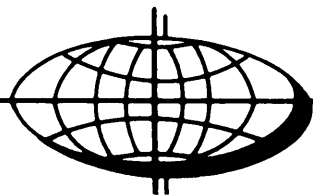


NATIONAL  
CARTOGRAPHIC  
INFORMATION  
CENTER

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# NEWSLETTER

U.S. DEPARTMENT OF THE INTERIOR/GEOLOGICAL SURVEY

SUMMER/FALL 1976



National Cartographic Information Center  
U.S. Geological Survey  
507 National Center  
Reston, Virginia 22092  
703-860-6045

Summer/Fall 1976

National Cartographic  
Information Center Newsletter No. 5

## INTRODUCTION

In NCIC related news, the Center concluded arrangements for its first non-Federal affiliate, the great State of Texas (yes, the political conventions in July and August did get to us).

The profile in this issue describes the Map Section of the Geological Survey Library. (And here I have a note from Dick Swinnerton, Chief of NCIC, asking me to remind readers that NCIC is not a library or depository of cartographic products. Rather NCIC organizes and distributes information about the products available from government agencies and commercial firms and collected by libraries.)

Among other things in the area of new products, the Forest Service has been tampering with vending machines, rigging them to sell maps, and the Geological Survey has come out with a series of folded maps for the recreationally minded.

Incidentally, we're finally getting our computer mailing list into a single, easily accessed file. If any of you have been receiving extra copies of the newsletter, or conversely no copies, contact the newsletter office (use the address above or telephone 703-860-6151, FTS-928-6151) and we'll straighten matters out.

Nancy Faries  
Editor

## CARTOGRAPHIC NEWS

### Historical county boundary study

The Newberry Library of Chicago is sponsoring a trial project of compiling a data file of historical changes in New Jersey and Pennsylvania county boundaries. The project is intended to demonstrate the feasibility, methods, and utility of producing such a file for the entire country. In addition to county, State and national boundaries, the file will inventory all congressional districts, some State electoral districts and civil divisions, State capitals and county seats, pertinent names, coastal shorelines, and major rivers.

A long-range goal, depending on the success of the trial project, is a machine-readable file of all boundary changes of counties and other governmental and administrative units occurring between 1790 and 1970. A national data file will make it possible to produce, on demand, maps of nearly any size, scale, and projection covering any specified area (including interstate regions) at any given time over the last two centuries.

Cartographic compilation will be based on the 1:250,000-scale series of maps published by the Geological Survey. The data file will be designed, and tested and the data digitized at the University of Wisconsin Cartographic Laboratory at Madison. Financial support is being provided by the National Endowment for the Humanities.

For more information, write John H. Long, at the Newberry Library, 60 W. Walton Street, Chicago, Illinois 60610.

### Kennedy Space Center Bicentennial exposition

The Kennedy Space Flight Center in Cape Canaveral, Florida sponsored a U.S. science and technology Bicentennial exposition this summer. Located at the KSFC Complex 39 Launch Control Center, 15 geodesic domes housed large exhibits from science-related Federal agencies. NASA's exhibit was located within the actual launch center, where a multimedia presentation of an Apollo/Saturn countdown and launching sequence could be experienced in one of the firing rooms. Another agency, the Department of Agriculture, ran a multiscreen slide presentation on, you guessed it, food, with regular panel exhibits on land use and modern agriculture techniques.

The Geological Survey sent its usually well-endowed exhibit with the Topographic Division contribution covering the development of mapmaking from 1800 on, the new National Mapping Program, and various types of cartographic products. At the information booth workers handed out inquiry cards, which exposition visitors used to ask for more information on topographic maps, aerial and satellite imagery, and orthophoto pro-

ducts. The response so far has been quite encouraging. Those serious enough to invest in a stamp are receiving more descriptive papers, samples, and ordering information than they probably ever hoped to see.

## NCIC NEWS

### APSRs catalogs published

With publication of its first set of index catalogs, the Aerial Photography Summary Record System (APSRs) has moved from the theoretical to the operational level. The system being developed by NCIC with the cooperation of many Federal agencies can eventually catalog most planned, in progress, and completed aerial photography in the U.S. With APSRS information, intelligent decisions can be made on photograph acquisition.

