 and -2 Color composite generation	Printing master	7.3 × 7.3
			LADSAT -1 and -2 Cqputer-compatible tapes	7 tracks, 800 bpi 9 tracks, 800 bpi 9 tracks, 1600 bpi	-- -- --
eas of the earth's surface. Orbital space vehicle crosses the U. S. st to southeast, and southwest to . approximately 45 deg from the ltitude of orbit is 270 miles. Most was acquired between latitudes 50 nd 50 deg south. The S-190A system rea of approximately 100 by 100 miles. system covers approximately 68 by	Coverage period: SKYLAB -2, May through June 1973; SKYLAB -3, July through September 1973; SKYLAB -4, November through February 1974 Coverage frequency: orbits the earth every 93 min	All SKYLAB imagery held by the USGS EROS Data Center is available on request The S-190A imagery is composed of basic 70-mm film format and ranges in the spectrum from narrow-band black-and-white to broad-band color and color IR. Copies of this imagery are available in contact print, film positive, and film negative formats (color film negative is not available). Enlargements to a scale of 1:250,000 are available The S-190B imagery is single-lens, high-resolution imagery utilizing a 4.5-in. film and an 18-in. focal length lens. Various film formats are available and consist of contact prints, film positives, and film negatives (no color film negatives available). Enlargements to a scale of 1:125,000 are available	SKYLAB -2, -3, and -4 S-190A-Black-and-white	Paper	6.4 × 6.4 12.8 × 12.8 25.6 × 25.6
				Film positives	2.2 × 2.2
				Film negatives	2.2 × 2.2
			SKYLAB -2, -3, and -4 S-190A-color	Paper	6.4 × 6.4 12.8 × 12.8 25.6 × 25.6
				Film positives	2.2 × 2.2
			SKYLAB -2, -3, and -4 S-190B-Black-and-white	Paper	4.5 × 4.5 8.6 × 8.6 17.2 × 17.2 34.4 × 34.4
				Film positives	4.5 × 4.5
				Film negatives	4.5 × 4.5
			SKYLAB -2, -3, and -4 S-190B-color	Paper	4.5 × 4.5 8.6 × 8.6 17.2 × 17.2 34.4 × 34.4
				Film positives	4.5 × 4.5
rizona, and Conterminous U. S.	Coverage periods are as follows: Florida-November 1972 to April 1974 Arizona-? Conterminous U. S.-25 July 1972 to 31 October 1972	All LANDSAT -1 mosaics are available from USGS on request The Florida mosaic is at a scale of 1:500,000 and is a "false-color" type made from parts of 18 separate images. The mosaic combines visible and IR bands of the spectrum. Green vegetation appears red, urban areas are bluish-gray, bare ground and sand are light colors, and water ranges from black to light blue The Arizona mosaic was made from 24 separate images taken in three bands in the visible and IR spectra by the LANDSAT -1 MSS system. Most of the images in the mosaic are from the IR part of the spectrum. Two versions of the mosaic are available: one in black-and-white and the other in sepia with cultural and drainage information overprinted. The scale of the mosaic is 1:500,000 The U. S. mosaic was made from 595 separate images of two bands of the LANDSAT -1 MSS system-bands 5 and 7. The scale of the mosaic is 1:5,000,000. It is available in either band 5 or band 7	Florida mosaic Arizona mosaic U. S. mosaic	Lithographic Lithographic (black-and-white) Lithographic (sepia) Lithographic-band 5 or 7	44 × 58 48 × 60 48 × 60 40 × 30

necting them to the EROS Data Center. These centers provide assistance in obtaining imagery products held at the EROS Data Center, and furnish guidance for using remotely sensed data.

	Products Available				Procedures for Obtaining Imagery
	Format	Size, in.	Cost, ea	Remarks	
	Paper	7.3 x 7.3 14.6 x 14.6 29.2 x 29.2	2.00 5.00 12.00	NASA LANDSAT Catalogs U. S. coverage--monthly 1.25 Non-U. S. coverage--monthly 1.25 U. S. coverage--cumulative 1972-1973 1.25 Non-U. S. coverage--cumulative 1972-1973 1.25	1. To request copies of LANDSAT and SKYLAB imagery, first obtain Geographic Computer Search inquiry form from the EROS Data Center, or from the regional EROS Assistance Facilities. Fill out form and send to either of the EROS offices for processing. Based on the information contained in the inquiry form, the Data Center computer will search for the appropriate materials, indicating what is available for the requester's area of interest meeting the requester's specifications. The computer will provide a printout of references from which a final selection can be made. From information in the computer printout, it is possible to locate the browse film of the imagery to check for percentage of cloud cover and geographic coverage before placing an order 2. After the computer search is completed, the Data Center will send the requester the computer printout along with a decoding sheet and order forms. The requester can then select the coverage desired for the area of interest and submit the order to the Data Center 3. Imagery can also be obtained by telephoning or visiting the Data Center or the Assistance Facilities. The requester should be prepared to provide sufficient information concerning the location of the area of interest, what the data will be used for, etc.
	Film positives	2.2 x 2.2 7.3 x 7.3	2.00 3.00		
	Film negatives	2.2 x 2.2 7.3 x 7.3	2.00 3.00		
? (IR)	Paper	7.3 x 7.3 14.6 x 14.6 29.2 x 29.2	7.00 15.00 30.00		
	Film positives	7.3 x 7.3	12.00		
? generation	Printing master	7.3 x 7.3	50.00		
? ble tapes	7 tracks, 800 bpi 9 tracks, 800 bpi 9 tracks, 1600 bpi	-- -- --	200.00 200.00 200.00		
nd -4 -white	Paper	6.4 x 6.4 12.8 x 12.8 25.6 x 25.6	2.00 5.00 12.00	A SKYLAB Earth Resources Data Catalog is available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402. Cost is $12.50 per copy. The catalog includes an index of 35,000 photographs taken in 1973-74 during the SKYLAB missions	
	Film positives	2.2 x 2.2	2.00		
	Film negatives	2.2 x 2.2	4.00		
nd -4	Paper	6.4 x 6.4 12.8 x 12.8 25.6 x 25.6	7.00 15.00 30.00		
	Film positives	2.2 x 2.2	5.00		
nd -4 -white	Paper	4.5 x 4.5 8.6 x 8.6 17.2 x 17.2 34.4 x 34.4	2.00 2.00 5.00 12.00		
	Film positives	4.5 x 4.5	2.00		
	Film negatives	4.5 x 4.5	4.00		
nd -4	Paper	4.5 x 4.5 8.6 x 8.6 17.2 x 17.2 34.4 x 34.4	6.00 7.00 15.00 30.00		
	Film positives	4.5 x 4.5	6.00		
	Lithographic Lithographic (black-and-white) Lithographic (sepia) Lithographic-band 5 or 7	44 x 58 48 x 60 48 x 60 40 x 30	3.00 1.25 1.75 1.25	Specify band desired	Submit written request to USGS, or request information and order forms for LANDSAT -1 mosaics

ce for using remotely sensed data.

Table A2

Summary of Available Remote Sensing Imagery--Corps of Engi

Agency or Organization		Imagery				
					Coverage	
Division	District	Type	Range of Scales	Area	Period	
U. S. ARMY ENGR DIV, LOWER MISS. VALLEY Mail Address: P. O. Box 80 Vicksburg, Miss 39180	U. S. Army Engr Dist, MEMPHIS 668 Clifford Davis Federal Building Memphis, Tenn. 38103	Panchromatic Color	1:3,000-1:36,000	Mississippi River and its tributaries within district boundaries	1943-1975	Photog... alon... wate... peri... area... need...
	U. S. Army Engr Dist, NEW ORLEANS Mail Address: P. O. Box 60267 New Orleans, La. 70160	Panchromatic Color Color IR	1:2,000-1:48,000 Predominant-- 1:10,000-1:20,000	Mississippi River, Mississippi Delta, Red River, Calcasieu River, Intracoastal Waterway, Lake Pontchartrain perimeter, Mississippi River Outlet, Atchafalaya Basin, coastal Louisiana	1930-1975	As req...
	U. S. Army Engr Dist, ST. LOUIS 210 North 12th St. St. Louis, Mo. 63101	Panchromatic Black-and-white IR Color Color IR	1:12,000-1:24,000	360 miles of Mississippi River, first 80 miles of Illinois River, and portions of Kaskaskia River	1929-1975	As req...
	U. S. Army Engr Dist, VICKSBURG Mail Address: P. O. Box 60 Vicksburg, Miss. 39180	Panchromatic Color IR	1:4,800-1:20,000	Primarily along Mississippi River (levee to levee) with some tributaries and reservoirs as required. Entire division photographed with Color IR in 1974	1930-1975	Mississ... annu... cover...
U. S. ARMY ENGR DIV, MISSOURI RIVER Mail Address: P. O. Box 103 Downtown Station Omaha, Nebr. 68101	U. S. Army Engr Dist, KANSAS CITY Mail Address: 700 Federal Bldg. Kansas City, Mo. 64106	Panchromatic Color Color IR Black-and-white IR Side-looking airborne radar (SLAR)	1:4,800-1:250,000	Missouri River and its major tributaries, reservoirs both active and proposed	1930-1975	Missouri... 3 yr.
	U. S. Army Engr Dist, OMAHA Mail Address: 6014 USPO & Courthouse Office Location: 215 North 17th St. Omaha, Nebr. 68101	Panchromatic Color Color IR	1:6,000-1:24,000	Missouri River (mouth to Gavins Pt.), dam reservoirs (Ft. Peck, etc.), military reservations, parts of Yellowstone, Vermillion, James, Floyd, and Little Sioux Rivers	1928-1975	As requ...
U. S. ARMY ENGR DIV, NEW ENGLAND 424 Trapelo Road Waltham, Mass. 02154		Panchromatic Color Color IR Thermal IR				
U. S. ARMY ENGR DIV, NORTH ATLANTIC 90 Church St. New York, N. Y. 10007	U. S. Army Engr Dist, BALTIMORE Mail Address: P. O. Box 1715 Baltimore, Md. 21203	Panchromatic Color SLAR Thermal IR Color IR	1:600-1:125,000	Shenandoah Valley, damsites, reservoirs, all of Chesapeake Bay	Late 1940's-1975	As requ...
	U. S. Army Engr Dist, NEW YORK 26 Federal Plaza New York, N. Y. 10007	Panchromatic	1:4,800-?	Entire district except portions of Vermont, all major river basins, harbors, reservoirs	196...-1975	As requ...
	U. S. Army Engr Dist, NORFOLK 803 Front St. Norfolk, Va. 23510	Panchromatic Color Color IR	1:1,200-?			As requ...
	U. S. Army Engr Dist, PHILADELPHIA U. S. Custom House 2nd & Chestnut St. Philadelphia, Pa. 19106	Panchromatic Color	1:600-1:24,000			
U. S. ARMY ENGR DIV, NORTH CENTRAL 536 S. Clark St. Chicago, Ill. 60605	U. S. Army Engr Dist, BUFFALO 1776 Niagara St. Buffalo, N. Y. 14207	Panchromatic Color	1:2,400-1:120,000	Lake Erie and Lake Ontario shorelines, St. Lawrence Seaway, Presque Isle Peninsula, all major streams emptying into Lakes Erie and Ontario for about 2 miles upstream from lakes	1940's-1975	As requi... distri... menci...

(Continued)

Note: Corps of Engineer Districts do not generally maintain standard cost lists for reproduction of district-held photographic coverages. They normally figure cost... assist in making arrangements with commercial processing firms for the reproduction of desired coverages.

