

# WISCONSIN MAPPING BULLETIN

## Volume 8 No. 1 January 1982

A QUARTERLY NEWSLETTER FOCUSED ON  
CARTOGRAPHIC ACTIVITIES IN WISCONSIN

Wisconsin State Cartographer's Office

Established 1973

144 Science Hall, UW Madison, WI 53706

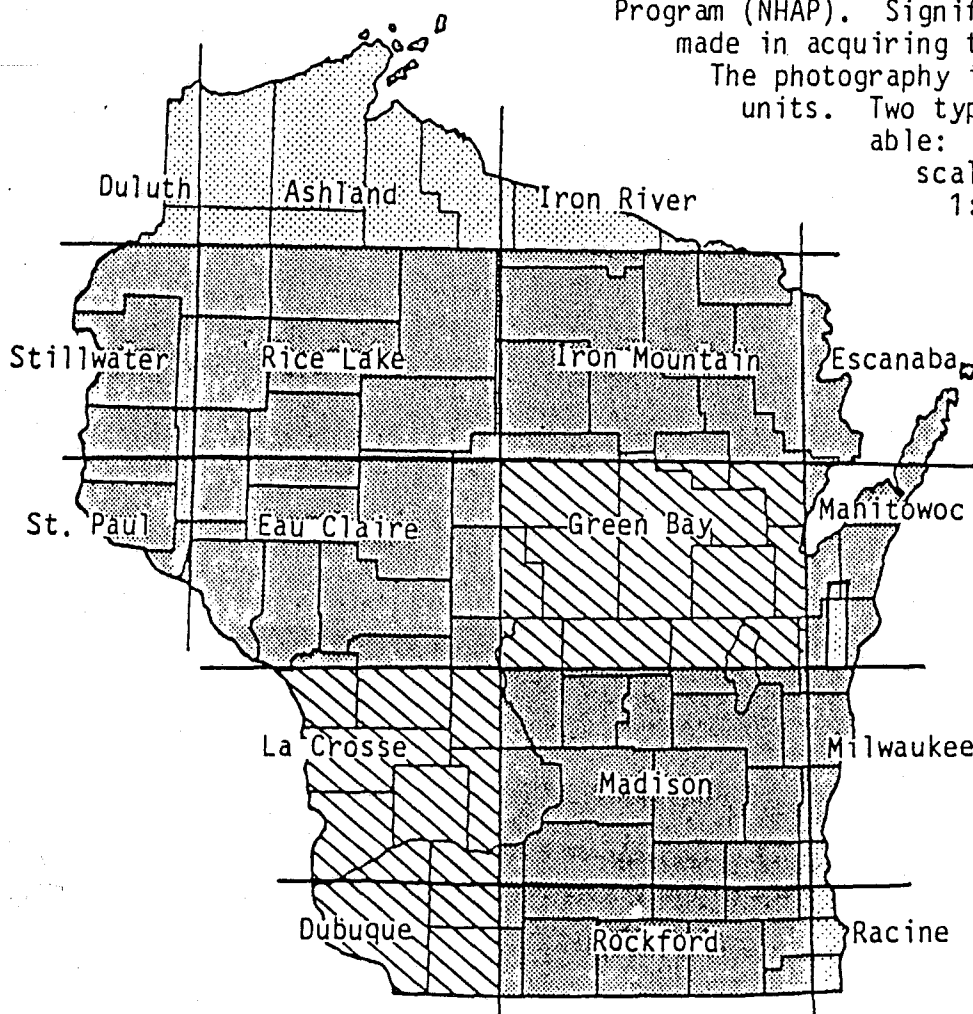
(608) 262-3065

Art Ziegler  
State Cartographer

Christine Reinhard  
Editor


### HIGH - ALTITUDE AIR PHOTO PROGRAM

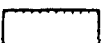
This graphic indicates the acquisition status of the National High-Altitude Aerial Photographic Program (NHAP). Significant progress has been made in acquiring this coverage over Wisconsin. The photography is acquired by  $7\frac{1}{2}'$  quadrangle units. Two types of photography are available: color infrared at 1:56,000 scale and black-and-white at 1:80,000 scale.




As an affiliate of the National Cartographic Information Center, this Office receives microfiche indexes of the NHAP. We can provide frame numbers for the aerial photography where the microfiche is available.

(ref. v. 7, no. 2;  
v. 6, no. 4)