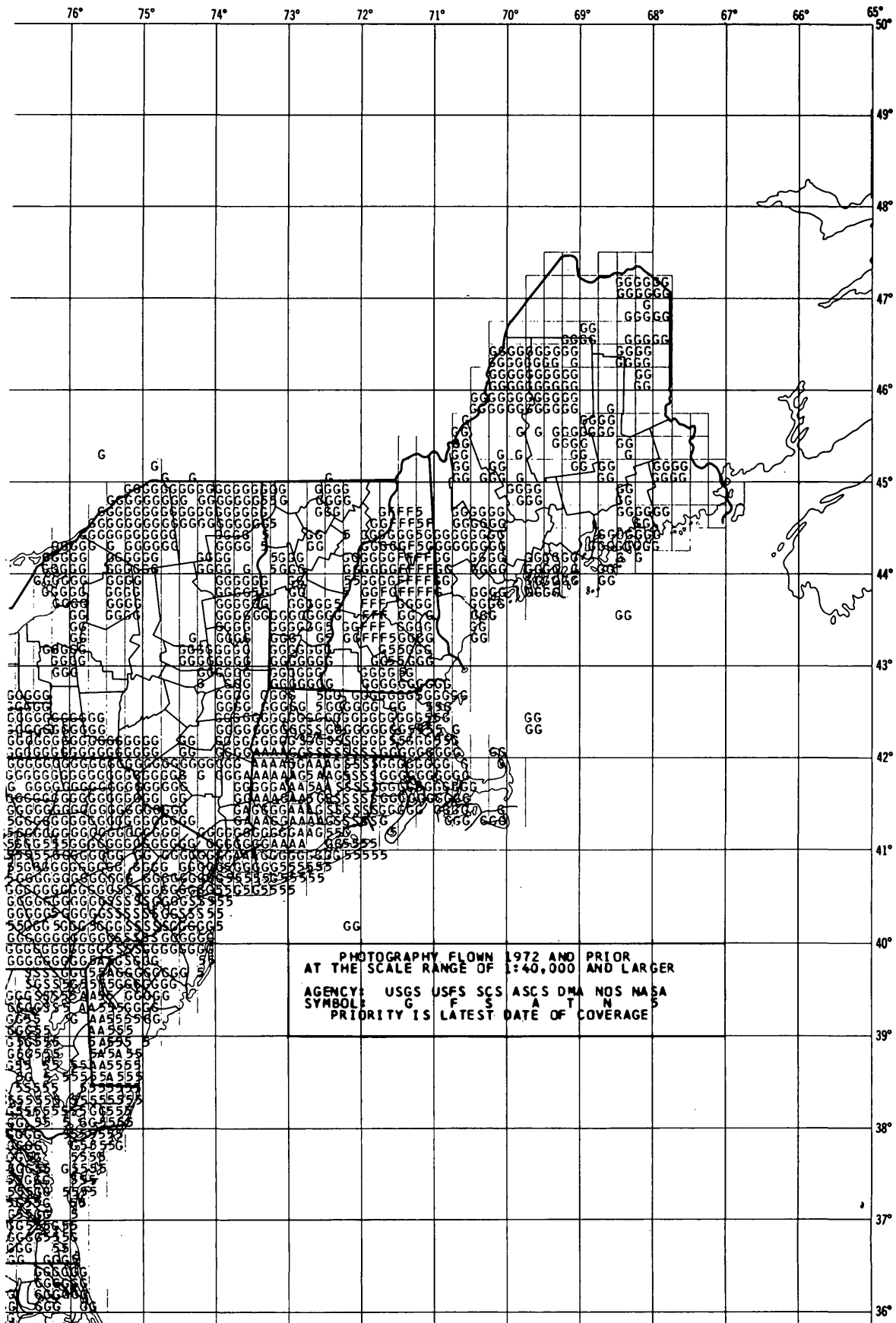
By July enough information had been contributed by NCIC's major cooperators, ASCS, GS, NASA, SCS, NOS, USFS, and DMA to begin compilation of the first catalogs and microfiche. Four catalogs cover the U.S. between the Canadian and Mexican borders. In each catalog outline map indexes (see illustration on page four) are used to indicate geographic coverage, time range of acquisition, scale range, and acquiring organization. Each symbol refers to a 7.5-minute cell. The symbol represents the agency owning the photographs; for example, the letter G dominating the illustration represents USGS large scale (larger than 1:40,000) photographs.

