

WISCONSIN UNIFIED AERIAL PHOTOGRAPHY PROGRAM

(see Wisconsin Mapping Bulletin, v. 4, no. 1, p. 1)

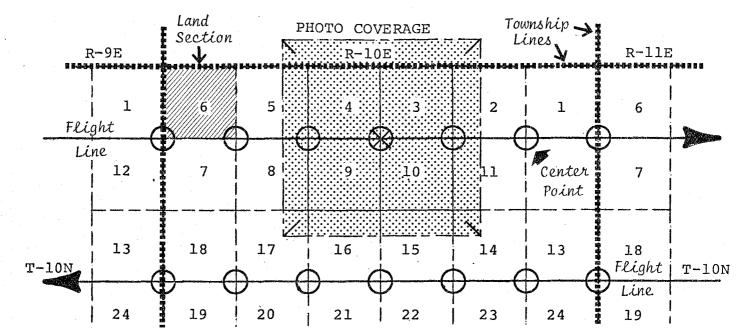
On Friday, March 31, 1978, the annual budget review bill was passed by the Legislature and sent to the Governor for his action. In this bill was the provision for acquisition of $\underline{\text{statewide}}$ aerial photography during 1978 and 1979.

Since the Governor had previously endorsed the policy of acquiring this coverage, approval is anticipated and contracts are being issued for commercial bids on the aerial photography.

There has been one change to our previous report; color infrared transparencies will NOT be part of the contract. The requirement as now stated is for black-and-white infrared photography at a scale of 1:20,000 (1"=1667 feet) and enlargements to 1"= 400 feet centered on four land sections as indicated below.

As actual coverage is acquired and available for purchase, it will be announced in this bulletin.

FLIGHT LINE LAYOUT



GEODETIC FILES-STATE CARTOGRAPHER'S OFFICE

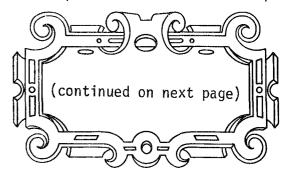
Recently our office has received several inquiries regarding the extent of our file holdings of horizontal control and vertical leveling data. Additionally, questions have arisen about our policy on duplicating information. We would like to take this opportunity to list our holdings and restate our policy.

ON FILE

It is important to state that the geodetic information on file pertains <u>ONLY</u> to Wisconsin.

- 1. The office has a complete file of all National Geodetic Survey (formerly Coast and Geodetic Survey) 1st- and 2nd-order horizontal control. The office automatically receives all readjusted or new control. This control is indexed by 30-minute quadrangles across the state. A set of master indexes at 1:250,000 is also on file.
- a. Unadjusted control (yellow sheets) for the new 1st-order line across northern Wisconsin is also on file. The line runs from Breckenridge, Minnesota to St. Ignace, Michigan.
- 2. The office has a complete file of all National Geodetic Survey (NGS) 1st- and 2nd-order benchmark leveling. Again we are on an automatic distribution list. This file has been partially converted by NGS from the old statewide numbering system to the 30-minute quadrangle index. NGS has an ongoing program for restoring/replacing these levelings.
- a. The office has on file a new leveling line on the Lake Michigan and Green Bay shoreline from Green Bay to Cudahy. However, it is currently unadjusted (yellow sheets).
- b. Also on file are all National Ocean Survey/Lake Survey Center harbor benchmarks for the Lake Michigan, Green Bay and Lake Superior harbors.

- 3. The office has a complete file on all U.S. Geological Survey 3rd-order horizontal control and 3rd-order benchmark leveling lines. These are indexed by the 15-minute quad name (even if such a 15-minute map never existed). The office is on automatic distribution for all U.S. Geological Survey control as it occurs in areas of new 7½-minute topographic map production. This is the only area where U.S.G.S. performs surveys. They have no program of maintenance or restoration. The office is keeping all historical files of U.S.G.S. data as new information is received.
- 4. The office has a partial file of Corps of Engineers-Mississippi River Commission (MRC) historical survey data. Between our office's holdings and that of the Geodetic Section, Engineering Services of the Department of Transportation, total MRC coverage is possible.
- 5. The office has copies of profile sheets from abandoned railroad lines of the Chicago, Milwaukee, St. Paul and Pacific Railroad and the Burlington Northern Railroad. The copies were supplied gratis by these railroads. The office budget does not currently allow for the acquisition charges of other railroads for their information.
- 6. The office holds a current listing of resurveys performed by the Bureau of Land Management, Department of Interior. However, the actual documentation is available from the Commissioner of Public Lands, Trust Lands and Investments Division. The Commissioner's Office also holds microfilmed records of the original Public Land Survey plat maps and surveyors' notes for low cost reproduction to interested parties.