 available as of  
Nov. 1, 1981

 still scheduled  
for 1981

 scheduled for  
1982

Racine name of 1:250,000  
scale map sheet

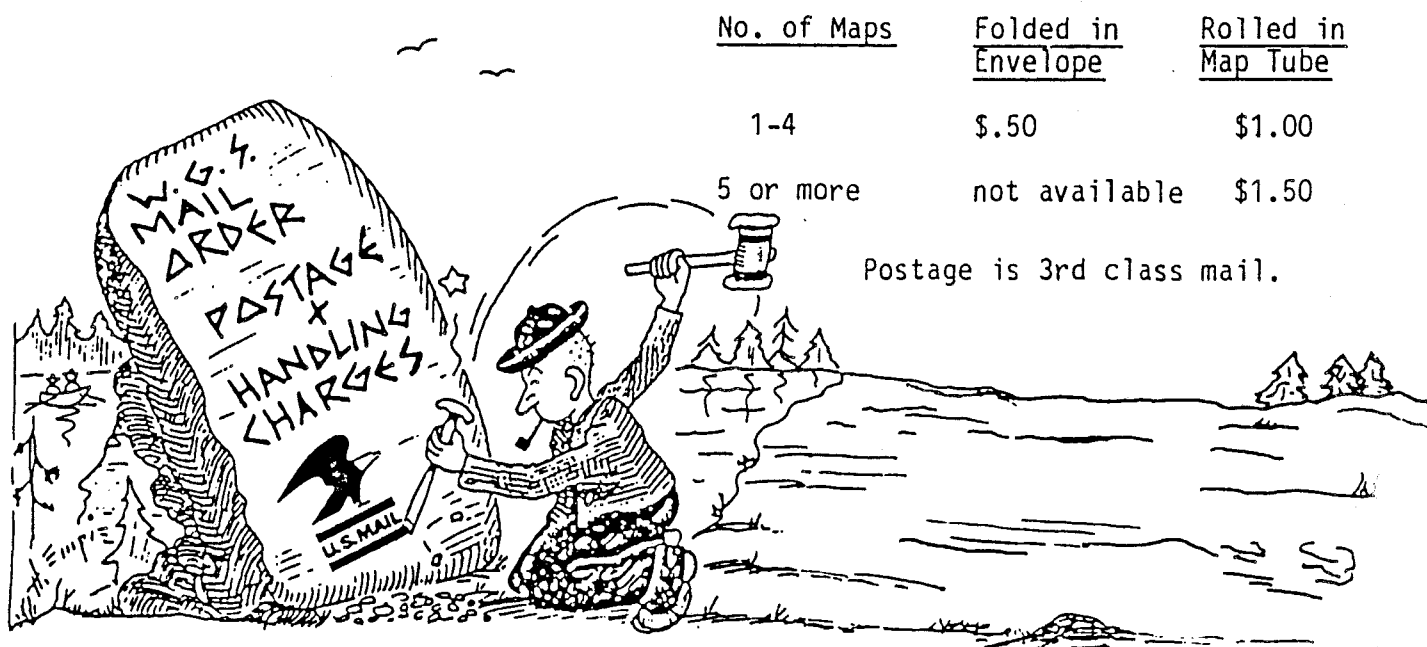
## MAP PRICE INCREASES

The following U.S. Geological Survey maps have increased in price. They are sold both by U.S.G.S. and locally by the Wisconsin Geological Survey, 1815 University Ave., Madison, WI 53706 (608) 263-7389.

	<u>W.G.S.*</u>	<u>U.S.G.S.</u>
Standard quadrangles (15' - 1:62,500 scale or 7.5' - 1:24,000 scale)	\$2.00	\$2.00
Orthophotoquadrangles	\$1.00	\$2.00
1:100,000 metric topographic 30' x 10' quadrangles**	\$3.25	\$3.25
U.S. series topographic maps at the scale of 1:250,000	\$3.25	\$3.25
Wis. State Base map at the scale of 1:1,000,000	\$2.00	\$2.50
Wis. State Base map at the scale of 1:500,000	\$2.50	\$3.25
Wis. State Topographic Base map at the scale of 1:500,000	\$3.50	\$3.25
Wis. Shaded Relief map at the scale of 1:500,000	\$3.50	\$3.25

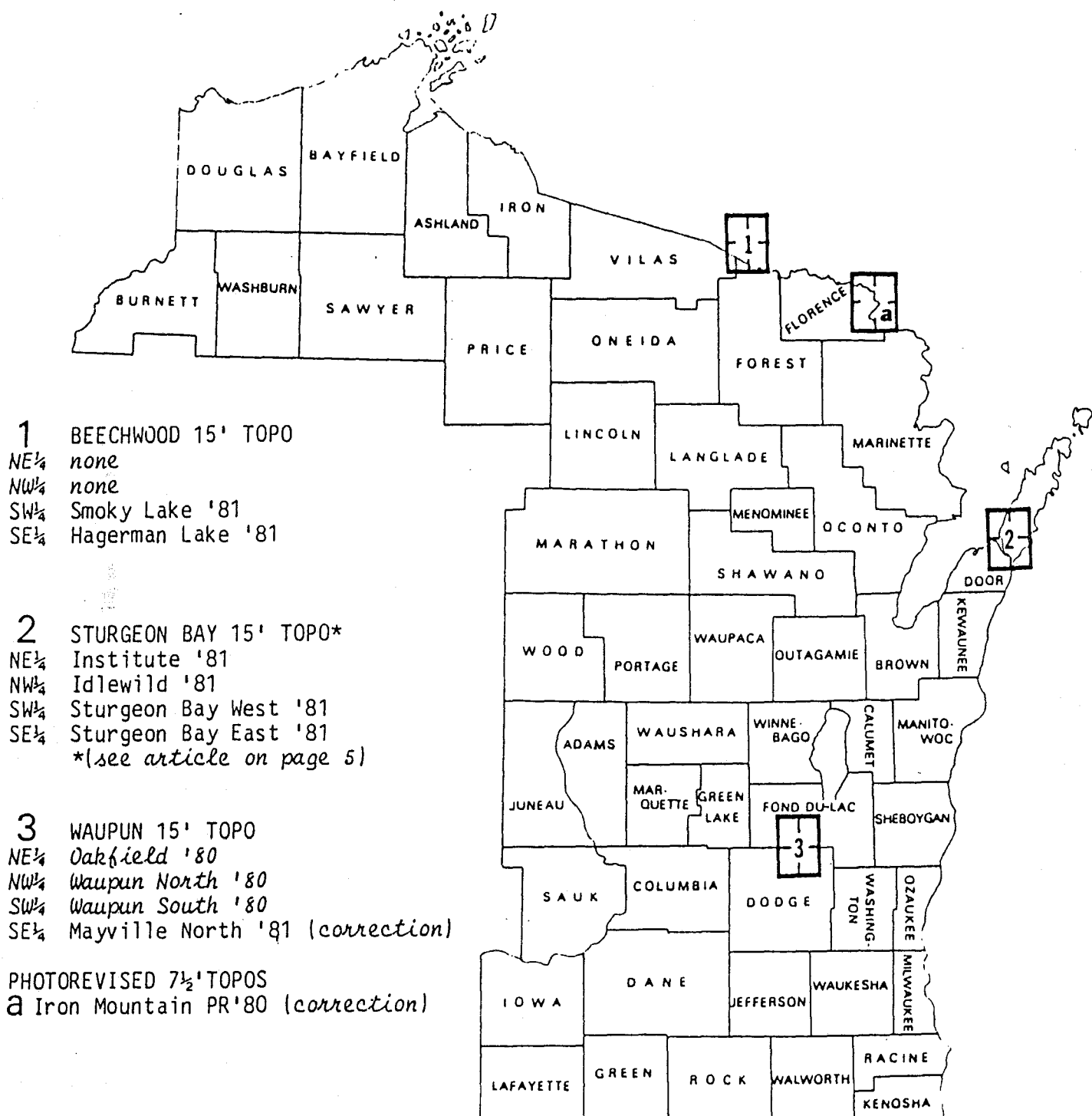
\*prices include the Wisconsin sales tax

\*\*Outer Island is currently not in stock at W.G.S. However Waukegan (SW¼ Racine 1:250,000) is available. Refer to the October 1981 Bulletin for an index map to this series.



# 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, WI 53706 (608) 263-7389. Topographic quadrangles are \$2.00 each.\*\*

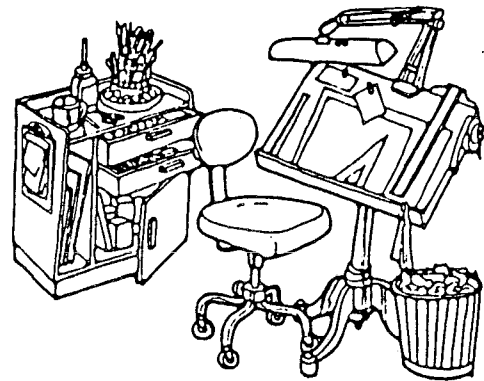


NOTE: Order 7½' quads by name, NOT by the index number or letter used here for locational purposes.

