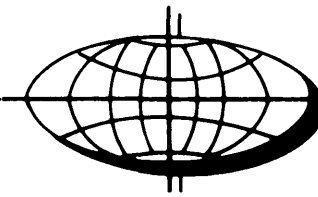
NATIONAL CARTOGRAPHIC INFORMATION CENTER



NEWSLETTER

U.S. DEPARTMENT OF THE INTERIOR/GEOLOGICAL SURVEY

SPRING 1975

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

March 1975

National Cartographic Information Center Newsletter No. 1

This is the first of what we hope will become a continuing series of quarterly NCIC newsletters. You, the reader, are encouraged to make comments, offer praise or criticism as the occasion warrants, send in suggestions, and contribute information or articles.

In this issue, we plan to present information on NCIC's operating concepts, systems, and data base and several data acquisition notes. We also have a few words on our future plans along with a brief article on our current microfilming program and a general organizational chart designed to introduce our key personnel.

We realize that with such a large amount of basically introductory material our first issue is going to be a bit on the heavy side. Bear with us now and we promise a more traditional format with a lighter editorial touch in the future.

NCIC - an introduction

The National Cartographic Information Center (NCIC) was officially announced at last April's American Society of Photogrammetry and American Congress on Surveying and Mapping Convention, in a paper delivered by Rupert B. Southard of the U.S. Geological Survey. This culminated several years of planning for an interagency center that would be capable of accessing the vast and sometimes overlapping cartographic information holdings of over thirty different Federal agencies, and countless State, County, and private organizations.

Operating Concepts - or, NCIC really needs you

NCIC's primary role is to develop a data base that contains information on what cartographic data is held where, and by whom, and to set up systems to tap and distribute that information as rapidly as possible when needed. In order to do this, NCIC operates with two basic concepts in mind. First, to the greatest possible extent, existing organizations should continue to store and distribute their own cartographic data. This means, for example, that geodetic control data will stay within the jurisdiction of the National Geodetic Survey (NGS), aerial photographs and space imagery will continue to be held by the Agricultural Stabilization and Conservation Service (ASCS), the Earth Resources Observation Satellite (EROS) Data Center, and others, and maps and their component parts, such as color separates, will likely stay with their originating agencies.

We are therefore encouraging customers to continue dealing directly with other agencies if they know what they want and where to get it, but to come to NCIC if they are uncertain about what is available or who holds it.

Second, NCIC plans to keep abreast of new cartographic information as rapidly as it is compiled by agencies, and will monitor their plans for the collection and preparation of new data.

Systems - or just how to keep efficient track of that vital piece of data you suddenly discovered you needed two days ago

In order to answer the many questions as to what data is available and where it is located, NCIC plans to rely on both summary and unit records systems for data storage and retrieval. Summary records will provide a general knowlege of the existence of cartographic data but for a given area may not, in themselves, provide enough information to identify an individual product so it can be ordered. The value of summary records lies in the system's ability to quickly store massive amounts of information at a reasonable cost. The first summary records system is being developed to hold and/or generate aerial photographic information. The system (to be operational by April 15, we hope) will contain information on the extent, general characteristics, and geographic coverage of data now held by various organizations, plus their plans for acquiring additional photographs, with an initial emphasis on high-altitude imagery.

Unit records will contain more comprehensive information and will be set

up to correspond to individual cartographic products. They will contain not only sufficient information for ordering, but also keys to both the microfilm file copy and files of the component parts of individual products.

Two additional unit data storage systems we hope to have in working order shortly are a standard product coding program for all U.S. Geological Survey products and an information system for maps and charts. They are now in the systems analysis stage having their feasibility probed and a few bugs exterminated.

Finally, we are particularly pleased with the development of an internal order tracking system designed for our routing and control personnel. When pressed to classify this new system as either summary or unit (in order to fit neatly into this article) our systems analyst replied, "Neither, it's a business management system to keep track of what inquiries are here, when they arrived, and their present status," which may well be a singularly apt classification unto itself.

Data Base - or what NCIC actually has got, or is in the process of getting - versus wistful thinking

1. A preliminary inventory of the various sorts of maps and charts currently held by Federal agencies has been completed. As negotiations progress and mutual trust grows, we will be updating and revising this inventory.

2. As of 1974 we have managed to include information on all of the U.S. Geological Survey's quadrangle maps into a computer base that can generate, in easily decipherable form, a catalog on computer output microfilm.

3. A first go-round version of a computer-generated orthophotoquad status map has been prepared and distribution on a regular basis will start soon.