CURRENT COLLECTION ACTIVITIES

With regard to the total scope of geodetic survey information, the office operates under the following policy:

- 1. To collect and redistribute to state users such federal geodetic information which is not readily available from some other state government source.
- 2. To maintain indexes and lists of sources of documentation of all other types of geodetic information for answering and directing inquiries, and
- 3. To maintain a historical file of geodetic information from sources which have discontinued such activity.

The office is currently collecting geodetic data from the following sources:

1. Federal survey data occurring in localized areas, from the Corps of Engineers, the Bureaus of Land Management

and Indian Affairs and the National Ocean Survey.

2. Collecting information on Public Land Survey section corner retracement performed by local/county surveyors and the state departments; indexes of locations only.

POLICY ON DISTRIBUTION OF INFORMATION

The following policy is under current University budgetary controls and is subject to change:

The office will distribute copies of geodetic information and/or indexes free-of-charge to Wisconsin residents upon request.

The office suggests that requests be for specific areas of restricted size to hold duplication costs to a minimum. Requests for coverage of large areas (e.g., a county) normally will only be filled for an official office, such as a county surveyor.

GEODETIC NEWSSHEET

A newsletter is now available from the National Geodetic Survey, National Oceanic and Atmospheric Administration. The <u>noaa geodetic newssheet</u> will bridge the communication gap between the NGS and the users of its services. Besides the special geodetic articles, regular features of the newssheet will include: availability of and procedures for ordering NGS's geodetic data products; status reports of ongoing or recently completed field projects by the National Geodetic Survey; information on new NOAA publications pertaining to geodesy; and notices of meetings and workshops related to geodesy and land surveying to be sponsored or attended by NOAA representatives.

Initial recipients are the present 2,600 subscribers to the NOAA Geodetic Control Data Automatic Mailing List Agreement (with which this office participates). Persons not on this list should contact the National Geodetic Information Center about receiving the newssheet. Items of interest to Wisconsinites will be reported in the Mapping Bulletin.

NOAA, National Ocean Survey National Geodetic Survey National Geodetic Information Center Rockville, MD 20852 (301) 443-8631

🕰 😂 U. S. G. S. POLICY ON 15' QUADRANGLES 😂 😂

The State Cartographer's Office questioned the U.S. Geological Survey on their policy on the continuance and reprinting of their 15-minute quadrangle topographic map coverage (1:62,500 scale). The following is a synopsis of their statement:

- a. Where later date 7½ topographic maps (1:24,000 scale) have been published in the 15' map area, the 15' edition will be continued on the index and available for sale as long as printed copies are available. Once the stock of available copy is depleted, the map will be discontinued and declared historical.
- b. Where the $7\frac{1}{2}$ ' and the 15' have the same date or, in a few rare cases where the 15' is of a later date than the $7\frac{1}{2}$ ', the 15' quad will be continued. If the demand is great enough, it will be reprinted. However, once the $7\frac{1}{2}$ ' is revised to a later date than the 15', the map then falls into the historical category, paragraph "a" above.
- c. The 1:48,000-scale planimetric (non-contour) 15' version will be automatically dropped from distribution on publication of the new 7½' covering the area.

★ ★ LANDSAT 3 IN ORBIT ★ ★

On March 5, 1978, LANDSAT 3 was placed in earth orbit by the National Aeronautics and Space Administration (NASA) and went into operation recording the earth's surface with its Multi-Spectral Scanner (MSS). At that time the original LANDSAT 1 was turned off. In conjunction with the still operating LANDSAT 2, the two satellites will continue to transmit coverage of any portion of the United States every nine days. The Return Beam Vidicon (RBV) or television scanner of LANDSAT 3 is a different configuration from the previous LANDSATs' and is currently being tested by NASA. The LANDSAT 3 MSS is the same as previous scanners with the addition of a fifth band, band 8 (10.4 to 12.6 micrometers) to collect data on thermal emissions during non-daylight hours.