\*\*See page 2 for postage and handling charges.

## U. S. G. S. PROVISIONAL MAPPING

The U.S. Geological Survey is undertaking a radical change in their standard mapping program for the 7½' topographic quadrangle series. The National Mapping Division of the U.S.G.S. is introducing a provisional map as an interim edition instead of producing a standard 7½' quad. The provisional map is essentially a partially edited, multicolor, advance print containing reproductions of part of the stereophotogrammetric machine plates which include some hand lettering and freehand drafting. The provisional edition will be printed in four or five colors depending on the land area.



## NEW U. S. G. S. REVISION POLICY

The U.S.G.S. is proposing to map the remaining unmapped 7½' quadrangle areas of the U.S. with this provisional program. The primary objective is to provide a realistic means of completing nationwide large-scale coverage by 1987-1988. Completion of the standard 7½' quad by the U.S. Geological Survey's estimate would extend past the year 2000.

Some specifics of the program for provisional maps:

1. maps will be published on a 7½' x 7½' format;
2. map scale of either 1:24,000 or 1:25,000, with english or metric units used, will be in accordance with previous state agreements;
3. maps are to be published in five colors (black, blue, brown, green, red) in public land states and in four colors (red omitted) in non-public land states.

Since Wisconsin has only 70 7½' quads (of a total of 1,155) not yet in production, the Wisconsin Topographic Mapping Committee objected strongly to this provisional edition being applied to Wisconsin. In December the Committee's chairman, the State Geologist, was informed that Wisconsin's exemption position was receiving favorable consideration. The final outcome of this mapping proposal will be reported in the Bulletin.

The U.S. Geological Survey is initiating a complete revision program on 7½' topographic quadrangles in Wisconsin. This complete revision will eliminate the previous magenta colored overprinting now prevalent on all revised quads.

The first quadrangles to be completely revised are the Madison East, Madison West, DeForest, Middleton and Waunakee 7½' topographic quads in DANE County. The U.S.G.S. will utilize high-altitude aerial photography\* and the Dane County large-scale color photography to revise all detail. This includes some stereo model set-ups for revising contours. U.S.G.S. will redraft the necessary plates for printing without the magenta overprint. This means that these five quads will have a complete new base printed. They will still be at 1:24,000 scale in the 7½' x 7½' format with English version (foot) contours.

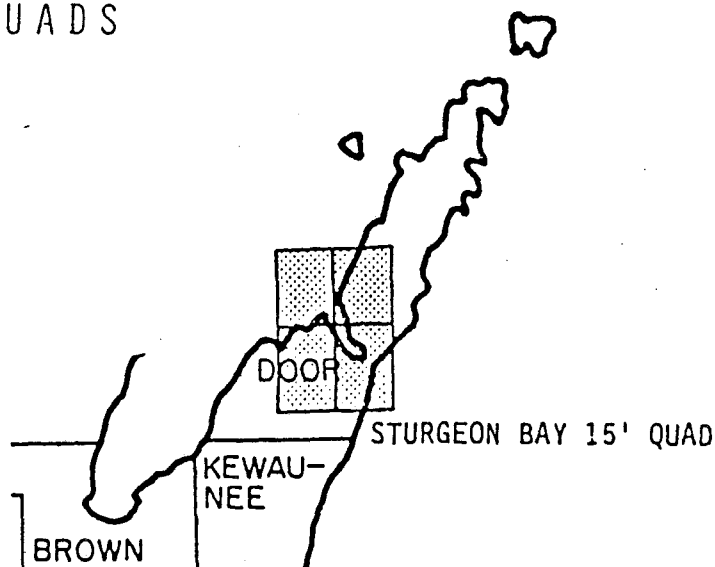
Officials of the U.S.G.S. at Rolla, Missouri stated that this type of revision will not be applied to large city areas such as Milwaukee, Detroit, Chicago and St. Louis because the U.S.G.S. is considering a larger scale city map in these areas and they are not redrafting the 7½' quads. It now appears that the complete revision policy will only be applied to medium-size cities such as Madison or Green Bay.

\* see page 1

## UNIQUE STURGEON BAY QUADS

(ref. v. 7, no. 2; v.6, no. 3)

Four new 7½' quadrangles were recently issued by the U.S. Geological Survey. They are Idlewild, Institute, Sturgeon Bay-East, and Sturgeon Bay-West, DOOR County. These are "topo/bathy" (topographic/bathymetric) quads. They show more information than a standard topographic quadrangle. The contour interval for the first 10 feet from the shoreline has been increased to portray additional 2½ foot contours. The contours shown are 582.5, 585 and 587.5; the first standard interval is 590 feet. In addition these maps have increased offshore or bathymetric information shown by water depth curves at one-meter intervals with gradient tinting indicating the water depth. Increased information also includes the ship channel, rocks, and shoals.



The U.S. Geological Survey is producing this type of topo/bathy quad in the Atlantic Coast areas. These quads are the first increased-nearshore-contour-interval/bathymetric information in the Great Lakes area.

Standard topographic quadrangles are funded cooperatively between the State of Wisconsin and the U.S.G.S. The Wisconsin Topographic Mapping Committee authorized the basic production of the four Sturgeon Bay area 7½' quadrangles and the State Cartographer's Office cooperatively funded for the addition of the nearshore contours and bathymetric information included on these maps. Support was also received from the Bureau of Coastal Management, Wis. Department of Administration in coordinating the bathymetric information with the National Ocean Survey, NOAA.

The State Cartographer's Office during January is forwarding complimentary copies of these prototype quads to all coastal zone state, regional and county officials and asking for their comments. If you are interested in seeing these maps, you might check with one of these offices. They may be purchased from the Wisconsin Geological Survey, 1815 University Avenue, Madison, Wisconsin 53706 (Map Sales number 263-7389) for \$2.00 each, plus shipping costs.

## MAPPING GRANTS FLOOD PLAIN/SHORELAND

The Wisconsin Department of Natural Resources administers a grant program to help communities defray the cost of preparing floodplain and shoreland topographic maps. Bill Marlett of Water Regulation and Zoning reports that for the first time the grant money requested exceeded the DNR's annual appropriation of \$180,000. The following list identifies the municipalities that have been awarded grant monies and how much was received. In addition, Kenosha County has two other grants pending (for \$24,924 and \$3,831).