Eight maps, each showing a different category of data, are published in the catalogs. The categories or data layers are as follows:

- \* planned photography (contract has not been let)
- \* photo projects in progress.
- \* photographs taken in 1972 or earlier, scale larger than 1:40,000
- \* photographs taken in 1972 or earlier, scale 1:40,001 to 1:75,000
- \* photographs taken in 1972 or earlier, scale smaller than 1:75,001
- \* photographs taken 1973 to present, scale larger than 1:40,000
- \* photographs taken 1973 to present, scale 1:40,001 to 1:75,000
- \* photographs taken 1973 to present, scale smaller than 1:75,001

The catalogs show the most recent coverage available. Backing up the catalogs are microfiche computer printouts that list for each cell, the percentage of cloud cover, type of camera, scale, date, and agency project code. The catalogs cost \$1 each. The cost of microfiche ranges between \$1.50 and \$3, depending on the set ordered. You will probably want to consult the catalogs before ordering the microfiche. Catalog 2 covers the United States from longitude 125 to 110, catalog 3 from 110 to 95, catalog 4 from 95 to 80, and catalog 5 from 80 to 65 (catalog 1--Alaska--has not been published yet).

To order the catalogs write NCIC's User Services Section, address page 12.



APSRs - status of the data base

Figuratively speaking, the APSRS file data base is growing like Topsy. To help our cooperators and interested users keep track of all the additions, we're publishing in the next several issues a status chart showing cooperating Federal and State agencies and private companies; their estimated total holdings of aerial imagery; approximate percentage of holdings in the APSRS file; number of records and status of projects (planned, in progress, or completed); the total records received, and miscellaneous useful information.

## APSRs DATA BASE - JULY 1976

Agency	Est. total holdings (no. frames)	Approx. % holdings in APSRS	(No. of records) Status of photos*			Records (total)	Remarks
			1	2	3		
USDA							
ASCS	5,000,000	40%	33	49	5645	5727	Input by NCIC & ASCS
FS	800,000	45%	136	71	2918	3125	Input by FS> 1:40,000
SCS	700,000	35%	---	--	629	629	Input by SCS >1:40,000
DOD							
DMATC	35,000	--	---	2	224	226	Input by NCIC & Topo-Com
DIA	12,000,000	--	---	---	---	---	Fall '76 input
DOI							
USGS	5,000,000	90%	643	1208	34198	36049	EDC transfer of data base software completed.
BLM	300,000	--	---	---	333	333	
BOR	80,000	--	---	---	139	139	
NASA							
AMES	>1,000,000	95%	---	---	16750	16750	EDC transfer of data base software completed.
JSC	> "	"	---	---	50035	50035	
MARSHALL	4,100	?	---	---	533	533	
DOC							
NOS	550,000	10%	---	---	1690	1690	Latest date coverage of U.S. coastal areas.
TVA	175,000	--	---	---	---	---	Fall '76 input.
STATES							
Texas	?	--	---	---	---	---	Fall '76 input
PRIVATE							
MARK HURD	?	?	0	0	200	200	1:80,000 quadcentered 1976
KEYSTONE	?	?	0	0	24	24	1:80,000 quadcentered only of N.E. U.S.
TOTAL	25,644,100	--	812	1130	113,565	115,70	

\*Symbols 1-planned  
2-in progress  
3-complete

## NCIC State affiliate

In 1973, the Texas Interagency Council on Natural Resources and the Environment approved recommendations for organizing a center to coordinate environmental and natural resource data for a network of 14 State agencies. The result was the Texas Natural Resources Information System (TNRIS). In addition to coordinating data, the TNRIS staff, Systems Central, is also responsible for distributing natural resource information to State, Federal, regional, local, and private organizations in Texas. Since cartographic information is a vital part of the resource coordination business, TNRIS contacted NCIC with the idea of exchanging information and ended up becoming the first State-level NCIC affiliate.