Table A2

of Available Remote Sensing Imagery--Corps of Engineers Agencies

Imagery			Availability and Characteristics of Imagery	Procedures for Obtaining Imagery
Area	Coverage Period	Frequency		
ppi River and its tribu- within district boundaries	1943-1975	Photography normally taken annually along Mississippi River during low-water periods in fall and high-water periods in spring. Other coverage areas are generally flown as the need arises	Photography normally available to other Government agencies; 9- by 9- in. contact prints; uncontrolled and controlled mosaics; and other formats. Reproduction facilities at district office limited to panchromatic photography. Photo indexes available for coverages	Chief, Engineering Div, Memphis District
ppi River, Mississippi Red River, Calcasieu River, oastal Waterway, Lake artrain perimeter, Missis- River Outlet, Atchafalaya coastal Louisiana	1930-1975	As required	Photography normally available to other Government agencies; consists primarily of contact prints and mosaics ranging from 7- by 7- to 15- by 15-in. Reproduction facilities at district office limited to panchromatic photography. About 98% of coverage indexed on topographic maps at various scales, remainder consists of photo indexes	Chief, Drafting Branch, Engineering Div, New Orleans District
s of Mississippi River, 80 miles of Illinois River, rtions of Kaskaskia River	1929-1975	As required	Photography normally available to other Government agencies; consists of contact prints and positive transparencies. No in-house reproduction capability. Photo indexes available at scales ranging from 1:36,000 to 1:60,000.	Chief, Mapping Section (ED-S), Survey Branch, St. Louis District
y along Mississippi River to levee) with some aries and reservoirs as ad. Entire division photo- d with Color IR in 1974	1930-1975	Mississippi River normally flown annually when possible. Other coverage areas flown as required	Photography normally available to other Government agencies; consists of contact prints, mosaics, and roll film positives. Reproduction facilities at district office limited to panchromatic photography. Photographic coverage indexed on maps of various scales; flight lines and frame numbers shown	District Engineer, Vicksburg District
River and its major tribu- , reservoirs both active and ed	1930-1975	Missouri River photographed every 2 or 3 yr. Other areas flown as required	Photography normally available to other Government agencies; consists generally of 9- by 9-in. contact prints. Color IR available in positive transparencies for black-and-white contact prints. Radar coverage in negatives. District reproduction facilities limited to panchromatic film. Photo and map indexes available for coverages	Chief, Drafting Section, Kansas City District
River (mouth to Gavins dam reservoirs (Ft. Peck, military reservations, of Yellowstone, Vermillion, Floyd, and Little Sioux	1928-1975	As required	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints and color transparencies. District has no reproduction facilities. Photo and map indexes available for coverage	Chief, Surveys and Mapping, Omaha District
h Valley, damsites, oirs, all of Chesapeake	Late 1940's-1975	As required	Coverages available to other Government agencies; consists primarily of 9- by 9-in. contact prints and film positives. Reproduction facilities at district office limited to panchromatic photography. Coverage indexed by card files, photo indexes, and map flight-line indexes	Remote Sensing Coordinator, Baltimore District
istrict except portions of , all major river basins, , reservoirs	1965-1975	As required	Coverages available to other Government agencies; consists primarily of 9- by 9-in. contact prints. Reproduction facilities at district office limited to panchromatic photography. Photo and flight-line indexes available for coverage	Chief, Drafting Section, New York District
		As required		
and Lake Ontario shore- St. Lawrence Seaway, Isle Peninsula, all major emptying into Lakes Erie ario for about 2 miles m from lakes	1940's-1975	As required; plan to fly entire district in color annually commencing in 1975	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints. Limited reproduction facilities at district office for panchromatic and color photography. Coverage not presently indexed, but will be in near future	Chief, Foundations and Materials Branch, Buffalo District

(Continued)

photographic coverages. They normally figure costs for reproduction on an individual-request basis. Those districts that have no reproduction facilities will normally

Table A2 (Continued)

Agency or Organization		Imagery				
				Coverage		
Division	District	Type	Range of Scales	Area	Period	
U. S. ARMY ENGR DIV, NORTH CENTRAL (Cont'd) 536 S. Clark St. Chicago, Ill. 60605	U. S. Army Engr Dist, CHICAGO 219 Dearborn St. Chicago, Ill. 60604	Panchromatic Color Black-and-white IR	1:3,000-1:24,000	Navigable waterways (Illinois waterway, Sangamon River), Lake Michigan shoreline, reservoirs (proposed and active)	Early 1960's (primarily)	As re
	U. S. Army Engr Dist, DETROIT Mail Address: P. O. Box 1027 Detroit, Mich. 48231	Panchromatic Color	1:6,000-1:10,000	Entire district flown in 1974 at scale 1:10,000. Lower and upper Michigan peninsulas in color at 1:6000. Great Lakes shoreline and major rivers	1973-1975	As re
	U. S. Army Engr Dist, ROCK ISLAND Clock Tower Bldg. Rock Island, Ill. 61201	Panchromatic Color IR	1:6,000-1:30,000	Mississippi River, Des Moines River (Frazer to mouth), Iowa River (Chelsea to mouth), Rock River (mouth into Wisconsin), numerous smaller streams	1973-1975	Cover str in spr
	U. S. Army Engr Dist, ST. PAUL 1135 USPO & Custom House St. Paul, Minn. 55101	Panchromatic	1:5000-?	Mississippi River and other major river systems and basins	1920-1975	Durin
U. S. ARMY ENGR DIV, NORTH PACIFIC 210 Custom House Portland, Oreg. 97209 Office Location: 220 N. W. 8th Ave. Portland, Oreg. 97209	U. S. Army Engr Dist, ALASKA Mail Address: P. O. Box 7002 Anchorage, Alaska 99510 Office Location: Bldg. 21-700 Elmendorf Air Force Base, Alaska					
	U. S. Army Engr Dist, PORTLAND Mail Address: P. O. Box 2946 Portland, Oreg. 97208 Office Location: 2850 S.E. 82nd Ave. Portland, Oreg. 97266	Panchromatic Color Color IR	1:6,000-1:24,000	Columbia River, Willamette River and tributaries, reservoirs, coastal areas around mouths of of rivers	1936-1975	As re
	U. S. Army Engr Dist, SEATTLE 4735 East Marginal Way South Seattle, Wash. 98134	Panchromatic Color Color IR	1:360-1:48,000	All Columbia River and other major rivers, Pacific coastline, Puget Sound area, construction sites	1930-1975	Annual are
	U. S. Army Engr Dist, WALLA WALLA Bldg. 602, City-County Airport Walla Walla, Wash. 99362	Panchromatic Color	1:2,000-1:84,000 Predominant--1:4800-1:6000	Columbia River (John Day Dam to Richland), Snake River (mouth to Jackson Hole, Wyo.), and various other rivers and creeks within the district boundary	1949-1975	As re
U. S. ARMY ENGR DIV, OHIO RIVER Mail Address: P. O. Box 1159 Cincinnati, Ohio 45201 550 Main St. Cincinnati, Ohio 45201	U. S. Army Engr Dist, HUNTINGTON Mail Address: P. O. Box 2127 Huntington, W. Va. 25721	Panchromatic Color Color IR	1:3,000-1:24,000	All reservoirs, urban areas, all of Ohio River and its larger tributaries	1958-1975	As re
	U. S. Army Engr Dist, LOUISVILLE Mail Address: P. O. Box 59 Louisville, Ky. 40201	Panchromatic Color Color IR Thermal IR	1:3,000-1:12,000 Predominant--1:12,000	All district reservoirs, damsites, entire Ohio River from Mississippi River to Meldahl Dam and all Ohio River tributaries	1937-1975	Flown riv flo spe poll
	U. S. Army Engr Dist, NASHVILLE Mail Address: P. O. Box 1070 Nashville, Tenn. 37202	Panchromatic Color	1:5,000-1:24,000	Lock-and-dam projects, Cumberland River Basin, some on Tennessee River; district reservoirs; Ohio River from its mouth to Uniontown Lock and Dam	1930-1975	As re
	U. S. Army Engr Dist, PITTSBURGH Federal Bldg. 1000 Liberty Ave. Pittsburgh, Pa. 15222	Panchromatic Color Color IR	1:4,800-1:16,560	Ohio River and tributaries (all navigable streams), reservoirs	Late 1930's-1975	Most re "le
U. S. ARMY ENGR DIV, SOUTH ATLANTIC 510 Title Bldg. 30 Pryor St., S.W. Atlanta, Ga. 30303	U. S. Army Engr Dist, CHARLESTON Mail Address: P. O. Box 919 Charleston, S. C. 29402	Panchromatic Color	1:7,200-1:24,000	Coastline, reservoirs, and some waterways	Late 1960's-1975	As re

(Continued)

Table A2 (Continued)

Imagery			Availability and Characteristics of Imagery	Procedures for Obtaining Imagery
Area	Coverage Period	Coverage Frequency		
waterways (Illinois watergamon River), Lake shoreline, reservoirs and active)	Early 1960's (primarily)	As required	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints and some glass plate diapositives. No reproduction facilities at district office. Photo indexes and flight-line map indexes of coverage available	Chief, Engineering Division, Chicago District
strict flown in 1974 at :10,000. Lower and upper an peninsulas in color at Great Lakes shoreline er rivers	1973-1975	As required	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints. No reproduction facilities at district office. Photo indexes of coverage available	Chief, General Regulatory Branch, Detroit District
i River, Des Moines River to mouth), Iowa River to mouth), Rock River into Wisconsin), numerous streams	1973-1975	Coverage normally obtained along major streams annually--low-water period in fall and high-water period in spring	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints and positive transparencies. No reproduction facilities at district office. Photo indexes maintained for panchromatic photography only	Remote Sensing Coordinator, Rock Island District
i River and other major ystems and basins	1920-1975	During flooding and as required	Photography available to other Government agencies; consists primarily of 7- by 9-, 9- by 9-, and 10- by 10-in. contact prints. Reproduction capability limited to microfilmed coverage. Photo indexes and various map indexes available	District Engineer, ATTN: NCSED-D, St. Paul District
River, Willamette River butaries, reservoirs, areas around mouths of rs	1936-1975	As required	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints and positive transparencies. Reproduction facilities at district office limited to panchromatic photography. Coverage indexed on 15-min quadrangles	Chief, Photogrammetry Section, Portland District
bia River and other major Pacific coastline, Puget rea, construction sites	1930-1975	Annually along coastline; other areas as required	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints. Reproduction facilities at district office limited to panchromatic photography. Photo indexes available for coverage	Chief, Photogrammetry Section, Seattle District
River (John Day Dam to), Snake River (mouth to Zole, Wyo.), and various ivers and creeks within trict boundary	1949-1975	As required	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints. Reproduction facilities at district office limited to panchromatic photography. Photo and map indexes available for coverage	Chief, Photogrammetry Section, Walla Walla District
voirs, urban areas, all of ver and its larger tribu-	1958-1975	As required	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints. Reproduction facilities at district office for panchromatic and color photography. Photo indexes available for all coverage, except for very small project areas	Chief, Survey Branch, Huntington District
ict reservoirs, damsites, Ohio River from Mississippi Meldahl Dam and all Ohio ributaries	1937-1975	Flown generally as maps of reservoirs, rivers, etc., are updated. Also flown on "as-needed" basis for special projects, e.g. permits, pollution studies	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints, glass diapositives, and positive transparencies. Reproduction facilities at district office limited to panchromatic and color photography. Photo indexes available for most of the coverage	Chief, Survey Branch, Louisville District
dam projects, Cumberland sin, some on Tennessee district reservoirs; Ohio rom its mouth to Uniontown d Dam	1930-1975	As required	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints. No reproduction facilities at district office. Photo indexes available for coverage	Chief, Survey Branch, Nashville District
r and tributaries (all le streams), reservoirs	Late 1930's-1975	Most acquired on "as-needed" basis, reservoir areas flown during "leaf-on" season	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints and positive transparencies. No reproduction facilities at district office. Coverage indexed on 7-1/2-min quadrangles and photo indexes	Chief, Mapping Section, Pittsburgh District
, reservoirs, and some gs	Late 1960's-1975	As required	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints and some controlled mosaics. No reproduction facilities at district office. Photo indexes available for coverage	Chief, Engineering Division, Charleston District

(Continued)

Table A2 (Continued)

