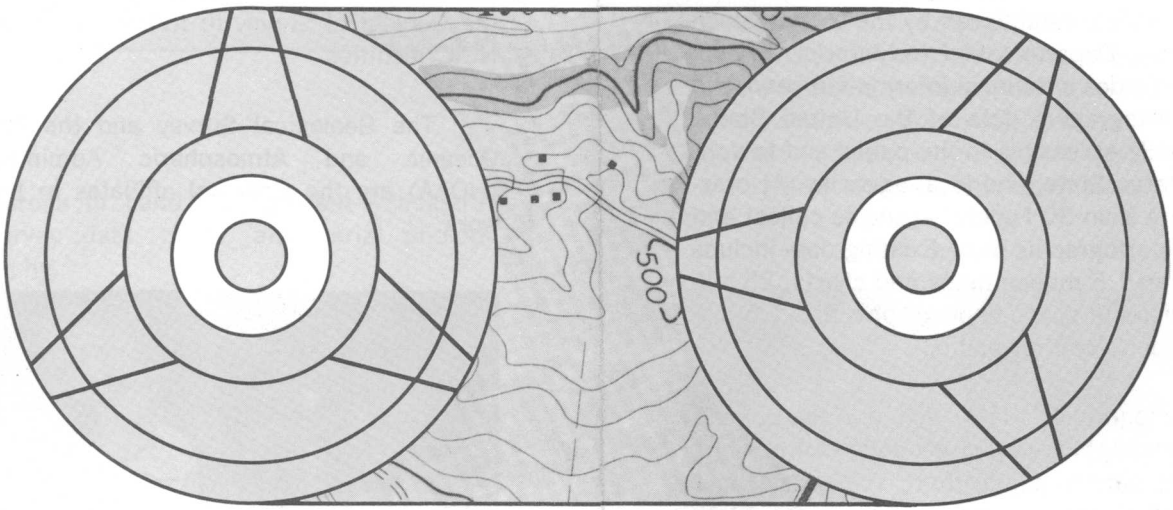
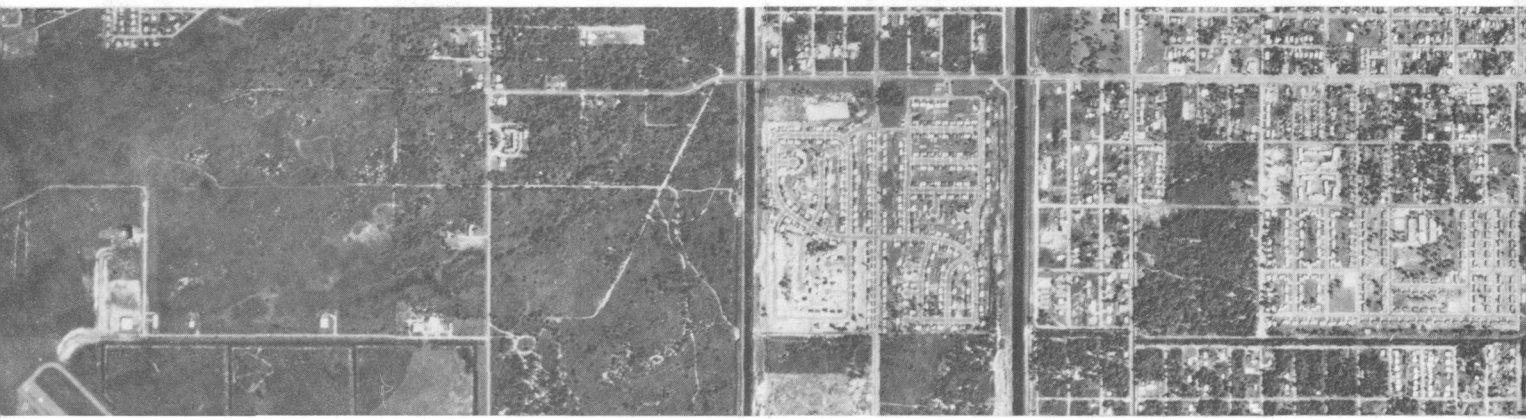
As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

Thomas S. Kleppe, Secretary
U. S. Department of the Interior

Vincent E. McKelvey, Director
U. S. Geological Survey

National Cartographic Information Center (NCIC)





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U. S. Department of the Interior/Geological Survey
USGS: INF-74-47

National Cartographic Information Center (NCIC)

What is NCIC?