4. NCIC now has access to aerial and space imagery in the EROS Data Center, including nearly all U.S. Geological Survey aerial photography and NASA space and aircraft imagery. Work has started on including in the EROS Center's Data Base some Corps of Engineers imagery for easier retrieval and distribution. Computer terminal access is available to EDC from our Reston Office, and from the

Geological Survey's Mapping Centers in Rolla, Missouri; Denver, Colorado; and Menlo Park, California, as well as the Test Facility in Bay St. Louis, Mississippi.

5. We are currently inventorying all Federal agency holdings and acquisition plans for high-altitude (less than 1:40,000-scale) aerial photographs. A workshop will be held in March with several agencies to introduce the system and to start the input of their data into the aerial photography summary record system.

6. Preparations for the transfer of our U.S. Geological Survey geodetic control to the National Geodetic Survey Information Center is underway. Work is starting now to convert the USGS data into digital form. During the period of transfer, which could take from 5 to 6 years, the data will, of course, remain accessible from NCIC.

7. Finally, NCIC is about halfway through the process of acquiring the Defense Mapping Agency's digital terrain tapes. The tapes, derived from the 1:250,000-scale topographic map series, are available for public distribution through NCIC.

Data Acquisition Notes - or information sought and found

Since NCIC was set up with the intention that it become a genuinely national cartographic information center, accessible to and accessed by one and all, we are particularly pleased to initiate here the first of a series of quarterly reports covering NCIC's dealings with the cartographic community.

Following the April 1974 announcement of our official existence, NCIC and the National Geodetic Survey began a comprehensive period of personnel exchanges. The free flow of ideas that followed resulted in an interagency agreement, signed on June 1974 outlining a transfer of geodetic control information from the U.S. Geological Survey to the National Geodetic Survey.

In August of last year we held our first large-scale orientation conference to introduce NCIC to Federal agencies that hold or use cartographic data. Introductions to NCIC's facilities and functions were duly made, assorted pertinent questions debated and individual agency contacts established.

The final minutes of that conference have just arrived from the printer and will be distributed shortly. If your agency doesn't receive a copy in the next two or three weeks, please contact us.

Meeting and data acquisition schedules were recently finalized and agency visits are well underway. Since last December orientation meetings have been held with EPA, NASA, ASCS, SCS, Corps of Engineers-North Central Division, NOS, USGS, the Bonneville Power Administration, and DMA. As a result, we have discussed and are preparing for review, general management agreements that will spell out our mutual intent to exchange cartographic information.

In the next few months, visits are planned to the Corps of Engineers Headquarters, TVA, and other agencies to start negotiations on similar data transference programs. If your agency deals in cartographic matters and hasn't been called upon by us yet, rest assured we will will arrive on your doorstep shortly.

Tentatively planned for the coming summer months is a conference for State and private organizations. At that time, we hope to formally introduce ourselves and to hold discussions on possible data exchanges and the specific applications of high-altitude aerial photography in State and local land-use planning.

Contacts were made with several private aerial surveying firms last fall to determine the amount of high-altitude aerial photography currently available in the United States. In the next few months we plan to invite these organizations to code their photography for inclusion in our aerial photography summary record system.

Future Plans - or where do we go from here

During 1975 one of our major areas of concentration will be on the further inventorying and development of summary records of major Federal cartographic data holdings. In this area we plan to give top priority to high-altitude aerial photography and to data that is badly needed but not now readily available.

Another major thrust will be on reorganizing and strengthening the User Services Section of NCIC. An effective routing and control system, as mentioned earlier, is being adopted to keep track of orders and inquiries and to insure that replies don't become (a.) trampled underfoot or (b.) shipped out six months late.

Finally, while still in the conceptual stage, there are plans afoot for an expansion of the services offered by the Geological Survey's Mapping

Centers. In later issues we will run descriptions of the new services.

Historical and Current Topographic Map Microfilming Program

We have recently begun a program of converting the Geological Survey's Topographic Map series into 35mm black and white microfilm form. When the project is completed, map quadrangles will be available as duplicates of the camera original for a small fee to cover duplicating and handling costs. Coding is alphabetical by quadrangle within the State with a 100-foot roll of film containing approximately 500 quadrangle images. The film is supplied in rolls to allow the user to easily prepare the microform (roll, aperture card, or microfiche) he prefers.