The affiliation is an experiment for both NCIC and TNRIS in distributing Federal cartographic information on the State level. A working management agreement was signed in May, defining the goals and responsibilities of both parties in the experiment. Among the main provisions is a commitment by NCIC to arrange for inquiry and ordering capabilities for aerial and space imagery. In addition, NCIC will provide the new network with indexes and catalogs of Texas related cartographic data, and microfilm copies of the catalogs and indexes of Geological Survey topographic maps and other cartographic products.

The NCIC function of TNRIS is to provide information and ordering assistance to government agencies, universities, and private users. Orders for cartographic products are forwarded to the EROS Data Center in South Dakota, to the NCIC-Rocky Mt. Mapping Center in Denver, or to other agencies as information about their cartographic data become available to NCIC.

The Texas NCIC network is now inventorying the cartographic holdings of State and local government agencies and commercial firms and sending selected data descriptions to NCIC's headquarters for inclusion in NCIC's master files.

As the first State-level NCIC center, TNRIS has agreed to send NCIC-Reston periodic reports on the volume and nature of user inquiries and requests, in addition to an evaluation report at the end of the first year of operation. The report will be used to help define Federal and State responsibilities for collecting and distributing cartographic information and as a guide for setting up other State level offices.

## NCIC management agreement update

NCIC is a cooperative venture, our success depending on the spirit, goodwill, and various information agreements we can establish between the Center and all levels of Federal, State, and private cartographic information gatherers and users. Last fall, we ran a chart that detailed the management agreements in effect, agencies contacted, and organi-



zations attending our Coordinating Conference. It's about time to bring you up to date on our cooperative progress. This issue we're listing the organizations we have formal agreements with, dates of negotiations and signing, and principal types of information the agreements cover. The chart should give you an idea of where NCIC is heading and the types of information it is concentrating on referencing.