<u>Municipality</u>	<u>Grant Amt.</u>
Weston, Town of	\$37,430.00
Neenah, City of	11,460.00
Brown County	13,900.00
Fond du Lac, City & County	24,680.00
Soldiers Grove, Village of	1,512.00
Waukesha County	3,898.00
Rock County	12,355.00
Waukesha County	25,271.00
Kenosha	206.37
Neenah, City of	9,737.00
Waukesha County	30,715.00
Mayville, City of	390.00

DNR's next deadline is June 1, 1982, at which time another \$180,000 will be available.

## U. S. D. A. A E R I A L P H O T O G R A P H Y

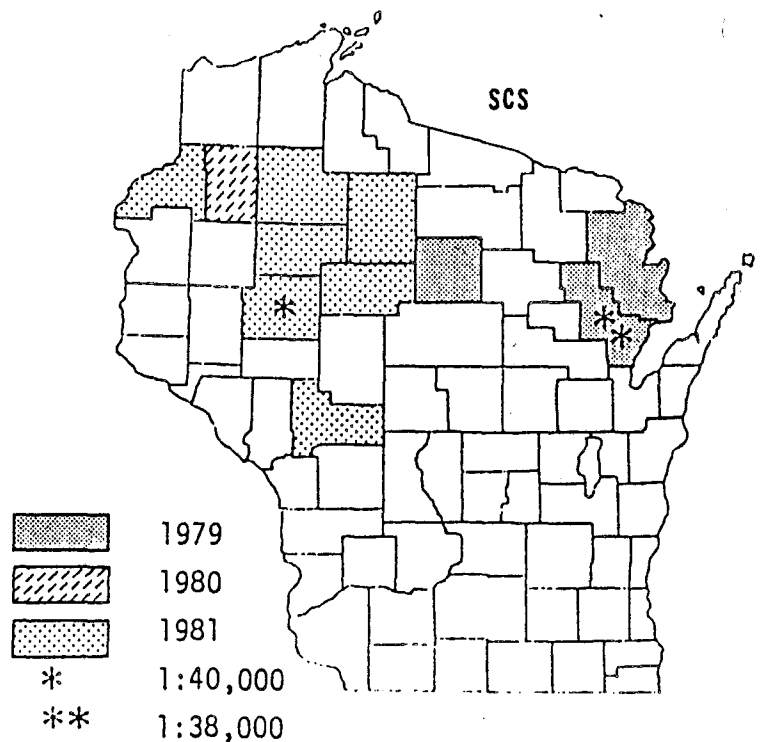
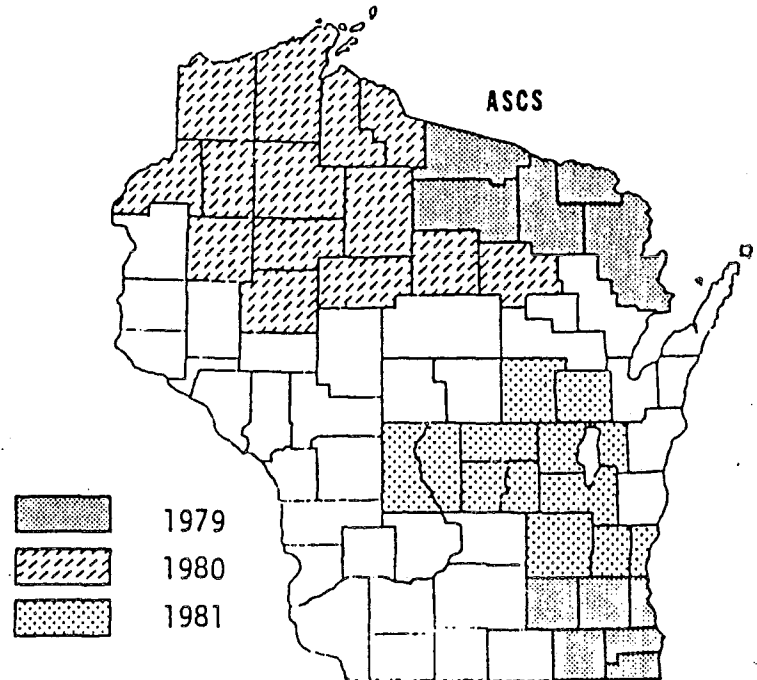
The Agricultural Stabilization and Conservation Service (A.S.C.S.) acquired photography for 27 counties during 1980-81. Including the coverage acquired in 1979, A.S.C.S. flew 38 Wisconsin counties in 3 years. The A.S.C.S. coverage is black-and-white panchromatic, taken during the summer, at 1:40,000 scale (1" = 3,333').

The lower graphic indicates the 8 counties for which the Soil Conservation Service (S.C.S.) acquired photography during 1980-81. The scale is 1:48,000 (1" = 4,000') except for CHIPPEWA County\* which is at 1:40,000 (1981) and OCONTO County\*\* which is at 1:38,000 scale (1979). Combining the summer photography of 1979, 1980 and 1981, S.C.S. has acquired black-and-white panchromatic photography for 11 Wisconsin counties.

If the duplication between A.S.C.S. and S.C.S. is eliminated, the U.S. Department of Agriculture in the past 3 years has photographed 40 counties or 55% of the State of Wisconsin. The December 1981 status report of the U.S.D.A. Aerial Photography Field Office indicates no acquisitions are planned for either agency in 1982.

Indexes of this photography are available at your County Agricultural or Soil Conservation Agent. Photography is ordered from:

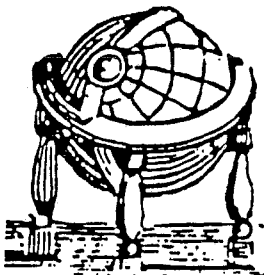
Aerial Photography Field Office  
Administrative Services Division  
A.S.C.S.-U.S.D.A.  
P.O. Box 30010  
Salt Lake City, UT 84125  
(801) 524-5856



## COUNTY CATALOGS

Since our last update, county catalog production was moderate at the State Cartographer's Office. Besides an almost complete changeover in the production staff, our major effort was concentrated on revising the County Catalog Specifications Manual. Once complete, the manual will greatly facilitate the production of county catalogs. These constraints, along with equipment problems, are responsible for the gradual publishing of county catalogs.

At the present time, 23 Wisconsin County Catalogs are available; 5 are in process; and 3 more are scheduled for production. ST. CROIX, ASHLAND, and MARINETTE Counties are scheduled for printing in March of 1982.