Agency or Organization		Imagery				
				Coverage		
Division	District	Type	Range of Scales	Area	Period	
U. S. ARMY ENGR DIV, SOUTH ATLANTIC (Cont'd) 510 Title Bldg. 30 Pryor St., S.W. Atlanta, Ga. 30303	U. S. Army Engr Dist, JACKSONVILLE Mail Address: P. O. Box 4970 Jacksonville, Fla. 32201	Panchromatic	1:7,200-1:10,000 Predominant--1:10,000	St. John's River, harbors, navigable waterways, construction sites, Florida coastline within district boundary	1930-1975	As requi
	U. S. Army Engr Dist, MOBILE Mail Address: P. O. Box 2288 Mobile, Ala., 36628	Panchromatic Color Color IR Black-and-white IR	1:2,400-1:30,000	Military installations, navigable waterways, some beach and coastal areas (Fla., Ala., Miss.), major harbors	Early 1940's-1975	As requi
	U. S. Army Engr Dist, SAVANNAH Mail Address: P. O. Box 889 Savannah, Ga. 31402	Panchromatic	1:1,200-1:24,000	Reservoirs, harbors, and waterways	1952-1975	As requi
	U. S. Army Engr Dist, WILMINGTON Mail Address: P. O. Box 1890 Wilmington, N. C. 28401	Panchromatic Color Color IR Black-and-white IR	1:4,800-1:20,000	Coastal areas, navigable waterways, reservoirs, damsites	1963-1975	Inlets c
U. S. ARMY ENGR DIV, SOUTH PACIFIC Mail Address: 630 Sansome St., Rm 1216 San Francisco, Calif. 94111	U. S. Army Engr Dist, LOS ANGELES Mail Address: P. O. Box 2711 Los Angeles, Calif. 90053	Panchromatic Color	1:2,400-1:24,000	Coastline within district, Colorado River, reservoirs, and damsites	1939-1975	As requi
	U. S. Army Engr Dist, SACRAMENTO 650 Capitol Mall Sacramento, Calif. 95814	Panchromatic Black-and-white IR Color	1:2,400-1:24,000 Predominant--1:6,000	Predominantly Sacramento and San Joaquin watersheds; also military installations within district and miscellaneous watersheds	1937-1975	As requi
	U. S. Army Engr Dist, SAN FRANCISCO 100 McAllister St. San Francisco, Calif. 94102	Panchromatic Color Color IR Thermal IR SLAR Multispectral	1:4,600-1:250,000	Coastline from Oregon-California border to Mexico-California border, San Francisco Bay and bay area. Salinas River and Russian River Basins (all), navigable streams, rivers, channels, harbors, and special project areas	1939-1975	Coastlin requir
U. S. ARMY ENGR DIV, SOUTHWESTERN 1200 Main St. Dallas, Tex. 75202	U. S. Army Engr Dist, ALBUQUERQUE Mail Address: P. O. Box 1580 Albuquerque, N. Mex. 87103	Panchromatic Color	1:1200-1:6000	Rio Grande River and its tributaries, reservoirs, middle Rio Valley	1966-1975	As requi
	U. S. Army Engr Dist, FORT WORTH Mail Address: P. O. Box 17300 Ft. Worth, Tex. 76102	Panchromatic	1:4,800-1:36,000	Reservoirs, streams where dams are located		Plan to in wi prior constr
	U. S. Army Engr Dist, GALVESTON Mail Address: P. O. Box 1229 Galveston, Tex. 77550	Panchromatic Color	1:1,200-1:24,000	Coastal areas and inland for 200 miles; navigable waterways	Early 1960's-1975	Coastal annual Other
	U. S. Army Engr Dist, LITTLE ROCK Mail Address: P. O. Box 867 Little Rock, Ark. 72203	Panchromatic Black-and-white IR	1:4,800-1:20,000 Predominant--1:12,000	Arkansas River and its tributaries, reservoirs--prior to and after impoundment	1932-1975	Navigabl annual in the flown
	U. S. Army Engr Dist, TULSA Mail Address: P. O. Box 61 Tulsa, Okla. 74102	Panchromatic Color	1:10,000-1:40,000	Arkansas River (Tulsa to Ft. Smith at Ark. state line), flood control reservoirs, various other construction projects	1940-1975	As requi when t
U. S. ARMY ENGR DIV, HUNTSVILLE Mail Address: P. O. Box 1600 West Station Huntsville, Ala. 35807		Panchromatic Color IR	Predominantly 1:7200	Primarily limited to military construction projects located throughout U. S. and some military installations	1935-1975	As requi

(Continued)

Table A2 (Continued)

Imagery				
Coverage				
Area	Period	Frequency	Availability and Characteristics of Imagery	Procedures for Obtaining Imagery
iver, harbors, navigable construction sites, astline within district	1930-1975	As required	Photography available to other Government agencies; consists of 9- by 9- and 9- by 18-in. contact prints. Reproduction facilities at district office limited to panchromatic photography. Photo indexes available for coverage	Chief, Engineering Division, Jacksonville District
tallations, navigable some beach and coastal ., Ala., Miss.), major	Early 1940's-1975	As required	Photography available to other Government agencies; consists primarily of 3- by 3- and 9- by 9-in. contact prints. Reproduction facilities at district office limited to panchromatic photography. Photo indexes available for coverage	Chief, Survey Section, Mobile District
harbors, and waterways	1952-1975	As required	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints. No reproduction facilities at distric office. Photo indexes available for coverage	Chief, Engineering Div, Savannah District
, navigable waterways, , damsites	1963-1975	Inlets often; other areas as required	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints and positive transparencies. Reproduction facilities limited to panchromatic photography. Photo indexes available for portions of coverage	Chief, Design Branch, Wilmington District
thin district, Colorado ervoirs, and damsites	1939-1975	As required	Photography available to other Government agencies; consists of 9- by 9-in. contact prints. Reproduction facilities at district limited to panchromatic photography. Coverage indexed on punch cards and 35-mm aperture cards	Chief, Survey Branch, Los Angeles District
y Sacramento and San tersheds; also military ons within district and ous watersheds	1937-1975	As required	Photography available to other Government agencies; consists of 9- by 9-in. contact prints. No reproduction facilities at district office. Photography indexed on cards by watershed and date	Chief, Engineering Div, Sacramento District
m Oregon-California Mexico-California bor-rancisco Bay and bay inas River and Russian s (all), navigable ivers, channels, har-special project areas	1939-1975	Coastline every 2 yr; other as required	Photography available to other Government agencies; includes 70-mm, 5- by 5-, 9- by 9-, and 8- by 10-in. contact prints and positive transparencies. Reproduction facilities at district limited to small amounts of copy work. Photo indexes, catalogs, map, and card indexes available for coverage	District Remote Sensing Coordinator and/or Chief, Foundations and Materials Branch, San Francisco District
iver and its tribu-ervoirs, middle Rio	1966-1975	As required	Photography available to other Government agencies; consists of 9- by 9-in. contact prints. Reproduction facilities at district office limited to panchromatic photography. Photo and map indexes of coverage available	Chief, Design Branch, Albuquerque District
streams where dams are		Plan to fly all navigable streams in winter of 1975 and reservoirs prior to and upon completion of construction	Photography available to other Government agencies; consists of 9- by 9-in. contact prints. No reproduction facilities available at district office. Photo indexes of coverage available	Chief, Foundations and Materials Branch, Fort Worth District
and inland for 200 gable waterways	Early 1960's-1975	Coastal entrance channels flown annually in the early fall season. Other areas flown as required	Photography available to other Government agencies; consists of 9- by 9-in. contact prints. Reproduction facilities at district office limited to panchromatic photography. Photo and map indexes of coverage available	Chief, Survey Branch Galveston District
r and its tributaries, -prior to and after	1932-1975	Navigable waterways normally flown annually during low-water periods in the winter season. Other areas flown as required	Photography available to other Government agencies; consists of 9- by 9-in. contact prints. Reproduction facilities at district office generally limited to panchromatic photography. Photo indexes of coverage available	Chief, Survey Branch, Little Rock District
r (Tulsa to Ft. Smith te line), flood con-oirs, various other m projects	1940-1975	As required (most flown in winter when there is little foliage)	Photography available to other Government agencies; consists of 9- by 9-in. contact prints. Reproduction facilities at district office limited to panchromatic photography. Photo and map indexes available for about 75 percent of coverage	Chief, Office of the Administrative Services, Tulsa District
ited to military con-rojects located U. S. and some tallations	1935-1975	As required	Photography generally available to other Government agencies. Some coverages may require special handling/or restricted usage; consists primarily of 9- by 9-, 9- by 11-, and 20- by 20-in. contact prints and positive transparencies. No reproduction facilities at division office. Photo and map indexes are available for coverage	Chief, Engineering Div, Huntsville Division

(Continued)

Table A2 (Concluded)

Agency or Organization		Imagery				
				Coverage		
Division	District	Type	Range of Scales	Area	Period	
U. S. ARMY COASTAL ENGR RESEARCH CENTER (CERC) Kingman Building Ft. Belvoir, Va. 22060		Panchromatic Black-and-white IR Color Color IR	1:1,200-1:24,000	Coastal areas of the U. S.	1940's--1975	As requir
U. S. ARMY ENGR TOPOGRAPHIC LABORATORIES (ETL) RESEARCH INSTITUTE CENTER FOR REMOTE SENSING Ft. Belvoir, Va. 22060		Panchromatic Color Color IR Thermal IR	1:5,000-1:100,000 Predominant--1:20,000	Primarily Alaska, Canada, domestic United States, Southeast Asia, and Panama (in order of most extensive coverage). Thermal IR coverage generally limited to Arctic and sub-Arctic areas, with some tropical and desert coverage	1937-1975	Some area ferent
U. S. ARMY COLD REGIONS RESEARCH & ENGRG LAB (CRREL) Mail Address: P. O. Box 282 Hanover, N. H. 03755		Panchromatic Color Color IR	1:2,400-1:24,000	Alaska, New England region, and Puerto Rico	1971-1975	Many area basis, New Engl once a flown a research

Table A2 (Concluded)

Imagery				
	Coverage			
Area	Period	Frequency	Availability and Characteristics of Imagery	Procedures for Obtaining Imagery
eas of the U. S.	1940's--1975	As required	Photography available to other Government agencies; includes 9- by 9- and 9- by 18-in. contact prints and positive transparencies. Reproduction facilities at Center limited to copying at true-scale format. Coverage is indexed on 35-mm aperture cards and is part of a comprehensive data bank of U. S. coastal imagery established by CERC. Indexing is being done on a Corps of Engineers division or district basis	Chief, Engineering Development Div, CERC
Alaska, Canada, domestic tates, Southeast Asia, a (in order of most ex- overage). Thermal IR generally limited to Arc- ub-Arctic areas, with ical and desert coverage	1937-1975	Some areas characterized by six different periods of coverage	Photography available to other Government agencies; consists primarily of 9- by 9-in. contact prints and some positive transparencies. Center has no reproduction facilities, but can arrange for reproduction of imagery at Defense Mapping Agency. Photo and map indexes available for coverage. Part of coverage is experimental imagery in near or visual portion of the spectrum and may not be readily available to other agencies	Chief, Center for Remote Sensing, ETL
England region, and ico	1971-1975	Many areas flown on a repetitive basis, e.g. Corps reservoirs in New England are normally flown once a year. Other areas generally flown as required in support of research projects	Photography generally available to other Government agencies; consists primarily of 70-mm, 7- by 7- and 9- by 9-in. negatives, contact prints, and positive transparencies. Reproduction facilities available for reproduction of most types of photography. Photo indexes and catalog indexes available for most of the coverage	Chief, Photo Services Office, CRREL