NASA has recently established regional centers to assist local and state governments in satellite remote sensing technology. Wisconsin is in the Eastern Regional Remote Sensing Applications Center (ERRSAC), Code 902.1, Goddard Space Flight Center, Greenbelt, Maryland 20771 (800-638-0748).

☆ ☆ ☆ JANUARY BULLETIN UPDATES ☆ ☆

WETLANDS MAPPING (page 2) D.N.R. Wetlands Mapping: The Legislature has passed this amendment and it is now awaiting the Governor's signature. When enacted it will require the Department of Natural Resources to undertake a statewide mapping of wetlands. The amendment as passed requires local input into the mapping process.

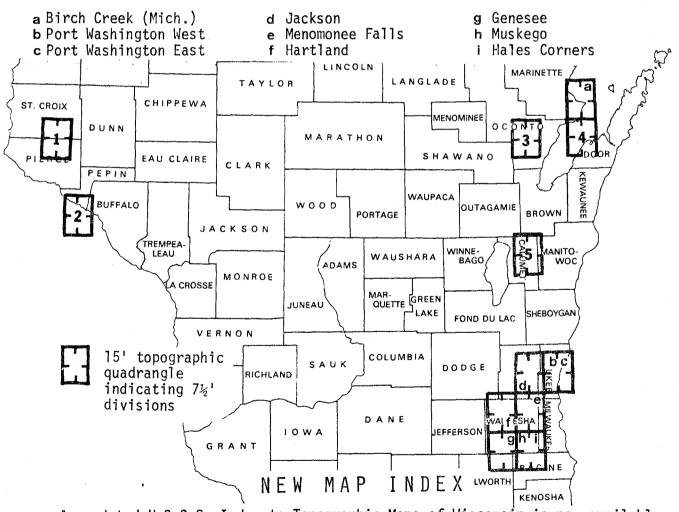
A.S.C.S. PHOTOGRAPHY PLANS (page 3) On March 17, 1978 information was received from the Salt Lake City, Utah contracting office of A.S.C.S. that the contracts for the photography were announced and bids were being accepted. The photography will be panchromatic black-and-white at 1:40,000 scale (1"=3333 feet). The counties are: Clark, Columbia, Florence, Forest, Marathon, Marinette, Oneida, Portage, Richland, Rock, Sauk, Sheboygan, Vilas and Wood.

NEW PRODUCTION FROM U.S. GEOLOGICAL SURVEY

These newly published 7½' topographic quadrangle maps (1:24,000) are listed by their location on the superseded 15' topographic map of the area. They are available from the Wisconsin Geological Survey, 1815 University Ave., Madison, Wisconsin 53706 (608) 263-7389. Topographic quadrangles are \$1.50 each.

1 BALDWIN 15' TOPO NE坛 Baldwin East '74 NW坛 Baldwin West '74 SW坛 Martell '74 SE坛 El Paso '74	2 WABASHA 15' TOPO NE4 Wabasha North '74 NW4 Pepin '74 SW4 None SE4 None	3 OCONTO FALLS 15'TOPO NE社 Lena '74 NW社 Oconto Falls North '74 SW社 Oconto Falls South '74 SE社 Abrams '74
4 LITTLE STURGEON 15' TOPO NE컵 None NW컵 Peshtigo Harbor '74 SW컵 None SE컵 None	5 CHILTON 15' TOPO NE4 Brillion '74 NW4 Hilbert '74 SW4 Chilton '74 SE4 Potter '74	Order 7½' quads by name, NOT by the index number or letter used here for location.

1976 PHOTOREVISED 7월' TOPOGRAPHIC QUADS



An updated U.S.G.S. <u>Index to Topographic Maps of Wisconsin</u> is now available. Dated June 1977, it lists 864 quadrangles but requires an additional 57 annotations to make it current. These can be obtained from these bulletins or from the list the Wisconsin Geological Survey provides with the indexes they distribute. For a free copy of the index (now in brown instead of green) contact: Map Sales, Wisconsin Geological Survey, 1815 University Ave., Madison, WI 53706 (608) 263-7389.