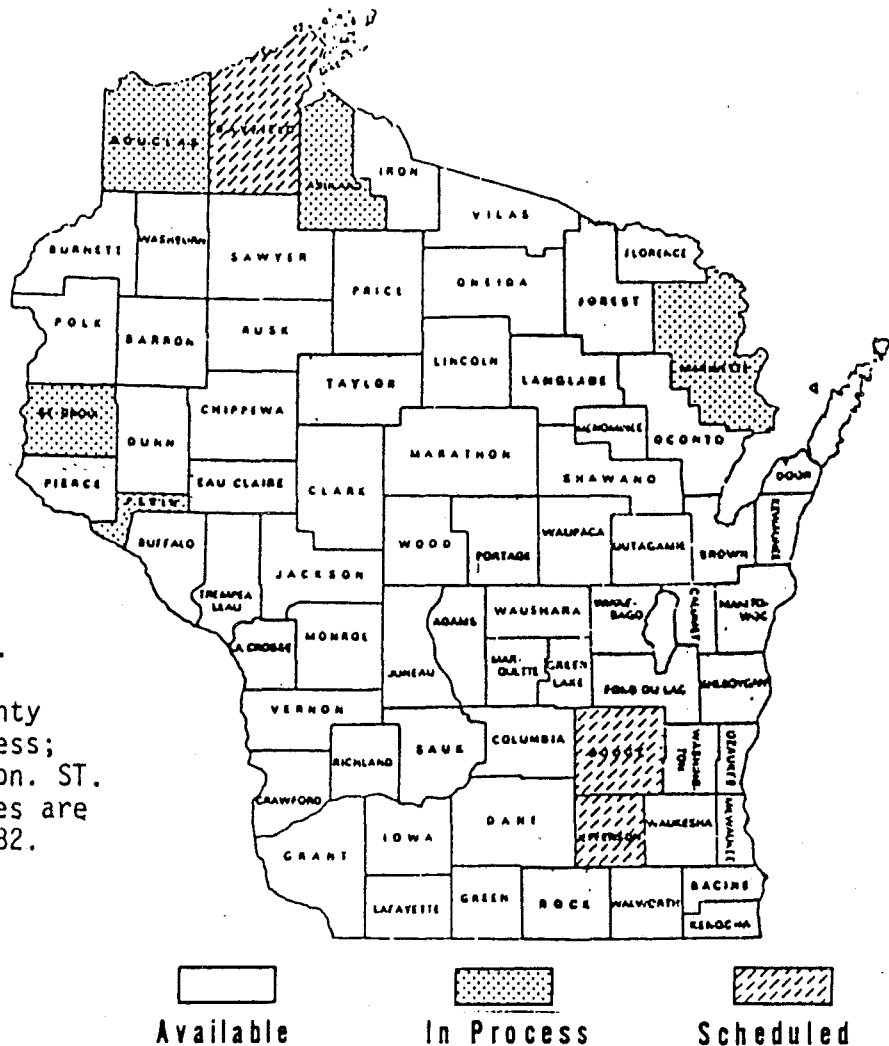


## SCO PHONES

The staff of the State Cartographer's Office can now be reached directly by phone. The new numbers are (area code 608):

262-6852 Art Ziegler  
262-6850 Christine Reinhard  
262-8776 Cartographic Inventory:  
Mike D'Onofrio  
Wendy Ormont  
County Catalogs:  
Jerry Norenberg  
Laurie Boyer

The general office number remains 262-3065. Please use this number when requesting geodetic information.



## YOUR MAILING COVER

Don't throw it away! Look at the inside of it. This mailing cover is also an opinion survey. We would like to know if there is enough interest among you, our subscribers, to offer a cartographic information session on the status of mapping programs in Wisconsin. There's also the possibility of short tours.

Please take a few minutes to read over our short questionnaire. Return it if you're interested in a free, informative program. Based on your responses, we'll decide whether to hold the session. An announcement will be placed in the April Bulletin.

## CARTOGRAPHIC INVENTORY

The State Cartographers Office is now well into its map data acquisition program. This program involves inventorying the cartographic resources of Wisconsin counties, of large municipalities (over 10,000 population), and of state, federal and regional offices.

This past fall Mike D'Onofrio, SCO Field Representative, conducted an inventory of cartographic resources in DODGE, KEWAUNEE, DOOR, MANITOWOC, and CALUMET Counties. So far, approximately 600 cartographic records have been encoded from these counties plus from JEFFERSON County (which was our pilot program area). Each record includes the item's title, source office name, subject categories, description of its major map or aerial photo features, date, scale, producer's name and address, location name and address, and availability information.

In the next few months, Mike plans to visit offices in DODGE, CALUMET, and BROWN counties. Mike typically visits the offices of city and county planners, engineers and surveyors, clerks, assessors, registers of deeds, parks and recreation, highways, U.W.-Extension, and the chambers of commerce. He also inventories the office holdings of the state soil and water conservation districts, regional planning commissions, federal ASCS, SCS, and Army Corps of Engineers offices.



## NATIONAL GAZETTEER REVISITED

In response to our short article on the National Gazetteer in the October Bulletin, Donald Orth, Executive Secretary of the Domestic Geographic Names Board has informed us that the National Gazetteer of the United States of America will be published as U.S. Geological Survey Professional Paper 1200 with each State and Territory as a separate volume. The first volume will be New Jersey and is scheduled for release early 1982; however, no timetable has been established for the release of additional States and Territories. The entire Professional Paper 1200 will be published over a period of about five years.

An interim Alphabetical Finding List is available for some States, including Wisconsin. These publications are reduced-sized, spiral-bound computer printouts containing name information in a one-line entry. The Finding Lists have been only partly edited and contain about 15 percent fewer names than the National Gazetteer will list. Information in the Finding Lists consists of: An alphabetical index of county code numbers (known as FIPS-Federal Information Processing System-numbers; these are five-digit codes that identify the State and the county); An alphabetical index of the topographic maps available for the State; A numerical list of the topographic maps of that State; A list of feature class terms with definitions; An alphabetical listing of all named localities and features that appear on the topographic maps of the State; FIPS numbers for the county or counties in which the feature appears; Year of any pertinent decision by the Board on Geographic Names; Elevation of the feature, if available; Geographic coordinates of the source of a linear feature; Maps covering the area in which the feature appears.

The computer printout for Wisconsin is \$20. The information is also available on magnetic tape for \$100. A service charge of \$25 is added to each tape ordered. Order from: U.S. Geological Survey, NCIC, 507 National Center, Reston, VA 22092 703/860-6045.



## NEW MAPS



### STILLWATER, MN-WI 1:250,000

1953, revised 1980; U.S. Geological Survey; contour interval 50 and 25 feet; with woodland overprint; about 22" by 32"; available from the Wisconsin Geological Survey, 1815 University Ave., Madison, WI 53706; price \$3.25.

### LAKE GENEVA 1:100,000

1980; U.S. Geological Survey; intermediate-scale, metric topographic map; contour interval 10 meters; NE $\frac{1}{4}$  of the Rockford 1:250,000; available from the Wisconsin Geological Survey (address above) \$3.25.