STATUS  
OF  
MANAGEMENT AGREEMENTS

AGENCY	AGREEMENT UNDER NEGOTIATION	SIGNED AGREEMENT	PRINCIPAL AGREEMENT COVERAGE
DEPT. OF AGRICULTURE			
AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE (ASCS)		Aug. 75	Aerial imagery & other cartographic data
FOREST SERVICE (FS)		Mar. 76	Aerial imagery & other cartographic data
SOIL CONSERVATION SERVICE (SCS)		May 75	Aerial imagery & soil survey data
DEPT. OF COMMERCE (DOC)			
BUREAU OF THE CENSUS (CENSUS)			
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)	}	June 74	Geodetic control
NATIONAL OCEAN SURVEY (NOS)		Sept. 75	Aerial imagery
ENVIRONMENTAL DATA SERVICE (EDS)			
NATIONAL TECHNICAL INFORMATION SERVICE (NTIS)			
DEPT. OF DEFENSE (DOD)			
CORPS OF ENGINEERS (CE)	Mar. 76		Aerial imagery & other cartographic data
DEFENSE INTELLIGENCE AGENCY (DIA)		Feb. 76	Aerial Imagery
DEFENSE MAPPING AGENCY (DMA)	June 76		Aerial imagery & other cartographic data
DEPT. OF HOUSING AND URBAN DEVELOPMENT (HUD)	July 76		Aerial photography & mapping data
DEPT. OF THE INTERIOR (USDI)			
BONNEVILLE POWER ADMINISTRATION (BPA)			
BUREAU OF INDIAN AFFAIRS (BIA)			
BUREAU OF LAND MANAGEMENT (BLM)		June 76	Cartographic & Cadastral Information Mgmt.
BUREAU OF MINES (BM)			
BUREAU OF OUTDOOR RECREATION (BOR)			
FISH AND WILDLIFE SERVICE (FWS)	Sept. 75		Aerial photography
GEOLOGICAL SURVEY (GS)			
ADMINISTRATIVE DIVISION (AD)			
COMPUTER CENTER DIVISION (CCD)			
CONSERVATION DIVISION			
LAND INFORMATION AND ANALYSIS (LIA)			
EROS DATA CENTER (EDC)		Dec. 75	Aerial & space imagery
GEOGRAPHY PROGRAM (GP)			
GEOLOGIC DIVISION (GD)			
PUBLICATIONS DIVISION (PD)		June 76	Customer servicing - cartographic products
TOPOGRAPHIC DIVISION (TD)			
WATER RESOURCES DIVISION (WRD)			
NATIONAL PARK SERVICE (NPS)			
DEPT. OF TRANSPORTATION (DOT)			
FEDERAL AVIATION ADMINISTRATION (FAA)			
FEDERAL HIGHWAY ADMINISTRATION (FHWA)			
COAST GUARD (CG)			
INDEPENDENT AGENCIES			
DELAWARE RIVER COMMISSION (DRC)			
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION (ERDA)			
ENVIRONMENTAL PROTECTION AGENCY (EPA)	July 75		Aerial imagery & other cartographic data
FEDERAL COMMUNICATION COMMISSION (FCC)			
GENERAL SERVICES ADMINISTRATION (GSA)			
FEDERAL PREPAREDNESS AGENCY (FPA)			
NATIONAL ARCHIVES AND RECORD SERVICE (NARS)		Mar. 76	Aerial imagery & other cartographic data
GOVERNMENT PRINTING OFFICE (GPO)			
LIBRARY OF CONGRESS (LC)			
MISSISSIPPI RIVER COMMISSION (MRC)			
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)			
NATIONAL SCIENCE FOUNDATION (NSF)			
TENNESSEE VALLEY AUTHORITY (TVA)	Aug. 75		Aerial imagery & mapping data
BILATERAL ORGANIZATIONS			
INTERNATIONAL BOUNDARY COMMISSION (IBC)			
INTERNATIONAL BOUNDARY AND WATER COMMISSION (IBWC)			
STATE GOVERNMENTS			
TEXAS NATURAL RESOURCES INFORMATION SYSTEMS (TNRIS)		Apr. 76	Aerial imagery & other cartographic data

## PROFILE

### Map Section - Geological Survey Library

The Map Section of the Geological Survey Library is a first order cartographic resource, with a goal of worldwide geoscience map coverage. Collection of the maps currently held began with the establishment of the Survey in 1879. By 1900 the Library had acquired 29,000 map sheets, and by 1976 the collection had grown to 225,000 map sheets (an additional 100,000 sheets are held by library branches in California, Colorado, and Arizona).

Major subjects covered include geology, mineral resources, geophysics, water resources, oceanography, soils, and vegetation. The Map Section also tries to acquire all topographic quadrangles published by the Geological Survey. Supplementary cartographic resources available in the Section and elsewhere in the Library include atlases; gazetteers; maps and diagrams in books and periodicals; geological, water resources and topographic index maps, and geographic and cartographic journals and reference books.

To make the Map Section more responsive to its users, means of automating and improving the map cataloging system are being sought. At present, maps are stored according to a natural-language titling system under which they are labeled by geographic area, subarea, subject, scale, and date before being filed in map drawers. Retrieval of individual maps requires interpretation of the map labels and direct access to the collection. A descriptive card file is kept for the Survey-produced map series and important thematic maps.

There is no published catalog for the map collection. However, a bibliographic record of thematic maps published by the Geological Survey (almost all of them are held by the Map Section) is provided by the catalogs, "Publications of the Geological Survey, 1879-1961", and "Publications of the Geological Survey 1962-1970". Both of these catalogs can be ordered without charge from the USGS Branch of Distribution, 1200 South Eads Street, Arlington, Virginia 22202. New maps are similarly listed in the monthly periodical "New Publications of the Geological Survey" (with cumulative annual issues). "New Publications" also lists limited-distribution Open File Reports (some of which are maps), new topographic quadrangle maps, and thematic maps. It can also be ordered without charge from the Publications Division, U.S. Geological Survey, 329 National Center, Reston, Virginia 22092.