* WISCONSIN MAP SOCIETY *

The second annual meeting of the Wisconsin Map Society will be June 3. It will begin with a tour at 10:00 a.m. of the Milwaukee Public Library's map and chart collection. After lunch there will be a business meeting at the Milwaukee County War Memorial Building. This will be followed by a visit to "Milwaukee Illustrated: Panoramic and Bird's-Eye Views of a Midwestern Metropolis, 1844-1908", an exhibition at the Milwaukee Art Center (located in the War Memorial). For details contact Ms. Virginia Schwartz, Milwaukee Public Library, 814 West Wisconsin Ave., Milwaukee, WI 53233.

* MILWAUKEE ILLUSTRATED *

Panoramic and Bird's-Eye Views of a Midwestern Metropolis, 1844-1908

An exhibition will be held at the Milwaukee Art Center, April 14 - June 18, 1978 featuring 50 rare engravings and lithographs, ranging in size from a few square inches to 13 square feet. All illustrate the city of Milwaukee in various stages of its early development.

Wisconsin was a principal center for American view production during the last third of the 19th century, and works by many nationally important artists, printers and publishers will be on display. Book and periodical illustrations are included, along with the more spectacular independently published views. Several of these items are the only surviving copies.

An illustrated, annotated catalog will be available. Telephone (414) 271-9508 for information. The exhibition will be presented at the State Historical Society of Wisconsin, Madison, from July 3 to August 27.

* A.C.S.M. - A.S.P CONVENTION *

The fall national meeting of the American Congress on Surveying and Mapping and the American Society of Photogrammetry will be at Albuquerque, New Mexico, October 16-20, 1978.

* NINTH INTERNATIONAL CARTOGRAPHIC CONFERENCE * July 26 - August 2

The program and the exhibits will focus on automation in cartography, map perception and design, cartography in the developing nations, remote sensing, and ocean and coastal cartography. It will be held at the University of Maryland, College Park, Maryland. For additional information write: Chairman, Organizing Committee, IX International Cartographic Conference, 210 Little Falls St., Falls Church, VA 22046.

* CONFERENCE ON APPLIED GEOGRAPHY *

The Dept. of Geography at State University of New York at Binghamton, N.Y., is planning a conference to be held at SUNY-Binghampton in May 1978. The conference is scheduled for two days and will include a session on "Applied Cartography." For further information contact Dr. Shin-Yi Hsu, Dept. of Geography, SUNY-Binghampton, N.Y. 13901.

*** 50 YEARS OF GEOGRAPHY ***

The University of Wisconsin-Madison Department of Geography will celebrate its fiftieth anniversary May 5-6. Scheduled events include the dedication of a plaque at Science Hall; a reception given by resident faculty; symposia on the physical environment, space and environmental perception, and diffusion; and a banquet. For more information contact Prof. Clarence Olmstead, U.W. Geography Dept., 324 Science Hall, Madison, WI 53706, (608) 262-0505.

-----WISCONSIN COASTAL ATLAS 1977----

The printing of the Wisconsin Coastal Atlas - 1977 is nearing completion and copies are expected to be available for distribution by the end of April. This high quality atlas is in a loose leaf format. It consists of 78 maps and 12 air photos plus an introductory text. It was produced under the auspices of the Wisconsin Coastal Management Program, Dept. of Administration, with significant support from the regional planning commissions and the counties adjacent to Lakes Michigan and Superior. Cartography was by the University of Wisconsin - Cartographic Laboratory - Madison.

The format of the atlas divides the Lake Michigan, Green Bay and Lake Superior shorelines into 12 areas which are portrayed on 8½ by 11 inch pages. For each area, except the Apostle Islands, the following are portrayed at 1:250,000 (1 inch = approximately 4 miles):

Base Map of Area LANDSAT imagery Land Use

Land Ownership Zoning Natural Area/Historic Sites Fish and Wildlife Habitat Erosion Hazards

The atlas was produced with financial assistance provided by a grant under the Coastal Zone Management Act of 1972, National Oceanic and Atmospheric Administration, U.S. Department of Commerce. For a free copy of the atlas contact:

> The Wisconsin Coastal Management Program B - 130, 1 West Wilson Street (608)266-8952 Madison, WI 53702

