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# Aerial Photography Summary Record System—Five Years Later

The System includes a central descriptive file of conventional aerial photography projects planned or completed by federal, state, and local agencies and private aerial mapping companies.

W HEN THE National Cartographic Information Center (NCIC) was formed in July 1974 in the U.S. Geological Survey, one of its first undertakings was to establish an automated information system for conventional aerial photography projects—the Aerial Photography Summary Record System, or APSRS. This system was designed to help eliminate the growing number of duplicate projects by establishing a central descriptive file of projects planned or completed by federal, state, and local agencies and private aerial mapping companies. By early 1975 the specifications for APSRS had been developed, and by late 1975 the first entries had been made into the system.

Considerable thought had been given to the information necessary to describe properly the various projects. Because project specifications vary so widely, APSRS was designed to store detailed descriptions. The projects could be in the planning stage or could have been completed. To enter in-



FIG. 1. Portion of New Mexico State-Base Graphic, photo coverage of the 1960's at the scale range of 1:40,000 and larger.

### PHOTOGRAMMETRIC ENGINEERING & REMOTE SENSING, 1980

### TABLE 1. APSRS STATE-BASE GRAPHIC CATEGORIES

	1:75,001 to 1:150,000 scale
Photography flown July 1977 to present 1:40,000 scale and larger	Photography flown 1949 and 1:40,000 scale and larger
Photography flown July 1977 to present 1:40,001 to 1:75,000 scale	Photography flown 1949 and 1:40,001 to 1:75,000 scale
Photography flown July 1977 to present 1:75,001 to 1:150,000 scale	Photography flown by the U.S. Geological Survey
Photography flown January 1970 to June 1977 1:40,000 scale and larger	Photography flown by Nation Aeronautics and Space Admir
Photography flown January 1970 to June 1977 1:40,001 to 1:75,000 scale	Photography flown by Agricu Stabilization and Conservatio Service
Photography flown January 1970 to June 1977 1:75,001 to 1:150,000 scale	Photography flown by Soil Conservation Service
Photography flown 1960 to 1969 1:40,000 scale and larger	Photography flown by U.S. For Service
Photography flown 1960 to 1969 1:40,001 to 1:75,000 scale	Photography flown by Bureau of Land Management
Photography flown 1960 to 1969 1:75,001 to 1:150,000 scale	Photography flown by Nation Ocean Survey

Photography flown 1950 to 1959 1:40,000 scale and larger

Photography flown 1950 to 1959 1:40,001 to 1:75,000 scale

Photography flown 1950 to 1959

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Number of times a 7.5-minute quad has been covered

Alabama/Georgia	Kentucky/Tennessee
Alaska	Michigan/Wisconsin
Arizona	Minnesota
Arkansas/Louisiana/Mississippi	Montana
Northern California	Nebraska
Southern California	Nevada
Colorado	New Jersey/Pennsylvania
Connecticut/Massachusetts/	New Mexico
Maine/New Hampshire/Rhode Island/ Vermont	New York
Delaware/District of Columbia/	North Carolina/South Carolina
Maryland/Virginia/West Virginia	North Dakota/South Dakota
Florida	Oregon
Hawaii	North Texas/Oklahoma
Idaho	South Texas
Illinois	Utah
Indiana/Ohio	Washington
Iowa/Missouri	Wyoming
Kansas	

#### TABLE 2. APSRS STATE-BASE GRAPHIC BOOKLETS

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formation into APSRS, details such as image scale, location, and flight date are coded by either NCIC or the agency or company responsible for the aerial project, and then entered by NCIC into the APSRS data base.

Information in APSRS can be retrieved in a number of ways. Selected graphics are available by state as a standard product. Agencies and companies that have contributed records of their photo projects are given periodic reports on all the holdings in the system, and microfiche (computer listings) are generated for public sale. Also, selective searches of the data base can be performed to find specific types of projects. For example, the computer can be queried to find all 1:40,000-scale color-infrared projects in Florida between 1960 and 1969.

A new APSRS product is the series of State-base graphics; map indexes, grouped by State, that show planned and completed projects at various time periods and scales or by photography ownership. These graphics are updated at six-month intervals. Figure 1 is a reproduction of a portion of the graphic for New Mexico, which shows photographic coverage during the 1960 decade at the scale range of 1:40,000 and larger.

Twenty-three graphics are generated for each state from the APSRS data base. Table 1 lists the present categories. For a few federal agencies with major coverage, NCIC produces indexes. All other sources are contained within the different categories. As more agencies and companies participate in APSRS and descriptions of their projects are entered into the system, more categories of graphics will be produced.

The graphics are released in a series of booklets; generally each state has its own booklet, but in some cases several states are combined for more uniform areal coverage (Table 2).

Through personal contacts and by correspondence, NCIC is actively seeking new contributors to the APSRS data base and is interested in collecting descriptions of aerial projects flown anywhere in the United States at any time. At present APSRS contains descriptions of over 100,000 projects sent in by 135 different contributors, including 43 federal, 23 state, and 15 local government agencies; 52 private companies; and two universities.

For more information about APSRS products or for information on how to become an APSRS contributor, contact the APSRS Program Manager, U.S. Geological Survey, NCIC, 507 National Center, Reston VA 22092. Telephone (703) 860-6509.

(Received 20 December 1979; revised and accepted 1 August 1980)

## Forthcoming Articles

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Roger R. Chamard, Photogrammetric Mapping: A Chain of Events.

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Stanley H. Collins and George C. Moon, Algorithms for Dense Digital Terrain Models.

J. R. Gibson, A. J. Dow, and S. E. Masry, Adjustment of Position Using Inertial Navigation Systems.

S. F. El Hakim and W. Faig, A Combined Adjustment of Geodetic and Photogrammetric Observations.

Dr. Marsha Jo Hannah, Error Detection and Correction in Digital Terrain Models.

R. M. Hodgson, F. M. Cady, and D. Pairman, A Solid-State Aircraft Sensing System for Remote Sensing. John K. Mitchell, The Pitfalls and Temptations of Aerial Mapping.

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P. R. Stephens, D. L. Hicks, and N. A. Trustrum, Aerial Photographic Techniques for Soil Conservation Research.

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