### GLACIAL MAPPING

A team of geologists from the Wisconsin Geological Survey has been mapping the glacial deposits in the Ashland and Duluth 1:250,000 map areas. This includes DOUGLAS, BAYFIELD, ASHLAND, IRON Counties and the northern parts of BURNETT, WASHBURN, and SAWYER Counties. This information will eventually be plotted on 1:100,000-scale maps. At this time the data are only available for viewing at the Survey's offices at 1815 University Ave., Madison. Contact Lee Clayton (608/263-6839) for more information.

### ELECTROMAGNETIC & MAGNETIC SURVEY

Airborne electromagnetic and magnetic survey of parts of the Upper Peninsula of Michigan and northern Wisconsin; by Geoterrex, Ltd., with an introduction by W.D. Heran. 33p., 22 over-size sheets; microfiche \$14.50; paper copy \$73.50; contract report; open file # OF81-0577-A (for address see below).

Analog records from an airborne electromagnetic and magnetic survey of parts of the Upper Peninsula of Michigan and northern Wisconsin; by Geoterrex, Ltd., with an introduction by W.D. Heran; 519 p.; available only on microfiche \$129.75; contract report; open file # OF 81-0577-B; available from the Open-File Services Section (OFSS), Western Distribution Branch, U.S. Geological Survey, Box 25425, Federal Center, Denver, CO 80225 (303-234-5888).

### OLIN PARK, MADISON

The Madison Parks Department now has a detailed topographic map of Olin Park, thanks to students in the Civil Engineering Technology-Public Works program at Madison Area Technical College. It shows all the park's hills and valleys, roads and buildings, and even locates every tree over one foot in diameter.

The same students are now surveying James Madison Park, using different methods, and will again present the results to the Madison Parks Department when they are through. The Olin Park and James Madison Park map-making projects were carried out under the direction of surveying instructor James Van Loenen and drafting instructor Greg Erickson. (source: *The Capital Times*)

### UW-MADISON SAFETY MAP

A new map of the University of Wisconsin designed to alert women to nighttime safety features on campus was distributed during second semester registration week. The free map was developed by the UW Campus Security Committee. Map features include: the evening campus bus schedule; the location of well-lighted and attended parking lots; information on the Women's Transit Authority; the locations of lighted foyers in six residence halls that are open all night and have free telephones, and the eight locations of emergency telephones connected directly to campus police. (source: *The Capital Times*)

continued

## NEW MAPS, CONTINUED

### MINERAL DEPOSITS MAP OF NORTH AMERICA

This 14-color map, titled "Preliminary Metallogenic Map of North America," depicts the geology and ore deposits from Greenland to Panama, including the islands of the Caribbean. Published at a scale of 1:5,000,000 (1 inch represents about 80 miles), the five-by-six-foot map is printed in four sheets.

The location, metal and mineral content, relative size, host-rock environment, igneous-rock association, type, and geologic age of 4,215 ore deposits and districts are shown on the map by colored symbols superimposed on the geology.

Copies may be purchased for \$10.00 a set from Branch of Distribution, U.S. Geological Survey, 1200 South Eads St., Arlington, VA 22202. Copies of the companion reports, USGS Circular 858-A, "Preliminary Metallogenic Map of North America: A Numerical Listing of Deposits", and USGS Circular 858-B, "An Alphabetical Listing of Deposits", are free upon application to Text Products Section, Branch of Distribution, U.S. Geological Survey, 604 South Pickett St., Alexandria, VA 22304.

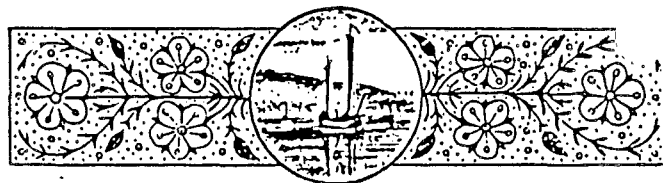
### CIA MAPS

A handy listing of all unclassified maps, atlases, and other publications produced by the Central Intelligence Agency is available from the Public Affairs Office, CIA, Washington, D.C. 20505 (phone 703/351-7676). Over eighty general reference maps of foreign countries are included and more than a dozen descriptive listings of atlases and other items of cartographic interest. Ordering information (address, phone number, and payment type accepted) is also given; specific prices are not included. (source: *The American Cartographer*)

## NEW CHIEF OF SPECIAL SERVICES, D. O. T.

Following the death of Vern Schultz in February 1980, Mr. Robert Holdridge has been acting chief of the Special Services Section of the Department of Transportation. Bob served on the Committee on State Cartography, the Wisconsin Topographic Mapping Committee and the Wisconsin Geographic Names Board.

The Department of Transportation recently selected a permanent chief for this section. He is Mr. Thomas E. Carlsen. Mr. Carlsen will manage the activities of the geodetic survey and photogrammetry units, including the department's aerial photography and photo lab services, which support the operations of all eight transportation districts and other central office sections. We congratulate Mr. Carlsen on his appointment and wish him well on his new assignment.



## BAY-LAKE REGION PHOTOGRAPHY

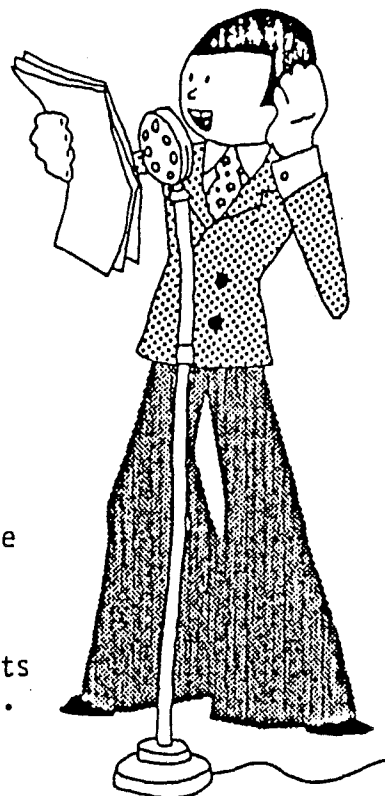
The 1980-81 aerial photography coverage flown by the Bay-Lake Regional Planning Commission is available for public distribution. The aerial photography is indexed according to Congressional Town lines, and is leaf-off at a scale of 1" = 800'. Each aerial photo is a 42" x 42" diazo print which covers 36 square miles. Coverage is available for the following counties: BROWN, DOOR, FLORENCE, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, and SHEBOYGAN. For more information and aerial photography indexes contact: Bay-Lake Regional Planning Commission, Suite 450, S.E. Building, UWGB, Green Bay, WI 54302 (414) 465-2135.