A bibliography of major geologic maps in the collection (compiled by Mark Pangborn, a former map curator) has been published as part of "Geological Reference Sources", by Dederick C. Ward and Marjorie W. Wheeler (Metuchen, New Jersey, The Scarecrow Press, 1972). A selective monthly listing of important map accessions is compiled for publication in the journal Geotimes (available from the American Geological Institute, 5205 Leesburg Pike, Falls Church, Virginia 22041).

Special services provided by the Map Section include (1) lending maps

to other libraries as a part of the standard American Library Association interlibrary loan program; loan requests directed to the Geological Survey should be specifically addressed to the Survey Library; (2) referring users who need copies of out-of-print or otherwise unavailable maps to local photoduplication firms (the Library is not equipped to provide photoduplication service); requests for copies of, or information about, Geological Survey Open File Report maps (which are produced in very limited numbers) should be addressed to the nearest USGS geological depository, or directly to the Map Section; (3) providing convenient access to large numbers of current USGS topographic maps; after screening maps in the collection, customers can usually buy copies at the Public Inquiries Office in the USGS National Center at Reston.

The Map Section is staffed by three professional librarians and one library technician. They provide reference services for Geological Survey researchers, other government agencies, colleges and universities, commercial firms, and the general public. The section is located in Room 4-A-104A at the USGS National Center and is open daily from 7:45 a.m. to 4:15 p.m.

Address any correspondence to: U.S. Geological Survey Library, 950 National Center, 12201 Sunrise Valley Drive, Reston, Virginia, 22092. Telephone, 703-860-6679, or FTS 928-6679.

John Schroeder  
Map Section Head

## NEW PRODUCTS

### Maps from vending machines

Remember the old vending machines where when you put your money in, a candy bar dropped into your hand? If the machine didn't jam? If you went to the movies you used them. These days, if you go to the district ranger station in Oregon's Umqua National Forest you'll get a chance to tackle the vending machine again, this time to buy maps.

The Forest Service has been folding and giving away maps for years as a convenience for their predominately recreational map users. Selling the maps out of vending machines, however, is a new idea and a new convenience for map users. The Umqau machine is stocked with the Umqua National Forest map (scale 3/8 inch to 1 mile) and recreational folders for Umqua and the adjacent Willamette, Deshutes, Fremont, and Rogue River national forests. The recreational folders measure a handy 3 1/2 x 7 inches and detail camping, boating, trail, and historical information for each national forest.

The maps and folders cost 50 cents each, reflecting the Forest Service's decision to start charging enough for their cartographic products to cover printing costs. If this experiment in automatic map sales catches on, meaning that the machine doesn't jam, and users like the service, the Forest Service will consider rounding up more vending machines for conversion.

## NCIC map sources

Many types of maps, charts, atlases, and globes are available from commercial firms and geographical societies. As part of NCIC's goal of spreading useful cartographic information, we are offering a 6-page, neatly-Xeroxed list of some of the better known map sources. To order, write or call User Services (address page 12). This list is for information only. It is not to be taken as a Geological Survey endorsement or recommendation of the companies or their products. If a map source you think should be listed isn't, let us know.

## USGS folded maps

Over the years the USGS has often been urged to supply its maps in a standard folded format. Many other countries do so, and of course everybody is familiar with road maps, National Geographic maps, and many others that are delivered to the customer folded. Maps are simply easier to stock, mail, carry, and use if they are neatly folded.

Unfortunately, folded maps also have their own problems. Technical users in their airconditioned labs despise the creases they can't get out, while hikers and travelers complain that they can never refold a map back to its original neat packet. For the USGS mapmaker--producer--distributor folded maps mean trouble in ways never thought of, like having to stock sizable quantities of both flat and folded copies of as many as 50,000 maps.