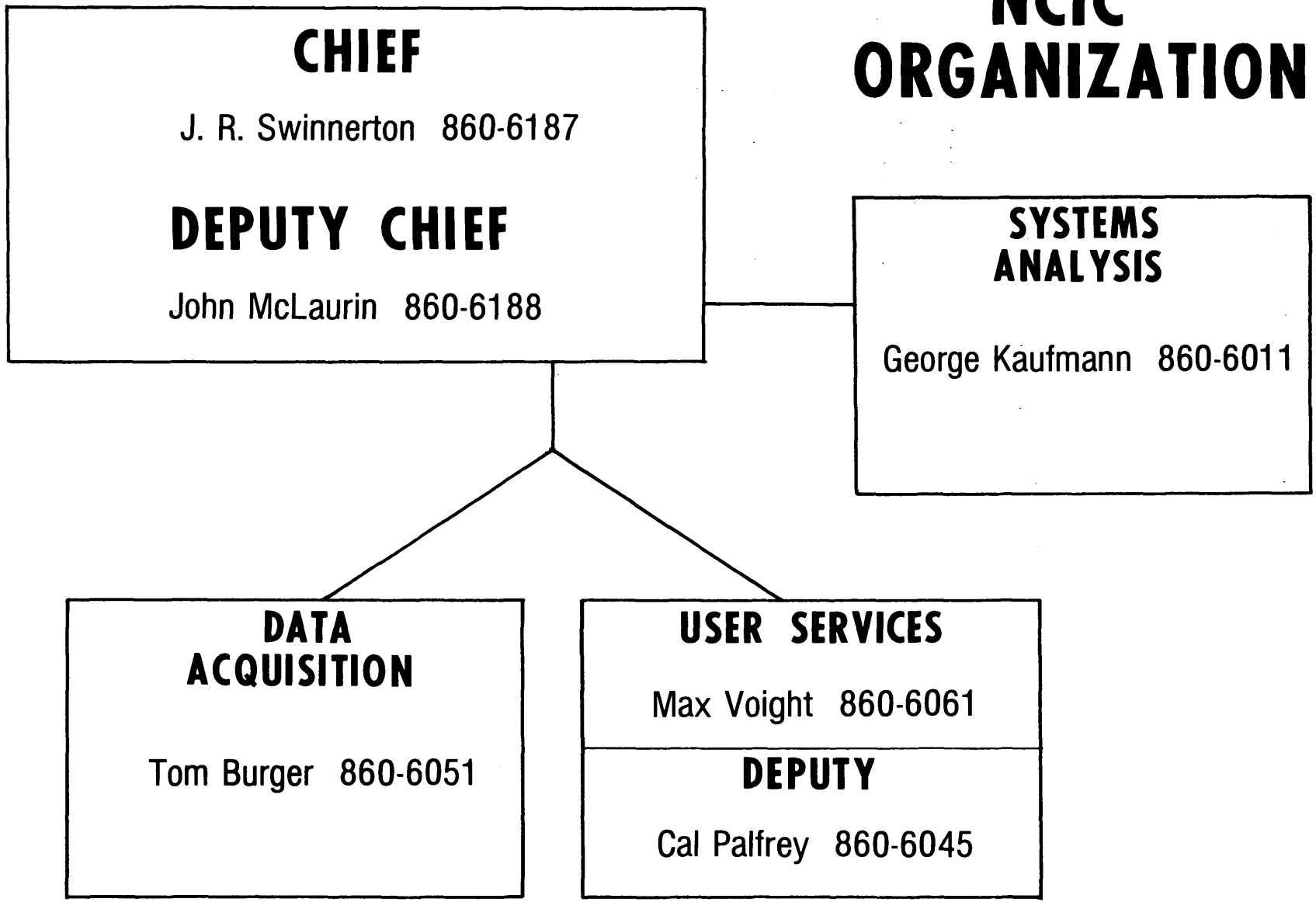
Quadrangles supplied in a microfilm format have obvious advantages for the State and local government planners, engineers and librarians who need the convenience of a compressed form of statewide coverage at bargain prices. The size problem can, of course, be solved by one of the many inexpensive viewers (with or without printout capability) currently on the market.

For a microfilm library of the most recently publicized quadrangles covering a State, the current file should be ordered. Historians and archivists may want to look at an area as it developed through the years. For these people, a historical file of the old maps provided, used, and replaced by later maps is available.

The microfilming program started last December and is expected to be completed in the spring of 1976. The following States have been filmed already: Connecticut, Delaware, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, Rhode Island, and Virginia.

More detailed information about this program is available from the Office of the Chief. (See first page for address.)

NCIC ORGANIZATION



ADDRESS INDEX (by articles)

Earth Resources Observation Satellite Data Center

EROS Data Center
Sioux Falls
South Dakota
57198

U.S. Geological Survey Mapping Centers (Field)

Eastern Mapping Center
U.S. Geological Survey
567 National Center
12201 Sunrise Valley Drive
Reston, Virginia 22092

Mid-Continent Mapping Center
U.S. Geological Survey
USGS Building
1400 Independence Road
Rolla, Missouri 65401

Rocky Mountain Mapping Center
U.S. Geological Survey
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U.S. Geological Survey
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Menlo Park, California 94025

National Geodetic Survey

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(Geodetic Control Information)

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Rockville, Md. 20520