## COMING EVENTS

**SURVEYING AND PHOTOGRAMMETRY**--a series of Civil and Environmental Engineering home study courses, is now available from the University of Wisconsin-Extension. Four courses comprise the series: ELEMENTARY SURVEYING I, ELEMENTARY SURVEYING II, ADVANCED SURVEYING, and PHOTOGRAMMETRY. The courses are for those working in construction, surveying, cartography and other technical fields. The courses are useful to persons preparing for new job responsibilities and for professional licensing.

The surveying course topics include: measurement of angles and distances, leveling and cross sectioning, area and traverse computations, horizontal and vertical curves, state and US plane coordinate systems, astronomical and solar observations, topographic mapping and land surveying. The photogrammetry course teaches the basics of metric photogrammetry, measurements and interpretive photogrammetry, and recognition of principles. The photogrammetry course is announced in cooperation with the American Society of Photogrammetry.

Complete information and enrollment forms for the series, SURVEYING AND PHOTOGRAMMETRY, may be obtained by writing Professor C. Allen Wortley, Department of Engineering and Applied Science, Room 713, University of Wisconsin-Extension, 432 North Lake Street, Madison, WI 53706; or by calling (608) 262-0577.



**MAP PROJECTION EQUATIONS**--The object of this institute is to describe the orderly means of transforming positions of places on the surface of the earth to corresponding points on a flat sheet of paper: a map. The background of the problem is developed, and the unifying principles are explained. The three major categories of maps: the conformal, the equal area, and the conventional are explored. A mapping program, in FORTRAN, containing the most useful projections, is described. A users manual for this program is introduced.

The institute will be held in Madison on Feb. 22-23, 1982. The fee is \$285. For more information call (608) 262-3516, or write to the Department of Engineering & Applied Science, University of Wisconsin-Extension, 432 North Lake Street, Madison, WI 53706.

**LAND SURVEYING REFRESHER**--to be held March 10-12, 1982 in Madison. This intensive three day course will concentrate on the fundamentals and practical problems of land surveying. The emphasis will be on topics covered in the national and state registration examinations. It will provide an opportunity to prepare for the examination, and for individuals to review the basic concepts and skills of land surveying. The fee is \$225. For more information contact: Department of Engineering & Applied Science, University of Wisconsin-Extension, 432 N. Lake Street, Madison, WI 53706, or call (608) 262-7988.

**DENVER CONVENTION AND WORKSHOPS**--The 1982 annual meeting of the American Congress on Surveying and Mapping/American Society of Photogrammetry will be held in Denver on March 14-20. The program's theme is "Globe to Galaxy - A Mile High View in '82". For more information on the convention contact Lyle Kemper, ACSM-ASP Convention, P.O. Box 15652, Denver, CO 80215, (303) 234-2351.

continued

## COMING EVENTS, CONTINUED

Several continuing education workshops are scheduled in conjunction with the 1982 convention:

### Remote Sensing for Cultural Resource Management

March 13-14 (9:00 a.m., Saturday to 5:30 p.m., Sunday)

Workshop Leader: Dr. Stan Morain

Workshop Fee: \$225 members; \$235 nonmembers

### Map Production and Reproduction

March 14 (9:00 a.m.-5:00 p.m.)

Workshop Leader: Dr. Jon Kimerling

Workshop Fee: \$95 members; \$100 nonmembers

### Corner Point Identification and Cadastral Survey Monumentation

March 14 (9:00 a.m.-5:00 p.m.)

Instructors: BLM instructional staff

Workshop fee: \$75 members; \$80 nonmembers

### 35 mm Aerial Photography for Natural Resource Evaluation

March 14 (1:00 p.m.-5:00 p.m.)

Workshop Leader: Dr. Roy A. Mead

Workshop Fee: \$75 members; \$80 nonmembers

### Cost Estimation for Map Production

March 19 (9:00 a.m.-5:00 p.m.)

Workshop Leader: Mr. Stan Grzeda

Workshop Fee: \$95 members; \$100 nonmembers

Members' fees apply to members of either ASP or ACSM. You do not need to register for the convention to attend a workshop. For additional information, contact: Education Director, ACSM, Little Falls Street, Falls Church, VA 22046, (703) 241-2446.

## URISA ANNUAL CONFERENCE

The Urban and Regional Information Systems Association has issued a call for papers for its 20th annual conference in Minneapolis on August 22-25. The theme is "PRACTICAL APPLICATIONS OF COMPUTERS IN GOVERNMENT".

The aim of this year's URISA conference is to encourage government agencies at the federal, state, and local levels to share their experiences in implementation and improvement of modern computer technology in Geographic Systems and Techniques, Interactive Graphics, Census Data Processing and Analysis, Geographic and Mapping Systems for Utilities and Public Works, and Parcel-level Tax, Title and Planning Systems. For more information contact Thomas M. Palmerlee, Program Chairman, URISA, 2033 M Street, N.W.-Suite 300, Washington, D.C. 20036 (202/466-7406).



## LEGISLATIVE ACTION

SENATE BILL 547, relating to use of railroad lines as landmarks by the county surveyor, was introduced on September 2, 1981 by Senator Harnisch, by request of the Wisconsin Society of Land Surveyors. It was referred to Committee on State and Local Affairs and Taxation. A public hearing was held on October 14th and the Committee must now hold an executive meeting to recommend passage or not.

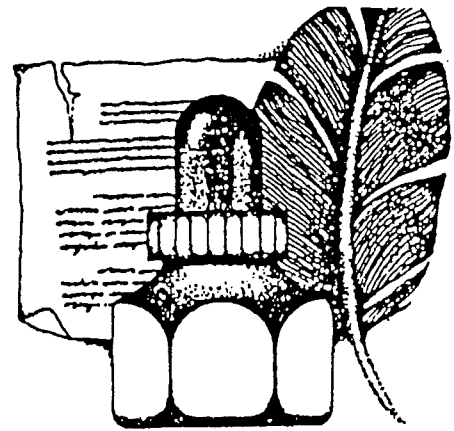
This bill requires the owner of any railroad line to notify the county surveyor prior to abandoning or moving the line. If the line is used as a landmark, the county can charge the railroad for the cost of creating a new landmark to replace the line. Under present law, any person who destroys, removes or makes inaccessible a landmark must notify the county surveyor but the county is liable for the cost of perpetuating the landmark.

This bill is likely to result in a cost decrease for counties because of the shift in cost liability from counties to railroads. However, it is not possible to provide a precise estimate for the following reason:

- 1) The frequency with which railroad lines have been used as landmarks is not known.
- 2) The frequency with which railroad lines, which had been used as landmarks, and which subsequently, were abandoned or unused, also is unknown.