D. N. R. PRODUCES SHORELINE USE

The Wisconsin Department of Natural Resources has recently published a set of 5 maps covering the state which depict 4 categories of shoreline use for all streams, rivers and lakes. The 4 categories are Urban (high intensity), Low to Medium Intensity (nonagricultural), Agricultural, and Undeveloped. The maps are at scale 1:250,000 (1 inch = approximately 4 miles) and are printed in 5 colors. The usage information was recorded by digital cartographic techniques from the interpretation of aerial photographs. Final cartographic enhancement was performed by the University of Wisconsin-Madison Cartographic Laboratory. An initial distribution has been made to government levels and university and city libraries. A follow-up set of maps depicting shoreline ownership is planned by the D.N.R. Anyone interested in obtaining copies should contact:

> Mr. Doug King, Bureau of Planning D.N.R., 4610 University Avenue Madison, WI 53705 (608) 266-0053

1978-1979 D.O.T. HIGHWAY

The State Cartographer's Office congratulates the Department of Transportation on their new state highway map for 1978-79. Among the improvements over the 1976 edition are: an increased number of enlarged city map insets (24 for 1978-79 versus 15 for 1976). kilometer distances between cities, and the printing of all important text, and information notes on a white background for easier readability.



OTHER NEW MAPS



PRELIMINARY AEROMAGNETIC MAP COVERING MOST OF THE EXPOSED PRECAMBRIAN TERRANE IN WISCONSIN compiled by Isidore Zietz, J.H. Karl, and M.E. Ostrom. 1977. U. S. Geological Survey, Misc. Field Studies Map MF-888. Scale 1:250,000 (1 inch equals about 4 miles) 75ϕ , available from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202; or \$1.50 from the Wisconsin Geological Survey, Map Sales, 1815 University Ave., Madison, WI 53706.

BOUGUER GRAVITY ANOMALY MAP OF LAKE SUPERIOR by R.J. Wold and J.M. Berkson. 1977. U.S. Geological Survey, Misc. Field Studies Map MF-884. Scale 1:500,000 (1 inch equals about 8 miles) 75c, available only from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

LAND USE MAPS. 1978. Large-scale maps identifying existing land use in Douglas and Iron Counties have been prepared and are ready for distribution from the Northwest Regional Planning Commission. Maps are also available for Ashland, Bayfield, Burnett, Sawyer, Price, Washburn, Rusk and Taylor Counties.

The maps are color-coded and are scaled at one inch equals two miles. They identify seasonal and year-round homes and commercial, industrial and public buildings. Aerial photos were used in mapping agricultural and forest lands. Contact: Northwest Regional Planning Commission, 302 Walnut Street, Spooner, WI 54801 (715) 635-2197.

NORTHEASTERN WISCONSIN ROAD MAP. The Milwaukee Map Service has recently produced a new road map for northeastern Wisconsin to accompany their previously released map on southeastern Wisconsin. The Northeastern Wisconsin map is of 12 counties, scale approximately 7/8 inch= 3 miles and printed in four colors. In addition to the map, the folder contains a booklet of forty pages which lists the names of 6,000 roads and tourist interest items such as trout streams, golf courses, ski areas, and public hunting grounds. The map retails for \$3.00 and can be purchased from the Milwaukee Map Service, Inc., 4519 W. North Ave., Milwaukee, WI 53208 (414) 445-7361.

THE UNITED STATES COAST PILOT 6 has been published as the 1978 edition of the United States Great Lakes Pilot by the National Oceanic and Atmospheric Administration (NOAA). The 600-plus page volume, known as the "Bible of the Great Lakes mariner", is published annually by NOAA's National Ocean Survey. The United States Coast Pilot 6 supplements the navigation information shown on standard nautical charts by furnishing details that cannot be shown graphically on marine charts. For more information contact: NOAA, National Ocean Survey, Rockville, MD 20852.

THE WISCONSIN MAPPING BULLETIN IS DISTRIBUTED FREE OF CHARGE ON REQUEST. ARTICLES MAY BE REPRODUCED WITH ACKNOWLEDGEMENT GIVEN. ANY COMMENTS SHOULD BE SENT TO THE STATE CARTOGRAPHER'S OFFICE, 144 SCIENCE HALL, UNIVERSITY OF WISCONSIN, MADISON, WI 53706 (608) 262-3065 ART ZIEGLER, STATE CARTOGRAPHER C. REINHARD, EDITOR