The National Cartographic Information Center (NCIC), established by the U.S. Geological Survey, Department of the Interior, in July 1974, provides a national information service to make cartographic data of the United States more easily accessible to the public and to various Federal, State, and local agencies. At present, more than 30 Federal agencies collect and prepare cartographic data. Existing data include more than 1.5 million maps and charts, 25 million aerial and space photographs, and 1.5 million geodetic control points.

Cartographic data include maps and charts, aerial photography, geodetic control data, and map data in digital form. These data have innumerable applications relating to the Earth and its resources including energy resource exploration and development, the construction of highways and other public works, the classification and mapping of vegetation, land-use planning and protection of the environment. NCIC provides a comprehensive system to make these data more readily available to users. NCIC uses the latest techniques of microphotography and computer technology to reduce the vast amount of information to a manageable size and to provide a focal point for information on data produced and distributed by many Federal sources. NCIC also provides information on some Federal agencies' plans for future data collection — to help eliminate duplication of effort.

Who is cooperating with NCIC?

NCIC does not obtain all of the cartographic data from present holders; rather it collects and organizes descriptive information about the data, tells where they are located, ensures their availability, and provides ordering assistance. Existing government and private data centers will continue to hold and distribute cartographic data. Some of these centers will also provide for local users direct access to "NCIC" information through their existing public service facilities. Thus many government and private organizations are participating with the Geological Survey in forming a network of NCIC facilities.

The Geological Survey and the National Oceanic and Atmospheric Administration (NOAA) are the principal affiliates in the network.

NCIC provides professional assistance in selecting and identifying the best cartographic data to solve a problem.

Cartographic Data		
Who has produced the data	What kinds of data	How much
30 Federal agencies States Counties Municipalities Private companies	Maps Charts Aerial imagery Space imagery Geodetic control Digital data Cartographic publications Other survey data	Over 1.5 million maps and charts. 25,000 new per year. Over 20 million frames of aerial photos. 1 million per year. Over 1.5 million survey control points.

NCIC

Focal Point For Information

Users

Land use planners
Energy investigators
Scientists
Natural resource managers
Highway & public works planners
Transportation specialists
Environmentalists
Land developers
Recreation planners
Plant locators
General public
Agriculturalists

Geological Survey through:

The Topographic Division

houses, funds, and manages NCIC.

maintains and distributes topographic, orthophoto, and land-use map compilation materials; digital map data; and other closely related cartographic data.

operates a system for indexing and cataloging maps and charts in cooperation with the Geography and Map Division, Library of Congress.

The Publications Division

distributes printed topographic, hydrologic, geologic, and other maps published by the Survey.

The EROS (Earth Resource Observation Systems) Data Center

stores, reproduces, and disseminates aerial and space imagery and electronic data originally acquired by the National Aeronautics and Space Administration (NASA), various Bureaus of the Department of Interior, and some other Federal agencies.

operates and maintains an automated information and ordering system for aerial photography and space imagery and provides selected users with direct telecommunication access to the system.

The National Oceanic and Atmospheric Administration through the **National Geodetic Survey**

operates and maintains the automated National Geodetic Control File.

evaluates, classifies, stores, and disseminates geodetic data and provides an indexing service for geodetic data.

Some of the other cooperating Federal agencies with major cartographic holdings are:

Agricultural Stabilization and Conservation Service—aerial photography.

Bureau of Land Management—cadastral survey data, maps, and aerial photography.