State	Agency or Organization	Imagery					
		Type	Format	Range of Scales	Flown by	Area	Cover Per
Alabama	Alabama Highway Dept. 11 South Union St. Montgomery, Ala. 36104	Black-and-white	9- by 9-in. contact prints	1:4,800-1:40,000 Predominant-- 1:20,000	USDA, and commercial firms	County-wide coverage of the state. Additional coverages along certain roadway corridors	1952-19
	Alabama State Dept. of Revenue Ad Valorem Tax Div. 1021 Madison Ave. Montgomery, Ala. 36111	Black-and-white	9- by 9-in. negatives and contact prints	1:3,600-1:24,000	Commercial firms	Full coverage of all counties in state	1972-19
	Geological Survey of Alabama P. O. Drawer O University, Ala. 35486	Black-and-white Black-and-white IR Color IR Thermal IR	70-mm (Thermal IR) 9- by 9-in. contact prints and positive transparencies	1:6,000-1:24,000	USDA, USGS, NASA, and commercial firms	Mobile Bay area, Alabama oil fields, and many widely scattered sites throughout state	1970-19
Arizona	Arizona Highway Dept. 1731 W. Jackson Room 61 Phoenix, Ariz. 85007	Black-and-white	9- by 9-in. original negatives and contact prints	1:3,000-1:90,000 Predominant-- 1:36,000	In-house photo aircraft, NASA	Major metropolitan areas. Existing highways and proposed highway sites	1936-19
Arkansas	Arkansas Highway Dept. P. O. Box 2261 Little Rock, Ark. 77203	Black-and-white Color (planned for near future)	9- by 9-in. original negatives and contact prints	1:3,000-1:20,000 Predominant-- 1:20,000	In-house photo aircraft	All state counties	1967-19
	Dept. of Parks and Tourism State Parks Div. 1510 Broadway Little Rock, Ark. 72202	Black-and-white	9- by 9-in. contact prints Large mosaics	1:2400-1:4800	Arkansas Highway Dept. and commercial firms	State parks throughout state	1969-19
California	California Dept. of Transportation 1120 N Street Sacramento, Calif. 95805	Black-and-white Color	9- by 9- and 9- by 18-in. original negatives and contact prints	1:2,400-1:180,000 Predominant--1:3000	Commercial firms and Government agencies	Highways and proposed highway sites, counties (incomplete), and major urban areas	1927-19
Colorado	Dept. of Highways 4201 E. Arkansas St. Denver, Colo. 80222	Black-and-white Color (limited)	9- by 9-in. original negatives, glass diapositives, and contact prints	1:1,200-1:12,000	Commercial firms	Existing highways and proposed highway sites	Early 1 -1975
	Dept. of Natural Resources Colorado Geological Survey Room 254, Columbine Bldg. 1845 Sherman St. Denver, Colo. 80203	Black-and-white	9- by 9-in. contact prints, quad-centered	1:80,000	Commercial firms	41% of state complete. Remaining 59% has been flown and will become available in mid-1976	1970-19
Connecticut	Dept. of Environmental Protection Natural Resources Center 165 Capitol Ave. Hartford, Conn. 06115	Black-and-white Color Color IR	9- by 9-in. contact prints and positive transparencies	1:2,400-1:12,000 Predominant-- 1:12,000	Commercial firms	Entire state-1:12,000. Shoreline areas-1:2400	1932-19
	Dept. of Transportation 24 Wolcott Hill Rd. Wethersfield, Conn. 06109	Black-and-white	9- by 9-in. contact prints, enlargements to 18 by 18 in.	Predominantly 1:2400	Commercial firms	Entire state (1:2400 in 1975) and proposed and existing highways	1960-19
Delaware	Dept. of Highways and Transportation P. O. Box 778 Dover, Del. 19901	Black-and-white	9- by 9-in. contact prints	1:4,800-1:12,000	Commercial firms and USGS	Entire state	1937-19
	Delaware Geological Survey University of Delaware 101 Pennsy Hall Newark, Del. 19711	Black-and-white Color Color IR	9- by 9-in. negatives and contact prints	1:20,000-1:24,000 Predominant-- 1:20,000	Commercial firms	Entire state (1:20,000) Piedmont-Coastal Plain-Peninsula partial coverages	1954-19
	Kent County Planning & Zoning Office 56 The Green Dover, Del. 19901	Black-and-white	9- by 9- to 36- by 36-in. contact prints	1:2,400-1:19,200	Commercial firms	Kent County	1968-19
	Newcastle County Dept. of Planning Advanced Planning Div. 2701 Capitol Trail Newark, Del. 19711	Black-and-white	42- by 42-in. reproducible mylars	1:2400-1:4800	Commercial firms	Newcastle County	1946-19
	Sussex County Dept. of Finance County Courthouse Georgetown, Del. 19947	Black-and-white	9- by 9-in. contact prints	1:12,000	Commercial firms and ASCS (1968)	Sussex County	1968-19
Florida	Central & South Florida Flood Control District P. O. Box V W. Palm Beach, Fla. 33402	Black-and-white	9- by 9-in. contact prints	1:4,800-1:24,000	Commercial firms and Government agencies	Major rivers, streams, lakes, in central and southern Florida	Early 1 -1975

Table A3

Summary of Available Remote Sensing Imagery--State Agencies

Imagery						Acquisition	
	Coverage					Reproduction	
Flown by	Area	Period	Frequency	Indexing Method	Availability	In-House	Other
nd rcial firms	County-wide coverage of the state. Additional coverages along certain roadway corridors	1952-1975	As required	Photo indexes and county maps	Not generally available to other state or Federal agencies	None	--
ial firms	Full coverage of all counties in state	1972-1975	As required for tax map revisions. Generally flown during leaf-off season	Photo indexes	Available	None	Contractor will reproduce copie coverage
USGS, NASA, and rcial firms	Mobile Bay area, Alabama oil fields, and many widely scattered sites throughout state	1970-1974	As required in support of geologic investigations	Generally map indexes of various scales	Available	None	Potential users must make arra for reproduction of coverage
e photo aircraft,	Major metropolitan areas. Existing highways and proposed highway sites	1936-1975	As required	Flight lines plotted on county highway maps	Available, except NASA coverage	Yes; black-and-white only	--
e photo aircraft	All state counties	1967-1975	Every 3 or 4 yr	Flight-line indexes	Available	Yes	--
s Highway Dept. commercial firms	State parks throughout state	1969-1975	As required	Informal catalog indexes	Available	None	Arrangements can be made with cial firms for reproduction
ial firms and rnment agencies	Highways and proposed highway sites, counties (incomplete), and major urban areas	1927-1975	As requested	Map indexes	Available	None	Arrangements can be made with cial firms for reproduction
ial firms	Existing highways and proposed highway sites	Early 1950's -1975	As required	Flight-line indexes	Available	Yes (no diapositives)	--
ial firms	41% of state complete. Remaining 59% has been flown and will become available in mid-1976	1970-1975	As required	Quadrangle index map	Available	None	Contractors
ial firms	Entire state-1:12,000. Shoreline areas-1:2400	1932-1975	Every 5 yr	Mylar overlays on state base map Photo index mosaics	Available	None	Contractors
ial firms	Entire state (1:2400 in 1975) and proposed and existing highways	1960-1975	Approximately every 5 yr and as requested	Index maps (15- and 7-1/2-min quadrangles)	Available	None	Contractors
ial firms and	Entire state	1937-1975	As required	Photo indexes	Available	None	Contractors
ial firms	Entire state (1:20,000) Piedmont-Coastal Plain-Peninsula partial coverages	1954-1973	As required	Card file-geographic location	Available	None	Contractors
ial firms	Kent County	1968-1975	As required	County map index Photo indexes	Available	None	Contractors hold original negat
ial firms	Newcastle County	1946-1968	As required	Card indexes	Available	Yes; ozalid copies only	Contractors hold original negat
ial firms and (1968)	Sussex County	1968-1972	As required	Photo indexes	Available	None	Contractors hold original negat
ial firms and rnment agencies	Major rivers, streams, lakes, in central and southern Florida	Early 1950's -1975	As required	Map indexes (by quadrangles) catalogs	Available	None	Contractors hold original negat

(Continued)

Acquisition / Reproduction: Other	Intra-Agency Contact	Remarks
--	Chief Engineer, Bureau of Surveys and Plans	
ntractor will reproduce copies of coverage	Evaluation Supervisor, Mapping Section	
tential users must make arrangements for reproduction of coverage desired	Chief, Remote Sensing Div.	
--	Cartographer, Photogrammetry and Mapping Section	
--	Chief, Photogrammetry Section	
rrangements can be made with commercial firms for reproduction	Assistant Director, Planning and Development Section	
rrangements can be made with commercial firms for reproduction	Office of Chief, Geometronics	The California DOT serves as a depository for most aerial photography flown or contracted by state agencies in California. A comprehensive index is maintained for these coverages
--	Asst. Chief Engineer for Engineering	
ontractors	Director, Colorado Geological Survey	These coverages are available on a loan basis from the Colorado Geological Survey, or for purchase from the contractors. Contact the Colorado Geological Survey for names and addresses of contractors
ontractors	Chief, Natural Resources Center	
ontractors	Chief, Surveys and Mapping Section	
ontractors	Chief, Mapping Section	
ontractors	State Geologist	
ntractors hold original negatives	Planning Director	
ntractors hold original negatives	Director, Dept. of Planning	
ntractors hold original negatives	Head, Tax Mapping Section	
ntractors hold original negatives	Chief, Right-of-Way Div.	

State	Agency or Organization	Imagery					Coverage Period
		Type	Format	Range of Scales	Flown By	Area	
Florida (Cont.)	Florida Dept. of Transportation Topographic Office Hayden-Burns Bldg. Tallahassee, Fla. 32304	Black-and-white Color Black-and-white IR Color IR	9- by 9-in. contact prints, negatives, and positive transparencies	1:12,000-1:24,000	In-house photo aircraft	All state counties, existing and proposed highway sites	1958-19
	Northwest Florida Water Management Dist. 325 John Knox Road Room C-135 Tallahassee, Fla. 32303	Black-and-white	7.5-min USGS quad format	Predominantly 1:24,000	Commercial firms	Florida Panhandle	1970-19
	St. John's River Water Management District Rt. 2, Box 695 Palatka, Fla. 32077	Black-and-white Color IR	Black-and-white 7.5-min USGS quad format Color IR 9- by 9 in. contact prints	1:24,000	Commercial firms	Entire state (color IR), northeast Florida (black-and-white)	1972-19
	Suwanee River Water Management District P. O. Drawer K White Springs, Fla. 32096	Black-and-white Color IR	Black-and-white 7.5 min USGS quad format Color IR 9- by 9-in. positive transparencies	1:24,000-1:60,000	Commercial firms	North-central Florida	1972-19
	Southwest Florida Water Management District P. O. Box 457 Brooksville, Fla. 33512	Black-and-white	30- by 40-in. mosaics reproducible mylar	1:2,400 to 1:12,000	Commercial firms	Major rivers, streams, lakes, and basins of southwest Florida	1970-19
Georgia	Georgia Dept. of Transportation Office of Location 2 Capitol Square Atlanta, Ga. 30334	Black-and-white Color Color IR	9- by 9-in. negatives roll positive transparencies	1:2,400-1:24,000 Predominant--1:6,000	In-house photo aircraft	Strip photography of existing and proposed highways. Block coverage of urban areas	1953-19
Idaho	Idaho Dept. of Lands State House Boise, Idaho 83720	Black-and-white	9- by 9-in. negatives and prints	1:15,840-1:60,000	Commercial and Government organizations	Northern Idaho	1965-19
	Idaho Transportation Dept. Div. of Highways P. O. Box 7129 Boise, Idaho 83707	Black-and-white Color Color IR	9- by 9-in. negatives, contact prints, and positive transparencies	1:6,000-1:30,000	Commercial firms	Strip photography of existing and proposed highways. Block coverage of urban areas	1957-19
Illinois	Illinois Dept. of Transportation Div. of Highways Bureau of Design and Highways 3200 S. 31st St. Springfield, Ill. 62706	Black-and-white Color IR	9- by 9-in. negatives, contact prints, positive transparencies	1:3,000-1:24,000	In-house photo aircraft	Cook, St. Clair, and Madison Counties (full coverage), floodplains of major streams, and all existing and proposed highways	1955-19
Indiana	Indiana Dept. of Natural Resources Div. of Water, Rm 605 State Office Bldg. Indianapolis, Ind. 46204	Black-and-white	9- by 9-in. negatives, and contact prints	1:6000-1:7920	In-house photo aircraft	Primarily floodplains (in urban areas)	1965-19
	Indiana Dept. of Natural Resources Geological Survey 611 N. Walnut Grove Bloomington, Ind. 47401	Black-and-white	9- by 9-in. contact prints	1:20,000	USDA	Entire state	1937-19
	State Highway Commission Room 1301 100 N. Senate Indianapolis, Ind. 46204	Black-and-white	9- by 9-in. negatives and contact prints	1:7,200-1:24,000	In-house photo aircraft; also hold USDA and other Illinois state agency photography	Entire state in near future at 1:24,000. Existing and proposed highway routes at larger scales	1969-19
Iowa	Dept. of Transportation Highway Div. 826 Lincoln Way Ames, Iowa 50010	Black-and-white Color (limited)	9- by 9-in. original negatives and contact prints	1:2,400-1:90,000	Commercial firms	Strip photography of all proposed and existing highways. Block coverage of all urban areas	1958-19
	Iowa Geological Survey Remote Sensing Laboratory 123 N. Capitol St. Iowa City, Iowa 52240	Black-and-white Color Color IR Multiband (blue, green, red, IR to 0.9 μm)	9- by 9-in. negatives, contact prints, and positive transparencies (Multiband, 9- by 9-in. frame composed of four 3.5 by 3.5 images)	1:8,000-1:80,000	Various Government and commercial organizations	Des Moines River. Research projects at various areas in Iowa (mostly rivers and streams)	1971-19
	State Conservation Commission 300 4th St. Des Moines, Iowa 50319	Black-and-white	24- by 36-in. reproducible mylar sheet mosaics	1:1200-1:2400 Predominant--1:1200	Commercial firms	State parks, wildlife management areas, and state forests	1961-19

2 1

Table A3 (Continued)