To find out what the real (rather than the theoretical) map users think of folded maps, the USGS is currently inviting opinions from buyers of trial folded maps which are being put on sale this year. The first of the trial maps, which appeared in July, was the 1:50,000-scale map of Mount Rainier National Park, housed in a custom-printed jacket and distributed by many map dealers in the Pacific Northwest. In the park, users can buy either the flat or the folded version at seven park association offices. The Mount Rainier map will also be exhibited at the ACSM-ASP fall convention in Seattle, September 28 to October 1. It sells for \$2 and can be ordered from the Branch of Distribution, U.S. Geological Survey, Box 25286, Denver, Colorado 80225; it is also sold over the counter at the USGS Public Inquiry Offices in Spokane, San Francisco, and Los Angeles.

To test another type of container for folded maps, a red, white, and blue plastic pouch with a zip-lock top will be used for 22 selected quadrangles in popular demand. These maps will be available at a later date for \$1.25, the same price as the ordinary flat copies. The plastic pouch, moisture proof and dustproof, should provide good protection for maps carried by hikers, campers, and fishermen. Each map packet will contain a reply postcard for users to say what they think. The next issue of the newsletter will list the folded maps available.

The third format for folded maps (also to be tested later), will have an attached stiff, cardboard cover that folds over the top of the map providing long wearing protection. Another national park map will likely be selected to gain opinions from map users. For details, watch this space. Meanwhile if you have a strong opinion about folded maps, plus or minus, for or against, address your letter to the Chief, Topographic Division, U.S. Geological Survey, 514 National Center, Reston, Virginia 22092.

Ray Hill  
Cartographer, USGS

### State cartographic information offices

Having generally reconnoitered the Federal cartographic information field, NCIC is making a determined push to extend its information services to the State level. The establishment of cooperative State affiliates, such as TRNIS in Texas, is one example of expanding outlets. Another less expensive but highly useful method of publicizing State information is through the newsletter.

This issue we'd like to recommend a list of major cartographic map sources in each State. These offices handle a variety of cartographic data in addition to travel and recreation information. Who has what, varies from State to State, but the office title, for example, the Alaska Department of Natural Resources should aim you in the right direction.

The list of State cartographic information offices is another freebie available by contacting NCIC's Users Services.

### MEETINGS AND CONVENTIONS

#### Late September to December 1976

ASCE Meeting	Philadelphia, Pennsylvania September 30, 1976
ACSM-ASP Fall Technical Meeting	Seattle, Washington September 28 - October 1
2nd Annual William T. Pecora Memorial Symposium--"Mapping with Remote Sensing Data"	Sioux Falls, South Dakota October 25 - October 29
SCAR Meeting of Working Groups on Geodesy, and Cartography, Glaciology and Logistics	Mendoza, Argentina October 12 - October 16

## MEETINGS AND CONVENTIONS CONT'D

XIV Meeting of SCAR

Mendoza, Argentina  
October 18 - October 23

Hungarian Cartographic Conference

Budapest, Hungary  
October 19 - November 1

## ADDRESS INDEX (by articles)

### Historical county boundary study

John H. Long  
The Newberry Library  
60 W. Walton Street  
Chicago, Illinois 60610

The Scarecrow Press Inc.  
52 Liberty Street  
Box 656  
Metuchen, New Jersey 08840

Geotimes  
American Geological Institute  
5205 Leesburg Pike  
Falls Church, Virginia 22041

### APSRs catalogs

NCIC, User Services Section  
U.S. Geological Survey  
507 National Center  
Reston, Virginia 22092

### NCIC map sources

see address, APSRS catalogs

### NCIC State affiliate

TNRIS, Systems Central  
P.O. Box 13087  
Austin, Texas 78711

### USGS folded maps

Mount Rainier maps -

Branch of Distribution  
U.S. Geological Survey  
Box 25286  
Denver, Colorado 80225

### Map Section

U.S. Geological Survey Library  
950 National Center  
12201 Sunrise Valley Drive  
Reston, Virginia 22092

Opinions -

Chief, Topographic Division  
U.S. Geological Survey  
514 National Center  
Reston, Virginia 22092

Branch of Distribution  
U.S. Geological Survey  
1200 South Eads Street  
Arlington, Virginia 22202

Publications Division  
U.S. Geological Survey  
329 National Center  
Reston, Virginia 22092

### State cartographic information offices

see address, APSRS catalogs