Cartographic Division, National Archives and Records Service—historic maps, charts, cadastral plats, aerial photography, and other related cartographic data.

Forest Service—maps, aerial photography, and survey data.

Geography and Map Division, Library of Congress—reference library of current and historic maps, charts, and related literature.

National Ocean Survey, National Oceanic and Atmospheric Administration—nautical and aeronautical charts, maps, and aerial photography.

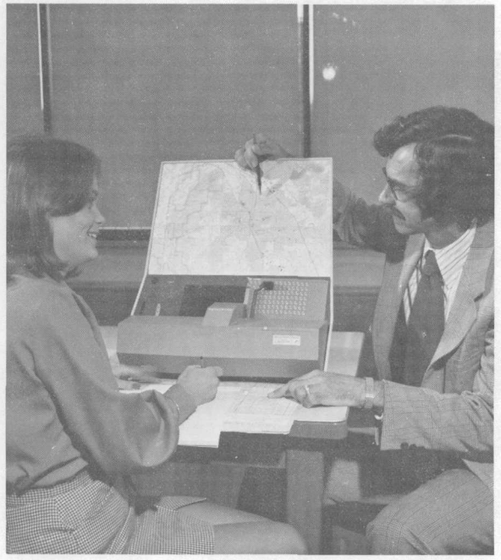
Soil Conservation Service—soil survey and other maps and aerial photography.

Tennessee Valley Authority—aerial photography, maps, and survey data.

Without the close cooperation of these and many other organizations in the Federal, State, and commercial cartographic communities, the "NCIC" idea could not be realized.

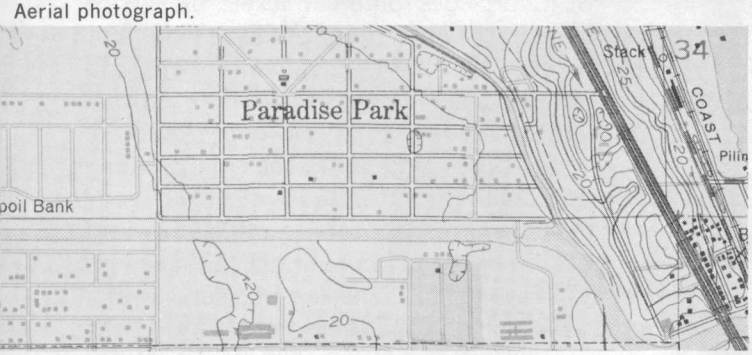
What services does NCIC provide?

NCIC provides different levels of service for the various types of cartographic data. For general purpose data—topographic maps and aerial photographs—the objective is to provide complete service, including the identification of specific products and assistance in ordering these products. On the other hand, only general information and referral service will be provided for special purpose cartographic data—geologic maps and land plats. The level of service provided will change over time depending on the agencies' willingness to put data into the NCIC Information Systems and NCIC's capacity to inventory and add detailed information on these data.



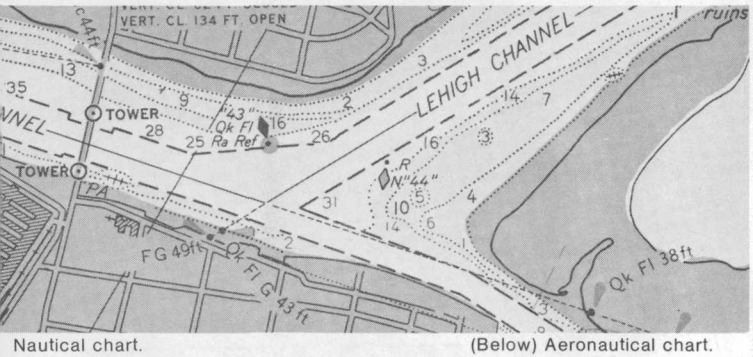
Through microfilm, thousands of maps can be easily inspected.

Aerial photograph.