Imagery					Acquisition		
	Coverage					Reproduction	
own By	Area	Period	Frequency	Indexing Method	Availability	In-House	Other
photo aircraft	All state counties, existing and proposed highway sites	1958-1975	Every 3-5 yr	Line indexes	Available	Yes	--
l firms	Florida Panhandle	1970-1975	As required	By USGS quadrangle sheets	Available	None	Contractors hold original negati
l firms	Entire state (color IR), northeast Florida (black-and-white)	1972-1975	As required	Map indexes (quadrangles)	Available	None	Contractors hold original negati
l firms	North-central Florida	1972-1973	As required	Map indexes (by quadrangles), flight-line indexes	Available	None	Contractors hold original negati
l firms	Major rivers, streams, lakes, and basins of southwest Florida	1970-1975	As required	Map index of coverages	Available	Yes; ozalid copies only	Contractors hold original negati
photo aircraft	Strip photography of existing and proposed highways. Block coverage of urban areas	1953-1975	As required	County highway maps. Photo indexes (block coverage)	Available	Yes; black-and-white and color	--
l and ent ations	Northern Idaho	1965-1975	As required--flown primarily in late summer	Photo indexes	Available	None	Arrangements can be made for repr tion by other organizations
l firms	Strip photography of existing and proposed highways. Block coverage of urban areas	1957-1975	As required--all cities every 5-6 yr	Flight-line indexes	Available	None	Arrangements can be made for repr tion by commercial firms
photo aircraft	Cook, St. Clair, and Madison Counties (full coverage), floodplains of major streams, and all existing and proposed highways	1955-1975	As required	Map index-flight lines on quadrangles. Atlas of areas mapped by quadrangle	Available	Yes; black-and-white only	--
photo aircraft	Primarily floodplains (in urban areas)	1965-1975	Annually in spring and fall	Photo index mosaics	Available	None	Arrangements can be made for repr tion by commercial firms
	Entire state	1937-1964	As required	Photo index mosaics	Available (on loan basis)	None	--
photo air- also hold USDA er Illinois gency aphy	Entire state in near future at 1:24,000. Existing and proposed highway routes at larger scales	1969-1975	As required	Photo indexes	Available	Yes; black-and-white only	--
l firms	Strip photography of all proposed and existing highways. Block coverage of all urban areas	1958-1975	As required	Photo indexes	Available	Yes; black-and-white only	--
overnment and ial ations	Des Moines River. Research projects at various areas in Iowa (mostly rivers and streams)	1971-1975	As required in support of research projects	No formal indexes (see Information Circular No. 8 dtd Sep 74, Iowa Geological Survey)	Available	None	Can arrange with commercial firm cost + 1.5% overhead
l firms	State parks, wildlife management areas, and state forests	1961-1975	As required	Photo indexes	Available--will loan mylar sheets for reproduction	None	Contractors hold original negati

(Continued)

)

3

equisition roduction Other	Intra-Agency Contact	Remarks
--	Topographic Engineer	
tractors hold original negatives	Director	
tractors hold original negatives	Director	
tractors hold original negatives	Director	
tractors hold original negatives	Supervisor, Aerial Mapping and Flood Delineation Section	
--	State Highway Location Engineer	Additional information concerning availability of aerial photography of the coastal zone of Georgia is contained in Technical Report Number 73-4, published by the Georgia Marine Science Center, Skidaway Island, Ga.
rangements can be made for reproduction by other organizations	Supervisor, Technical Services Section	
rangements can be made for reproduction by commercial firms	Environmental and Corridor Planning Supervisor	
--	Secretary, Dept. of Transportation, 2300 Senator Dirksen Parkway, Springfield, Ill., 62764	
rangements can be made for reproduction by commercial firms	Chief, Div. of Water	
--	Asst. State Geologist, Survey Dept.	
--	Manager, Photogrammetry and Reproduction Div.	
--	Design Engineer, Design Dept.	
n arrange with commercial firm for cost + 1.5% overhead	Chief, Remote Sensing Laboratory	The Remote Sensing Laboratory has prepared a "Guide to Aerial Imagery of Iowa," Public Information Circular No. 8, Sep 1974. This publication lists all known aerial photographic coverage available for Iowa
tractors hold original negatives	Director, State Conservation Commission	

State	Agency or Organization	Imagery					Cover
		Type	Format	Range of Scales	Flown By	Area	Per
Kansas	Kansas Dept. of Transportation State Office Bldg. Topeka, Kans. 66612	Black-and-white	9- by 9-in. original negatives and contact prints	1:1,200-1:36,000 Predominant--1:24,000	Commercial firms to 1961; in-house photo aircraft since 1961	County-wide coverage for about 40% of state. All existing and proposed highways	1958-1
Kentucky	Kentucky Dept. of Commerce 133 Holmes St. Frankfort, Ky. 40601	Black-and-white	9- by 9-in. contact prints. Some original negatives	1:24,000 (predominant) to 1:52,800	USGS contracted. 50/50 coop. program	All of state (except Fort Knox)	1948-1
	Kentucky Dept. of Transportation State Office Bldg. High St. Frankfort, Ky. 40601	Black-and-white Color (limited)	9- by 9-in. original negatives and contact prints	1:3,000 to 1:24,000	*In-house photo aircraft*	*West of Lexington--all of state (by districts). Will begin flying eastern areas in near future. Random coverage of proposed and existing highway projects*	1970-1
Louisiana	Louisiana Dept. of Public Works Box 44155 Capitol St. Baton Rouge, La. 70804	Black-and-white	18- by 30-in. mosaics and 9- by 9-in. contact prints	1:20,000	Commercial firms	Red River--Arkansas border to Atchafalaya River	1944-1
	Louisiana Dept. of Highways P. O. Box 44245 Capitol St. Baton Rouge, La. 70804	Black-and-white	9- by 9-in. original negatives and contact prints	1:2,400-1:14,400	In-house photo aircraft	Along highway right-of-way prior to, during, and after construction	1962-1
Maine	Maine Dept. of Conservation Bureau of Public Lands State Office Bldg. Augusta, Maine 04330	Black-and-white	9- by 9-in. contact prints	Predominantly 1:15,840	Commercial firms, and SCS	16th-section lands	1974-1
	Maine Dept. of Transportation Div. of Bureau of Highways Augusta, Maine 04330	Black-and-white Color Color IR	9- by 9-in. mylar-base contact prints, and positive transparencies	1:3,000-1:12,000 Standard--1:12,000	Commercial firms	Highway corridors and urban areas (1:6000)	Mid-19 1975
	James Sewell Co. Box 433 Oldtown, Maine 04468	Black-and-white Color Color IR	9- by 9-in. original negatives, and positive transparencies	1:3,600-1:30,000 Predominant--1:15,840	In-house photo aircraft	Numerous areas of Maine. Most state agency requirements flown by this firm	1964-1
Maryland	Maryland Dept. of Natural Resources Water Resources Admin. Tawes State Office Bldg. Annapolis, Md. 21401	Color Black-and-white IR Color IR	9- by 9-in. original negatives and contact prints Color IR positive transparencies	1:12,000	Commercial firms	Tidal wetlands of Maryland	1971-1
	Maryland Dept. of State Planning 301 W. Preston St. Baltimore, Md. 21201	Black-and-white Color Color IR	9- by 9-in. and sheet mosaics, contact prints, roll film, positive transparencies	1:60,000-1:130,000	Commercial firms, and NASA	Major transportation corridors and entire state (near future)	No info
	Maryland Dept. of Transportation 300 W. Preston St. Baltimore, Md. 21203	Black-and-white	9- by 9-in. contact prints	1:3,000-1:24,000	Commercial firms	Baltimore County (1972) and existing and proposed highways	1950-1
Massachusetts	Massachusetts Dept. of Public Works 100 Nashua St. Boston, Mass. 02114	Black-and-white	9- by 9-in. contact prints	Predominantly 1:7200	Commercial firms	Statewide	Mid-19 1975
Michigan	Michigan Dept. of Highways and Transportation State Highway Bldg. P. O. Drawer K Lansing, Mich. 48904	Black-and-white Color IR (limited and poor quality)	9- by 9-in. black-and-white original negatives 9- by 9-in. color IR positive transparencies	Predominantly 1:3000	Commercial firms	Black-and-white: existing highways and proposed highway sites Color IR: Upper Peninsula, and northern Michigan	1950-1
	Michigan Dept. of Natural Resources Div. of Forestry Lansing, Mich. 48926	Black-and-white	9- by 9-in. contact prints	1:15,840	Commercial firms	Blocks of state-owned land and northeast portion of Lower Peninsula	1968
	Michigan Dept. of Natural Resources Div. of Water Resources Lansing, Mich. 48926	Color	70-mm and 9- by 9-in. positive transparencies	1:10,000	Environmental Research Institute of Michigan (ERIM)	Large part of state including Lakes Michigan, Huron, and Superior	April
	Environmental Research Institute of Michigan Resources & Technology Div. Ann Arbor, Mich. 48106	Black-and-white Color Color IR Multispectral Radar	9.5- by 9.5-in. and 70-mm original negatives 9.5- by 9.5-in. positive transparencies 70-mm positive transparencies Magnetic tape Positive transparencies	1:2,000-1:250,000	In-house photo aircraft, and NASA	Great Lakes shorelines (Mich.), Detroit River, and other miscellaneous sites	1966-1

Table A3 (Continued)

Imagery					Acquisition		
	Coverage					Reproduction	
wn By	Area	Period	Frequency	Indexing Method	Availability	In-House	Other
firms to -house photo since 1961	County-wide coverage for about 40% of state. All existing and proposed highways	1958-1975	As required	Flight-line maps by county	Available	Yes; black-and-white only (at cost + 100%)	--
acted. op. program	All of state (except Fort Knox)	1948-1973	Continuing coverage	Flight lines on 7-1/2- and 15-min quadrangles	Available (on loan basis)	None	USGS holds most original negatives
photo aircraft	West of Lexington--all of state (by districts). Will begin flying eastern areas in near future. Random coverage of proposed and existing highway projects	1970-1975	As required	Flight lines on district and county maps	Available	Yes	--
l firms	Red River--Arkansas border to Atchafalaya River	1944-1975	Annually	Informal catalog	Available	None	Contractors hold original negatives
photo aircraft	Along highway right-of-way prior to, during, and after construction	1962-1975	As required	Photo indexes. Flight-line maps (parish maps) cross-indexed	Available	Yes	--
l firms, and	16th-section lands	1974-1975	About every 10 yr	Photo indexes	Available through contractor	None	James Sewell Co. holds original negatives
l firms	Highway corridors and urban areas (1:6000)	Mid-1950's-1975	As required	Photo indexes	Available through contractor upon written release from DOT	None	James Sewell Co. holds original negatives
photo aircraft	Numerous areas of Maine. Most state agency requirements flown by this firm	1964-1975	As required--mostly in spring or fall	By project--flight lines plotted on USGS quadrangles	Available	Yes; black-and-white only	Color reproduction done by other fi
l firms	Tidal wetlands of Maryland	1971-1972	As required	Photo mosaics and special maps	Available	None	Will help arrange for reproduction
l firms, and	Major transportation corridors and entire state (near future)	No information	Future planning for 2- or 3-yr intervals	No information	Available	None	Will help arrange for reproduction
l firms	Baltimore County (1972) and existing and proposed highways	1950-1975	As required	Photo indexes	Available	None	Contractors hold original negatives
l firms	Statewide	Mid-1950's-1975	About every 4 yr	Photo indexes	Available through contractor	None	Contractors hold original negatives
l firms	Black-and-white: existing highways and proposed highway sites Color IR: Upper Peninsula, and northern Michigan	1950-1975	As required	Photo indexes and flight-line maps	Available	Yes	--
l firms	Blocks of state-owned land and northeast portion of Lower Peninsula	1968	As required	Photo indexes	Available through contractor	None	Contractors hold original negatives
tal Research e of Michigan	Large part of state including Lakes Michigan, Huron, and Superior	April 1974	As required	None	Available through ERIM	None	ERIM
photo , and NASA	Great Lakes shorelines (Mich.), Detroit River, and other miscellaneous sites	1966-1975	As required in support of research projects	Catalog of imagery	Available (at cost). NASA imagery available through EROS Data Center	Yes	EROS Data Center (NASA coverage)

(Continued)

Acquisition: Reproduction: Other	Intra-Agency Contact	Remarks
--	Secretary, Dept. of Transportation	
USGS holds most original negatives	Map Sales	
--	Chief, Div. of Photogrammetry	
Contractors hold original negatives	Chief Engineer	
--	Director, Dept. of Highways	
James Sewell Co. holds original negatives	James Sewell Co., Oldtown, Maine	
James Sewell Co. holds original negatives	James Sewell Co., Oldtown, Maine	
Color reproduction done by other firms	--	
Will help arrange for reproduction	Wetlands Permit Section	
Will help arrange for reproduction	Comprehensive State Planning Div.	NASA coverages may be available through EROS Data Center
Contractors hold original negatives	Bureau of Project Planning Box 717 Room 404 Baltimore, Md. 21203	
Contractors hold original negatives	Chief, Photogrammetrics	
--	Director, Dept. of Highways and Transportation	
Contractors hold original negatives	Abrams Aerial Surveys, In., Lansing, Mich.	
ERIM	Water Development Section, Div. of Water Resources, DNR	
EROS Data Center (NASA coverage)	Director, Resources and Technology Div.	