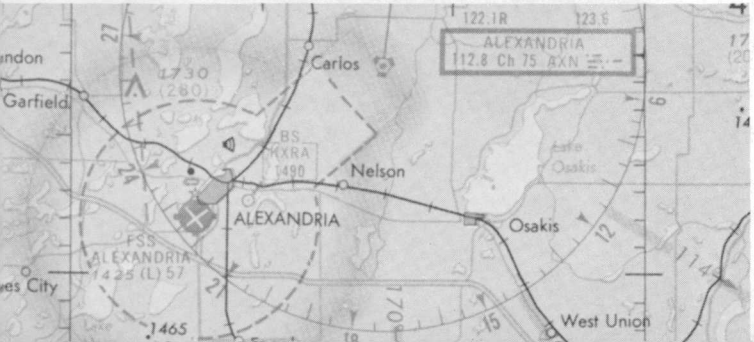
Topographic map.

Topographic-bathymetric orthophotoquad.



Nautical chart.

(Below) Aeronautical chart.



What types of cartographic data are included?

Multi-use maps and charts including:

- Aeronautical charts
- Bathymetric maps
- City maps
- Extraterrestrial maps
- Flood plain maps
- Forest maps
- Geologic maps
- Highway maps
- Land-use maps
- Map and chart feature separates
- Nautical charts
- Orthophotomaps and orthophotoquads
- River surveys and dam site maps
- Slope maps
- Soil maps
- Topographic maps
- United States maps
- World maps

Survey data including:

- First and second order control from any source*
- Third order control from any source that is useful*
- Selected fourth order control
- Photogrammetrically derived control
- Selected private control
- Land plats
- Census subdivisions

Aerial and space imagery from Federal, State, and private sources including:

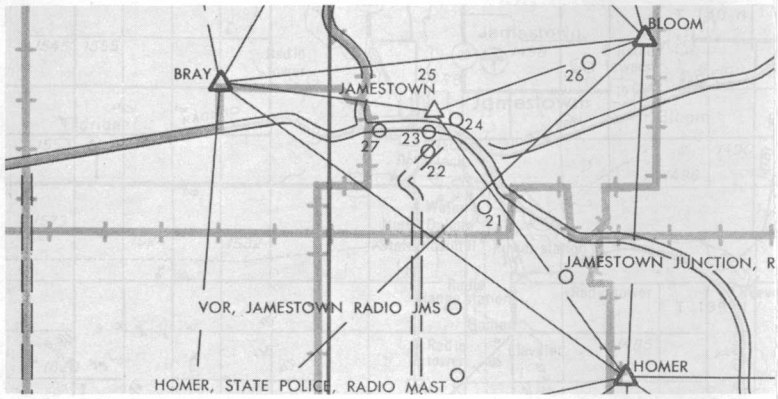
- Photographs
- Satellite computer compatible tapes
- Photomosaics
- Other remote sensor data

Closely related data such as:

- Cartographic educational materials, atlases, gazetteers, and other related literature
- Digital data representing detail on maps and charts
- Geographic names

* Most of these data will be held and distributed by the National Geodetic Survey Information Center (NGSIC) of NOAA. The National Cartographic Information Center will provide additional access to these data.

Land-use map.



Geodetic control diagram.

Geologic map.

(Below) Orthophotoquad.

What are the present status and future plans of NCIC?

The initial emphasis of NCIC has been on providing better information on Federal cartographic data. In the future information will also be collected on State and local agency and private data. The goal is to provide information on the most useful U.S. cartographic data—existing and planned.

As NCIC is fully implemented it will also be able to accept orders for data produced and distributed by other organizations. Ordering is presently limited primarily to USGS data, but agreements are being negotiated with other agencies so that NCIC can accept orders for their data. The goal is to provide a one-stop information and ordering service for data users who do not know where to obtain the data.

Where can more information be obtained?

Write to the National Cartographic Information Center, U.S. Geological Survey, 507 National Center, Reston, Virginia 22092, or call 703-860-6045.

CRT terminals, coupled to automated data banks, will enable immediate access to millions of maps and aerial photographs.