State	Agency or Organization	Imagery					
		Type	Format	Range of Scales	Flown By	Area	Cover Per
Michigan (Cont.)	Southeast Michigan Council of Governments (SEMCOG) 1249 Washington Blvd. Detroit, Mich. 48226	Black-and-white	9- by 9-in. contact prints	1:24,000-1:36,000	Commercial firms	Most of Southeast Michigan	1966-1
Minnesota	Department of Highways Office of Surveying and Mapping Rm 711 Minnesota Highway Bldg. John Ireland Blvd. St. Paul, Minn. 55155	Black-and-white Color (limited) Color IR (limited)	9- by 9-in. contact prints, positive transparencies, and some original negatives	1:3,000-1:24,000	Commercial firms	Entire state (1969 and 1972), and strip photography of existing and proposed highways	1961-1
	Institute of Agriculture Remote Sensing Laboratory University of Minnesota St. Paul, Minn. 55108	Black-and-white Color Color IR Multispectral	9- by 9-in. contact prints, 70-mm positive transparencies	1:2,000-1:80,000	Government agencies, commercial firms, and in-house photo aircraft	Itasca County, and scattered sites throughout state	1960-1
	State Planning Agency Capitol Square Bldg. 550 Cedar St. St. Paul, Minn. 55101	Black-and-white	9- by 9-in. contact prints	1:90,000	Commercial firms	Statewide	1968-1
Mississippi	State Highway Dept. Transportation and Planning Section P. O. Box 1850 Jackson, Miss. 39205	Black-and-white	9- by 9-in. contact prints 17- by 17-in. enlargements	1:20,000-1:40,000	USDA and commercial firms	Statewide	1956-1
	State Highway Dept. Roadway Design Div. P. O. Box 1850 Jackson, Miss. 39205	Black-and-white Color (near future)	9- by 9-in. contact prints	1:2,400-1:24,000	Commercial firms	All state and Federal proposed and existing highways	1958-1
Missouri	Missouri Dept. of Agronomy 214 Waters Hall University of Missouri Columbia, Mo. 65201	--	--	--	--	--	--
	Missouri Dept. of Natural Resources P. O. Box 250 Rolla, Mo. 65401	Color Color IR Thermal IR (Bands: 8-13 μm)	70-mm positive transparencies	1:17,000-1:62,500	Commercial firms and in-house photo aircraft	Engineering construction projects in various counties	1970-1
	State Highway Commission Div. of Surveys and Plans State Highway Bldg. Jefferson City, Mo. 65101	Black-and-white	9- by 9-in. original negatives	1:3,000-1:36,000	In-house photo aircraft	Urban centers and existing and proposed highway sites	1959-1
Montana	Montana Highway Dept. 6th Ave. & Roberts Helena, Mont. 59601	Black-and-white	9- by 9-in. original negatives and contact prints	1:480-1:7200	In-house photo aircraft	Existing roadways and corridors	Late 1 1975
Nebraska	Nebraska Dept. of Natural Resources State Capitol Basement Room 17A Lincoln, Nebr. 68508	Black-and-white	9- by 9-in. original negatives and contact prints	1:6,000-1:12,000 Predominant-- 1:12,000	Commercial firms	Floodplains, dam sites, and watersheds	1965-1
	Nebraska Dept. of Roads P. O. Box 94759 Highways Bldg. Lincoln, Nebr. 68509	Black-and-white	9- by 9-in. original negatives and contact prints	1:6,000-1:24,000	In-house photo aircraft	Strip coverage for existing and proposed highways. Block coverage of urban areas	1955-1
	Conservation and Survey Div. Remote Sensing Center University of Nebraska Nebraska Hall Lincoln, Nebr. 68508	Black-and-white Color Color IR	5- by 18-in roll film, positive transparencies	1:40,000	Nebraska Air National Guard	Platte River; Lancaster and Cass Counties, 8 counties in western Nebraska, and other sites throughout the state	1970-1
Nevada	Nevada Bureau of Mines University of Nevada Reno, Nev. 89507	Black-and-white Black-and-white IR Color Color IR	9- by 9-in. contact prints, roll positive negative transparencies	1:32,000-1:120,000	AMS, USGS, and NASA	Entire state (AMS, black-and-white, 1:32,000), other coverages randomly throughout state	1954-1
	Nevada Dept. of Conservation and Natural Resources Div. of Water Resources Carson City, Nev. 89710	Black-and-white Color	9- by 9-in. contact prints	1:7,200-1:24,000	USGS, Air National Guard, and commercial firms	Las Vegas and Reno areas and numerous ground-water basins	1970-1
	Nevada Dept. of Highways 1263 S. Stewart Carson City, Nev. 89712	Black-and-white Color Color IR	7- by 7-in. (prior to 1971) and 9- by 9-in. original negatives, glass diapositives, and contact prints	1:3,000-1:30,000	In-house photo aircraft	Urban areas and existing and proposed highway sites	1959-1

Table A3 (Continued)

agery	Coverage				Acquisition			
	Area	Period	Frequency	Indexing Method	Availability	Reproduction: In-House	Reproduction: Other	
	Most of Southeast Michigan	1966-1975	Approximately every 5 yr	Photo indexes	Available	None	Contractors hold original negatives	Inf S
	Entire state (1969 and 1972), and strip photography of existing and proposed highways	1961-1975	As required--primarily during leaf-off periods	Photo indexes	Available	Yes	Contractors hold the negatives for the 1969 and 1972 statewide coverages	Dir W
	Itasca County, and scattered sites throughout state	1960-1975	As required	Catalog index	Available	Yes; 70-mm only	--	Chi L
	Statewide	1968-1969	As required	Photo indexes	Available (on loan basis)	None	Contractors hold original negatives	Chi R
	Statewide	1956-1975	As required	Photo and map indexes	Available	Yes; black-and-white only	Contractors and USDA hold most original negatives	Dir
	All state and Federal proposed and existing highways	1958-1975	As required	Photo indexes	Available	Yes; black-and-white only	--	Dir
	--	--	--	--	--	--	--	
	Engineering construction projects in various counties	1970-1975	As required	Flight lines on quadrangles and card index	Available	None	Will help arrange for reproduction	Div T
aft	Urban centers and existing and proposed highway sites	1959-1975	As required	Flight lines on county highway maps	Available	Yes	--	Div S
aft	Existing roadways and corridors	Late 1950's-1975	As required	Photo indexes catalogs card index	Available	Yes	--	Chi
	Floodplains, dam sites, and watersheds	1965-1975	As required	Photo indexes	Available	None	Will help arrange for reproduction	Pho
aft	Strip coverage for existing and proposed highways. Block coverage of urban areas	1955-1975	As required	Flight lines on county highway maps	Available	Yes	--	Hea R
l	Platte River; Lancaster and Cass Counties, 8 counties in western Nebraska, and other sites throughout the state	1970-1975	As required	Indexed on maps of various types	Available	Yes; black-and-white only	Will help arrange for color reproduction by commercial firms	Chi C
	Entire state (AMS, black-and-white, 1:32,000), other coverages randomly throughout state	1954-1975	As required	Photo indexes, 1:1,000,000 map indexes	Available	Yes; black-and-white only	NASA and USGS--can probably be obtained at EROS Data Center	Dir c
ial	Las Vegas and Reno areas and numerous groundwater basins	1970-1975	As required	Grouped by basin. No formal index	Available	None	Will help arrange for reproduction by commercial firms	Off W
aft	Urban areas and existing and proposed highway sites	1959-1975	As required	Flight lines on county maps Photo indexes	Available	Yes; black-and-white only (cost of material plus labor)	Will help arrange for reproduction of color coverages by commercial firms	Chi I

(Continued)

quisition nction Other	Intra-Agency Contact	Remarks
ctors hold original negatives	Information Services, SEMCOG	
ctors hold the negatives for the and 1972 statewide coverages	Director, Office of Surveying and Mapping	
--	Chief, Remote Sensing Laboratory	
ctors hold original negatives	Chief, Mapping Section Room 101	
ctors and USDA hold most original tives	Director of Highways	
--	Director of Highways	
--	--	This department has compiled an "Index of Aerial Photography and Space Images of Missouri," which includes all known photography flown before 1 May 1975 within the state. Only photography available for purchase or loan is included in this index
elp arrange for reproduction	Div. of Research and Technical Information	
--	Division Engineer, Div. of Surveys and Plans	
--	Chief, Photogrammetry Unit	
elp arrange for reproduction	Photogrammetry Section	
--	Head, Reproduction Rm 110	
elp arrange for color reproduction ommercial firms	Chief, Remote Sensing Center	
nd USGS--can probably be obtained ROS Data Center	Director Nevada Bureau of Mines	
elp arrange for reproduction by ercial firms	Office Engineer, Div. of Water Resources	
elp arrange for reproduction of r coverages by commercial firms	Chief Planning Survey Engineer	

State	Agency or Organization	Imagery					
		Type	Format	Range of Scales	Flown by	Coverage Area	Coverage Per
Nevada (Cont.)	State Land Use Planning Agency 201 South Fall St. Carson City, Nev. 89701	--	--	--	--	--	--
	152 Tactical Reconnaissance Group/IN May ANG Base Reno, Nev. 89502	Black-and-white	4.5- by 4.5-in. and 9- by 9-in. original negatives, and contact prints	1:25,000-1:70,000	Various in-house photo reconnaissance aircraft	Humbolt River, Carson River, and lakes throughout Nevada	1962-1
New Hampshire	Central New Hampshire Regional Planning Commission 10 Grand View Road Bow, N. H. 03301	Black-and-white	9- by 9-in. contact prints	1:12,000	Commercial firms	Franklin to Massachusetts state line, west to Bradford, N.H., east to Northwood	Spring
	New Hampshire Dept. of Public Works and Highways 85 Loudon Road Concord, N. H. 03301	Black-and-white	9- by 90-in. contact prints. Contractor has original negatives	1:600-1:4800	Commercial firms	Urban areas and existing and proposed highway sites	1956-1
	New Hampshire Dept. of Resources and Economic Development 5 Langdon St. Concord, N. H. 03301	Black-and-white Color	9- by 9-in. contact prints 2- by 2-ft mosaics (10 sheets-1:90,000, entire state)	1:18,000-1:90,000	Commercial firms, USDA, and U.S. Air Force	All of state (southern portion of state--color, 1972-73)	1962-1
New Jersey	New Jersey Dept. of Environmental Protection Bureau of Geology and Topography P. O. Box 2809 1474 Prospect St. Trenton, N. J. 08625	Black-and-white	Reproducible mylar sheets--about same size as 7-1/2 min quadrangle	1:24,000	Commercial firms	All of state	1972
	New Jersey Dept. of Environmental Protection Office of Environmental Analysis Labor and Industry Bldg. Room 710 John Fitch Way Trenton, N. J. 08625	Black-and-white Color Color IR	9- by 9-in. contact prints and positive transparencies Photo maps from color IR (1:2400)	1:12,000	Commercial firms	Coastal wetlands of New Jersey (approximately 280,000 acres)	1971-1
	Dept. of Transportation 1035 Parkway Ave. Trenton, N. J. 08625	Black-and-white	9- by 9-in. contact prints and original negatives	1:360-1:4800	Commercial firms and USGS	State and Federal roads, Delaware Valley, and full coverage of 13 counties	1969-1
New Mexico	State Engineer's Office Bataan Memorial Bldg. Santa Fe, N. Mex. 87501	Black-and-white	9- by 9-in. contact prints and original negatives	1:6,000-1:24,000 Predominant--1:18,000	Commercial firms	Irrigated areas and basins throughout state	1950-1
	State Highway Commission P. O. Box 1149 Santa Fe, N. Mex. 87501	Black-and-white Color (limited)	9- by 9-in. contact prints and original negatives	1:3000-1:6000 Predominant--1:6000	In-house photo aircraft	Small communities and existing and proposed highway sites	1958-1
New York	Dept. of Transportation State Campus 1220 Washington Ave. Albany, N. Y. 12226	Black-and-white Color Color IR	9- by 9-in. contact prints and original negatives	1:3,000-1:12,000 Predominant--1:12,000	In-house photo aircraft	Urban areas and existing and proposed highway sites	1950's
North Carolina	Dept. of Transportation State Highway Bldg. P. O. Box 25201 Raleigh, N. C. 27611	Black-and-white	9- by 9-in. original negatives and contact prints	1:2,400-1:48,000 Predominant--1:6000	In-house photo aircraft	Strip photography along proposed and existing highways, block coverage of urban areas, full coverage of Wake County	1959-1
North Dakota	State Highway Dept. State Highway Bldg. Capitol Grounds Bismarck, N. Dak. 58501	Black-and-white Color (limited)	9- by 9-in. original negatives and contact prints	1:2,400-1:12,000	In-house photo aircraft	Existing and proposed highways, urban areas, large area south of Garrison Dam for coal-mining impact study	1955-1
Ohio	Dept. of Natural Resources Div. of Water Building E, Fountain Sq. Columbus, Ohio 43224	Black-and-white Color IR (limited)	9- by 9-in. original negatives, positive transparencies, and contact prints	1:24,000-1:80,000 Predominant--1:24,000	In-house photo aircraft	Strip mine areas; wildlife management areas; full coverage of Stark, Treble, Miami, Darke, Green, and Montgomery counties; coverage along the Olentagny, Sandusky, Grand, Maumee, and Cayahoga Rivers; in near future coverage of counties bordering Lake Erie	1973-1

Table A3 (Continued)

Imagery					Acquisition		
	Coverage					Reproduction	
by	Area	Period	Frequency	Indexing Method	Availability	In-House	Other
	--	--	--	--	--	--	--
use photo nce	Humbolt River, Carson River, and lakes throughout Nevada	1962-1975	As required	Informal indexes	Available	Yes	--
rms	Franklin to Massachusetts state line, west to Bradford, N.H., east to Northwood	Spring 1975	As required	Reproducible mylar photo indexes	Available	None	Abrams Aerial Surveys holds original negatives
rms	Urban areas and existing and proposed highway sites	1956-1975	As required	Photo indexes	Available	None--can furnish mylar or cronaflex® reproducible prints	Aero Service Corp., holds most original negatives
rms, USDA, ir Force	All of state (southern portion of state--color, 1972-73)	1962-1975	As required	Photo and map indexes	Available	None	Will help arrange for reproduction
rms	All of state	1972	As required	Same as USGS quadrangle index of New Jersey	Available	Yes	--
rms	Coastal wetlands of New Jersey (approximately 280,000 acres)	1971-1972	As required	Photo indexes	Not available--coverages can be seen at office	None	Mark Hurd Aerial Surveys, Inc., holds most original negatives
rms and	State and Federal roads, Delaware Valley, and full coverage of 13 counties	1969-1972	As required	By road projects and key maps	Available	None	Will help arrange for reproduction
rms	Irrigated areas and basins throughout state	1950-1975	As required	Photo and map indexes	Available	Yes; limited to small quanities	--
o aircraft	Small communities and existing and proposed highway sites	1958-1975	As required	Card index No formal indexes	Available	Yes; positives only	--
o aircraft	Urban areas and existing and proposed highway sites	1950's-1975	As required	Informal index by mapping projects	Available	Yes; black-and-white only	Will help arrange for reproduction of color coverages
o aircraft	Strip photography along proposed and existing highways, block coverage of urban areas, full coverage of Wake County	1959-1975	As required	Photo index mosaics	Available	Yes	--
o aircraft	Existing and proposed highways, urban areas, large area south of Garrison Dam for coal-mining impact study	1955-1975	As required	County highway maps	Available	Yes; black-and-white only	Will help arrange for color reproducti
o aircraft	Strip mine areas; wildlife management areas; full coverage of Stark, Treble, Miami, Darke, Green, and Montgomery counties; coverage along the Olentagny, Sandusky, Grand, Maumee, and Cayahoga Rivers; in near future coverage of counties bordering Lake Erie	1973-1975	As required	Computer listing by projects and counties	Available	Contracted services are available	--

(Continued)

quisition duction Other	Intra-Agency Contact	Remarks
--	--	This agency has compiled a "Nevada Mapping and Aerial Photography Index" dated June 1975. The index describes aerial photography flown primarily by Federal agencies within the State of Nevada
--	CO, 152 TRG/IN	
s Aerial Surveys holds original atives	Director, Central New Hampshire Regional Planning Commission	
Service Corp., holds most original atives	Commissioner, Dept. of Public Works and Highways	
help arrange for reproduction	Chief, Graphic Arts Section	
--	Chief, Topographic Section	
Hurd Aerial Surveys, Inc., holds t original negatives	Office of Environmental Analysis	
help arrange for reproduction	Head Drafting Technician, Bureau of Data Resources, Room 3300	
--	State Engineer's Office	
--	Asst. Section Head, Location & Photogrammetry Section, Room 137-A	
help arrange for reproduction of or coverages	Head, Map Information Unit, Bldg. 4, Room 105	The map information unit has published a comprehensive "Inventory of Aerial Photography and Other Remotely Sensed Imagery of New York State," which is available on request. This publication lists all known photography available as of mid-1975. The information is presented on a county-by-county basis and includes coverages planned for the remainder of 1975 and into 1976
--	Head, Photogrammetry Unit	
help arrange for color reproduction	Chief, Photogrammetry and Surveying Div.	
--	Remote Sensing Manager	

State	Agency or Organization	Imagery				
		Type	Format	Range of Scales	Flown By	Area
Ohio (Cont.)	Dept. of Transportation 450 E. Town St. Columbus, Ohio 43215	Black-and-white	9- by 9-in. original negatives and contact prints	1:2,400-1:80,000	In-house photo aircraft	Proposed and existing highways, Lake Erie shoreline, full coverage of some counties, urban areas
Oklahoma	Dept. of Highways Jim Thorpe Bldg. Oklahoma City, Okla. 73105	Black-and-white	9- by 9-in. original negatives and contact prints	1:3,000-1:24,000	Commercial firms	Entire state (at 1:19,200), proposed and existing highways
	Dept. of Librarys 200 N. 18th St. Oklahoma City, Okla. 73105	Black-and-white	9- by 9-in. contact prints	1:20,000	Commercial firm (under contract to USDA)	Entire state
Oregon	State Forestry Dept. 2600 State St. Salem, Oreg. 97310	Black-and-white	9- by 9-in. contact prints	1:64,000	Commercial firms	State, Federal, and private timber lands throughout state. Photography is township-centered
	Dept. of Transportation State Highway Bldg. Salem, Oreg. 97310	Black-and-white Color Color IR	9- by 9-in. original negatives, contact prints, and positive transparencies	1:3,000-1:12,000	Commercial firms	Proposed and existing highways, scenic rivers, Pacific shoreline in Oregon, and full coverage of some counties
Pennsylvania	Dept. of Transportation Transportation & Safety Bldg. Commonwealth & Forster Sts. Harrisburg, Pa. 17123	Black-and-white Black-and-white IR Color Color IR	9- by 9-in. original negatives, contact prints, and positive transparencies	1:3,000-1:24,000	In-house photo aircraft	Strip photography along proposed and existing highways
Rhode Island	Dept. of Transportation State Office Bldg. Providence, R. I. 02903	Black-and-white	9- by 9-in. contact prints and original negatives (held by contractor)	1:1,200-1:12,000	Commercial firms	Entire state
South Carolina	Land Resources Commission Dept. of Mining and Reclamation P.O. Box 11708 Columbia, S.C. 29211	Black-and-white	9- by 9-in. contact prints and original negatives (held by contractors)	1:12,000	Commercial firms	Open-pit mining areas
	Water Resources Commission Land and Water Resources Div. 3830 Forest Drive P. O. Box 4515 Columbia, S. C. 29240	Color Color IR	9- by 9-in. positive transparencies	1:12,000-1:24,000	Commercial firms and USGS	Charleston, Charleston Harbor, lower Cooper River, and all of Wanda River; Santee River (Santee-Cooper Dam to Atlantic); coastal area from Winyah Bay to Bull Bay
	Wildlife and Marine Resources Dept. South Carolina Resources Center P. O. Box 12559 Charleston, S. C. 29412	Color Color IR	9- by 9-in. contact prints and positive transparencies	1:6,000-1:12,000	Clemson University	Coastal zone of South Carolina
South Dakota	South Dakota State University Remote Sensing Institute Brookings, S. Dak. 57006	Black-and-white Black-and-white IR Color Color IR Thermal IR Multispectral	70-mm, 9- by 9-in. original negatives, positive transparencies, and contact prints	1:3,000-1:95,000	In-house photo aircraft and NASA	Numerous and varied sites throughout the state in support of research projects
	State Highway Dept. State Highway Bldg. Pierre, S. Dak. 57501	Black-and-white Color	9- by 9-in. contact prints and original negatives	1:3,000-1:24,000 Predominant-1:24,000	Commercial firms	Strip photography along proposed and existing highways
	State Planning Bureau State Capitol Pierre, S. Dak. 57501	--	--	--	--	--
Tennessee	Dept. of Transportation 4113 Bldg. Vultee Blvd. Nashville, Tenn. 37217	Black-and-white	9- by 9-in. original negatives and contact prints	1:2,400-1:24,000	In-house photo aircraft and commercial firms	Along proposed and existing highways; full coverage of Shelby, Davison, Hamilton, and Knox Counties
Texas	Dept. of Highways and Public Transportation 38 & Jackson Sts. Austin, Tex. 78731	Black-and-white	9- by 9-in. original negatives and contact prints	1:2,400-1:24,000	In-house photo aircraft	Along proposed and existing highways; area coverage of large metropolitan areas-Houston, Dallas, Ft. Worth, etc.

2 1

Table A3 (Continued)

Imagery					Acquisition		
	Coverage					Reproduction	
by	Area	Period	Frequency	Indexing Method	Availability	In-House	Other
o aircraft	Proposed and existing highways, Lake Erie shoreline, full coverage of some counties, urban areas	1946-1975	As required	Computer listing, also indexed on county highway maps and photo index sheets	Available	Yes	--
rms	Entire state (at 1:19,200), proposed and existing highways	1955-1975	As required	County highway maps and photo index sheets	Available	Yes	--
rm (under USDA)	Entire state	1939-1946	--	Photo index mosaics	Available	No	Copies of prints can be obtained by a rangement with Dept. of Librarys fo reproduction by local commercial fi
rms	State, Federal, and private timber lands throughout state. Photography is township-centered	1968-1975	About every 5 yr	Flight-line indexes	Available	None	Orders for photography handled by the Department, but reproduction done b the contractors holding the origina negatives
rms	Proposed and existing highways, scenic rivers, Pacific shoreline in Oregon, and full coverage of some counties	1955-1975	As required	Flight-line indexes	Available	Yes; black-and-white only	--
o aircraft	Strip photography along proposed and existing highways	1960-1975	As required	Photo index mosaics	Available	Yes; black-and-white only	--
rms	Entire state	1970-1975	As required	Photo and map indexes	Available	None	Send requests to: Aerial Data Reduct Associates, c/o Village Green Assoc ates, Inc., 11 North Road, Pease Da R. I. 02883
rms	Open-pit mining areas	1974-1975	As required	Flight-line indexes	Available	None	Contact prints available on loan from the Department. Reproductions from original negatives can be pur-chased from the contractors
rms and	Charleston, Charleston Harbor, lower Cooper River, and all of Wanda River; Santee River (Santee-Cooper Dam to Atlantic); coastal area from Winyah Bay to Bull Bay	1973-1974	As required	No formal indexes	Available	None	Will help arrange for commercial repr duction of coverages
rsity	Coastal zone of South Carolina	1973-1975	As required--normally during low tide periods in the spring and fall	Flight-line indexes (7.5-min quadrangles)	Available	None	Will help arrange for commercial repr duction of coverages
o aircraft	Numerous and varied sites throughout the state in support of research projects	1969-1975	As required	Flight-line indexes	Available	Yes	--
rms	Strip photography along proposed and existing highways	1965-1975	As required	Photo index mosaics by county	Available	None	Reproductions of coverages available from contractors holding original negatives
	--	--	--	--	--	--	--
o aircraft ial firms	Along proposed and existing highways; full coverage of Shelby, Davison, Hamilton, and Knox Counties	1968-1975	As required	Coverage areas plotted on county highway maps	Available	Yes (in near future); black-and-white only	--
o aircraft	Along proposed and existing highways; area coverage of large metropolitan areas-Houston, Dallas, Ft. Worth, etc.	1962-1975	As required	Photo index mosaics	Available	Yes	--

(Continued)

quisition duction Other	Intra-Agency Contact	Remarks
--	Chief, Aerial Engineering Section	
--	Department Head, Survey Div.	
s of prints can be obtained by ar-gement with Dept. of Librarys for roduction by local commercial firms	Head, Archives and Records Div.	Negatives for this coverage may be held by the National Archives, Washington, D.C., since the coverage was originally flown under contract to the USDA Agricultural Adjustment Administration
s for photography handled by the partment, but reproduction done by contractors holding the original gatives	Mapping Supervisor	This Department publishes yearly flight-line indexes of all known photographic coverages within the state. Copies can be obtained from the Mapping Supervisor, State Forestry Dept.
--	Photogrammetric Engineer, Room 26	
--	Chief, Photogrammetry and Surveys Div.	
requests to: Aerial Data Reduction sociates, c/o Village Green Associ-s, Inc., 11 North Road, Pease Dale, I. 02883	Do not order from DOT	
ct prints available on loan m the Department. Reproductions m original negatives can be pur-ased from the contractors	Mr. Jack Whisnant, Geologist	
help arrange for commercial repro-tion of coverages	Director, Water Resources Commission	
help arrange for commercial repro-tion of coverages	Mr. Robert H. Dunlap, Resource Geographer	
--	Director, Remote Sensing Institute	
ductions of coverages available m contractors holding original gatives	Head, Photogrammetry and Surveys	
--	--	Does not maintain files of aerial photography; does maintain computerized listing of all known state and Federal photography flown in South Dakota
--	Director, Aerial Surveys Div.	
--	Head, Div. of Automation	

State	Agency or Organization	Imagery					
		Type	Format	Range of Scales	Flown By	Area	Coverage Period
Texas (Cont.)	General Land Office Stephan F. Austin State Office Bldg. Austin, Tex. 78701	Black-and-white Color IR	70-mm (black-and-white) 9- by 9-in. original negatives, positive transparencies, and contact prints	Predominantly 1:24,000	Commercial firms	Entire Texas coastline (black-and-white); Sabine Pass to Corpus Christi (color IR); *Corpus Christi to Port* Isabel (color IR); and all state-owned uplands	1960-19
	Texas Forest Service College Station, Tex. 77843	Black-and-white Color IR	9- by 9-in. original negatives and positive transparencies	1:4,000-1:24,000	In-house photo aircraft	Various sites throughout forested areas, primarily eastern Texas	1973-19
	Texas Parks and Wildlife Dept. Engineering Div. John H. Reagan Bldg. Austin, Tex. 78701	Black-and-white Color Color IR	9- by 9-in. original negatives (about 50% held by contractors), contact prints, and positive transparencies	1:3,000-1:12,000	Commercial firms	Approximately 78 state parks and recreational areas	1960's-1
Utah	Dept. of Natural Resources Div. of Parks and Recreation 1596 West N. Temple Salt Lake City, Utah 84116	Black-and-white	9- by 9-in. original negatives (held by contractor) and contact prints	1:12,000-1:24,000	Commercial firms	Wasatch Front area: primarily urbanized areas of Weaver, Davis, Salt Lake, and Utah counties; most state parks and recreational areas	1966-19
	Dept. of Transportation State Office Bldg. Salt Lake City, Utah 84114	Black-and-white Color (limited)	9- by 9-in. original negatives (held by contractor) and contact prints	1:6,000-1:24,000	Commercial firms	Strip photography along proposed and existing highways; area coverage of BLM and state-owned lands	1957-19
Vermont	Dept. of Highways State Administration Bldg. Montpelier, Vt. 05602	Black-and-white Color (limited)	9- by 9-in. original negatives (held by contractors) and contact prints	1:3,000-1:20,000	Commercial firms	Strip photography along proposed and existing highways; block coverage of urban areas; *and coverage of entire* state at 1:20,000 scale flown in 1974-1975	1954-19
Virginia	Dept. of Highways and Transportation 1401 E. Broad St. Richmond, Va. 23219	Black-and-white Color (limited)	9- by 9-in. original negatives and contact prints	1:12,000-1:36,000 Predominant-- 1:16,800	In-house photo aircraft	Full coverage of state	1963-19
Washington	Dept. of Highways Highway Administration Bldg. Olympia, Wash. 98501	Black-and-white Color Color IR	9- by 9-in. original negatives, positive transparencies, and contact prints	1:2,400-1:24,000	Leased photo aircraft	Strip photography along proposed and existing highways; block coverage of urban areas; and Pacific coastline and coastal zone	1950-19
	Dept. of Natural Resources Technical Services Div. Resource Inventory Section Olympia, Wash. 98504	Black-and-white Color Color IR	9- by 9-in. original negatives (held by contractors), positive transparencies, and contact prints	1:12,000-1:63,000	Commercial firms	Full coverage of state, except for Federal lands	1948-19
West Virginia	Dept. of Highways Route and Project Planning Sec. 1900 Washington St., E. Charleston, W. Va. 25305	Black-and-white	9- by 9-in. original negatives and contact prints	1:2,400-1:24,000	Commercial firms	Strip photography along proposed and existing highways. Block coverage in urban areas	1956-19
Wisconsin	Dept. of Natural Resources Bureau of Water Regulation and Zoning P. O. Box 450 Madison, Wis. 53701	--	--	--	--	--	--
	Dept. of Transportation Hill Farm State Office Bldg. Madison, Wis. 53702	Black-and-white	9- by 9-in. original negatives and contact prints	1:3,000-1:72,000	In-house photo aircraft and commercial firms	Strip photography along proposed and existing highways; block coverage in urban areas; and full coverage of the state flown in 1966-67 at a scale of 1:72,000	1961-19
	State Cartographer's Office 144 Science Hall University of Wisconsin Madison, Wis. 53706	--	--	--	--	--	--
Wyoming	Wyoming Highway Dept. Box 1708 Cheyenne, Wyo. 82001	Black-and-white Color (limited)	9- by 9-in. original negatives and contact prints	1:3,000-1:12,000	Commercial firms prior to 1968; in-house photo aircraft since 1968	Strip photography along proposed and existing highways. Block coverage or urban areas	1958-19

2 1

Table A3 (Concluded)

Imagery						Acquisition	
	Coverage					Reproduction	
	Area	Period	Frequency	Indexing Method	Availability	In-House	Other
	Entire Texas coastline (black-and-white); Sabine Pass to Corpus Christi (color IR); Corpus Christi to Port Isabel (color IR); and all state-owned uplands	1960-1975	As required	Photo index mosaics and map indexes	Available	Yes; black-and-white only	Contractors can furnish copies of color coverages
ircraft	Various sites throughout forested areas, primarily eastern Texas	1973-1975	As required	No formal indexes maintained	Available	None	Will help in arranging for reproduction by commercial firms
	Approximately 78 state parks and recreational areas	1960's-1975	As required	Reproducible mylar photo index sheets	Available	None	Will help in arranging for reproduction by contractors
	Wasatch Front area: primarily urbanized areas of Weaver, Davis, Salt Lake, and Utah counties; most state parks and recreational areas	1966-1975	As required	Flight-line indexes on USGS quadrangles (at contractor's office)	Available	None	Will help in arranging for reproduction by contractor, or may contact the contractor directly: Olympus Aerial Surveys, Inc., 50 West 2950 South, Salt Lake City, Utah
	Strip photography along proposed and existing highways; area coverage of BLM and state-owned lands	1957-1975	As required	Flight-line indexes on county highway maps	Available	None	Will help in arranging for reproduction by contractors
	Strip photography along proposed and existing highways; block coverage of urban areas; and coverage of entire state at 1:20,000 scale flown in 1974-1975	1954-1975	As required	Catalog and photo index mosaics	Available	None	Will help in arranging for reproduction of desired coverages from negatives held by contractors.
ircraft	Full coverage of state	1963-1975	As required--urban areas every 4 or 5 yr	10- by 12-in. photo index mosaics	Available	Yes	--
craft	Strip photography along proposed and existing highways; block coverage of urban areas; and Pacific coastline and coastal zone	1950-1975	Highways about every 7 yr, interstate system every 2 or 3 yr, other areas as required	Computer base indexes	Available	Yes	--
	Full coverage of state, except for Federal lands	1948-1975	About every 2 yr	Map indexes	Available	Yes; but very limited	DNR prefers that contractors holding the negatives do reproduction of desired coverages. DNR will assist the requester in arranging for reproduction
	Strip photography along proposed and existing highways. Block coverage in urban areas	1956-1975	As required	Photo index mosaics	Available	None	Will help in arranging for reproduction
	--	--	--	--	--	--	--
ircraft firms	Strip photography along proposed and existing highways; block coverage in urban areas; and full coverage of the state flown in 1966-67 at a scale of 1:72,000	1961-1975	As required	Photo index mosaics and catalog indexes	Available	Yes	--
	--	--	--	--	--	--	--
prior se since	Strip photography along proposed and existing highways. Block coverage or urban areas	1958-1975	As required	Photo index mosaics and flight-line indexes	Available	Yes	--

quisition oduction Other	Intra-Agency Contact	Remarks
ractors can furnish copies of color verages	State Land Commissioner, State of Texas, Stephan F. Austin Bldg., Austin, Tex. 78701	
help in arranging for reproduction commercial firms	Director, Texas Forest Service	
help in arranging for reproduction contractors	Director of Engineering	
help in arranging for reproduction contractor, or may contact the contractor directly: Olympus Aerial Surys, Inc., 50 West 2950 South, lt Lake City, Utah	Director, Div. of Parks and Recreation, c/o Landscape Architect and Environmental Planner	
help in arranging for reproduction contractors	Location Engineer, Room 408	
help in arranging for reproduction desired coverages from negatives ld by contractors	Aerial Engineer, Planning Div.	Holds most vertical photography flown by other state agencies in Vermont. Descriptions and ordering procedures can be obtained from the State Highway Dept. upon request
--	Div. Engineer, Location and Design Div.	Flys and retains nearly all state-acquired photography in Virginia
--	Asst. Director for Highway Development	
prefers that contractors holding the gatives do reproduction of desired verages. DNR will assist the requester in arranging for production	Dept. of Photogrammetry	Publishes yearly aerial photography indexes of coverages flown within the state. Indexes available for 1948-1975. Information includes project symbol, year flown, scale, focal length, negative owner, and contractor. Copies of indexes may be obtained from the Resource Inventory Section
help in arranging for reproduction	Commissioner of Highways	
--	--	Publishes an "Inventory of Coastal Imagery," in which available aerial photographs and other remote sensing imagery of Wisconsin's Lake Michigan and Lake Superior shorelines are indexed. Updated periodically. Copies will be furnished on request
--	Engineering Services Section, Room 5B	
--	--	Publishes a "Catalog of Aerial Photography" for the state of Wisconsin, in which all photography flown by state and Federal agencies during 1970-1974 is indexed. Catalog will be updated annually and is available on request
--	Chief, Photogrammetry and Surveys	

In accordance with letter from DAEN-RDC, DAEN-ASI dated 22 July 1977, Subject: Facsimile Catalog Cards for Laboratory Technical Publications, a facsimile catalog card in Library of Congress MARC format is reproduced below.

May, John R
Guidance for application of remote sensing to environmental management; Appendix A: Sources of available remote sensor imagery / by John R. May. Vicksburg, Miss. : U. S. Waterways Experiment Station ; Springfield, Va. : available from National Technical Information Service, 1978.
14, [18] p. : ill. ; 27 cm. (Instruction report - U. S. Army Engineer Waterways Experiment Station ; M-78-2, Appendix A)
Prepared for Office, Chief of Engineers, U. S. Army, Washington, D. C., under Project 4A762720A896, Task 01, Work Unit 003.

1. Aerial photography. 2. Aerial surveys. 3. Environmental management. 4. Remote sensing. 5. Remote sensing data. I. United States. Army. Corps of Engineers. II. Series: United States. Waterways Experiment Station, Vicksburg, Miss. Instruction report ; M-78-2, Appendix A.
TA7.W34i no.M-78-2 Appendix A