SENATE BILL 505, relating to distribution of highway service maps and folded highway maps to members and officers of the legislature, was introduced by Senator Johnston on July 22, 1981. It was referred to the Committee on Aging, Business and Financial Institutions and Transportation. As of January 1982 it still remains in Committee.

Currently, each officer and member of the legislature automatically receives 50 free highway service (wall) maps from the Department of Transportation each time



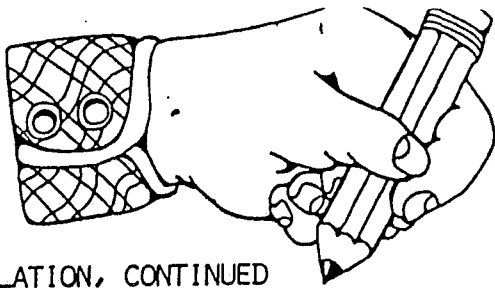
the maps are published. Officers and members may request additional service maps from the Department upon payment of a fee for each map set by the Department at not less than cost. In addition, each officer and member automatically receives 500 folded highway maps from the Department each time these maps are published. Officers and members may request an unlimited quantity of additional folded maps from the Department at no cost to them.

Under this bill, not more than 500 service maps and 500 folded maps are to be sent by the Department to each officer and member of the legislature upon request without charge. If an officer or member requests additional folded maps, the officer or member must pay a fee for each map set by the Department at not less than cost.

SENATE BILL 486, relating to allowing cities to place waterways on the official city map, was introduced on June 25, 1981 by Senator Frank; cosponsored by Representative Gerlach, by request of City of Oak Creek Planning Department. It was referred to the Committee on State and Local Affairs and Taxation, where it was recommended for passage 5-0. As of January 1, 1982 it has not been placed on the Senate's calendar.

This bill allows cities to place on their official maps the location of any stream, ditch or other waterway within the city. Under present law, the official map of a city is used to plan the layout of the city and to specify the location of future streets, highways, railroad rights-of-way, public transit facilities, parks and playgrounds. The map serves as a notice of the city's intention to develop in certain areas. After a proposed

continues



## ASP - ACSM REGIONAL CONFERENCE

### LEGISLATION, CONTINUED

improvement is placed on the map, any person who builds in the path of the improvement without a building permit is not entitled to compensation for damage caused in the course of constructing the improvement.

This bill does not affect the authority of the Department of Natural Resources to require a permit for the deposit of any material obstruction in navigable waters, the diversion of water from lakes and streams when used for certain purposes, the construction, dredging or enlargement of waterways or any change in the course of streams.

ASSEMBLY BILL 547, relates to creating a property tax exemption for real property lying in the bed of proposed improvements that are shown on an official city map. It was introduced by Representatives Ellis, Donoghue, Dilweg and DeLong on May 28, 1981. It was referred to the Joint Survey Committee on Tax Exemptions where it still remains.

Under present law, a city may prepare an official map of the city showing the streets, parks, rail lines and public transit facilities within the city. The city may amend its official map to show the lines of planned improvements both within the city and extending beyond the city boundaries a certain distance. After adding the lines of the planned improvement to the map, any person owning property within the bed of a planned improvement must receive a permit prior to building on the property. If the person fails to receive a permit the city is not required to pay the person for damage to the building in the course of constructing its planned improvement.

This bill states that if a person's request for a permit to build in the bed of a planned improvement is denied, the person is not required to pay taxes on the property.

Drawing over 160 registrants, the first joint conference of the Western Great Lakes Region of the American Society of Photogrammetry and the Southern Lake Michigan Section of the American Congress on Surveying and Mapping was judged to be an unqualified success. The Sheraton O'Hare conference held on November 13 and 14 featured concurrent sessions and tours of local mapping firms.

The speakers addressed a broad range of topics in photogrammetry, control surveys, land surveys, cartography, and digital cartography. Several speakers focussed on evolving federal mapping programs and how changes in these programs affect local efforts. Some sessions addressed the fundamentals, while others, the most recent advances in knowledge and technology.

As might be expected, sessions often addressed the problems associated with the need to do more with less money. Among them was Art Ziegler's report on the Westport Land Records Project. Mr. Ziegler, the Wisconsin State Cartographer, examined the reliability, cost, and required accuracy of a survey-based cadastre, the feasibility of developing such a system in a local government setting, and public attitudes towards public land information.

The success of this regional conference indicates the need for others. A local conference can offer unusually low registration fees and can therefore attract many who might not otherwise have access to professional continuing education. Additionally, the 1½ hour format provided ample opportunity for discussion and enabled more detailed presentations of difficult topics than is usually the case.

(source: *Illinois Mapnotes*, Dec. 1981)

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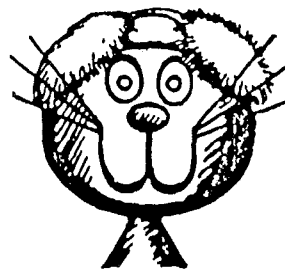
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## THE EDITOR SMILES

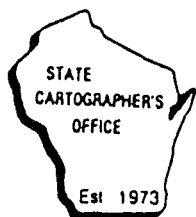
Letters like this one from Jerry Larsen of Pierce County make the trials and tribulations of quarterly Bulletin preparation easier to bear:

"I am a planner working in Pierce County, Wisconsin. Recently, a friend of mine, who is also a planner, showed me his last 10 issues of the Wisconsin Mapping Bulletin. After reviewing this information, I don't know how I have been getting along without it. I have a constant need for up-to-date information on Pierce County's resources.

Many of the articles in the Bulletin interested me and I am writing off for many of the maps that were written about over the last 10 issues. I would like to be included on the regular mailing list to receive the Wisconsin Mapping Bulletin. I am pleased to see that the Bulletin is free of charge but I would be willing to pay for it, when that day arrives.

I have recently worked on a project for Pierce County and much of our mapping work was done using computers. The county's soils, geology and surface water were all mapped using a format that enabled us to overlay the results of combined testing for each resource. I was pleased to see information available for similar work in other counties in the Bulletin. I have been looking for those contacts for a long time. Keep up the excellent work."

Thank-you, Jerry! The Editor welcomes all such comments!



THE WISCONSIN MAPPING BULLETIN IS DISTRIBUTED FREE OF CHARGE ON REQUEST. NEWS ON COMPLETED OR ONGOING PROJECTS, PUBLISHED MAPS OR REPORTS, AND CONFERENCES/WORKSHOPS IS WELCOMED BY THE EDITOR. LOCAL AND REGIONAL INFORMATION IS ESPECIALLY REQUESTED. PLEASE SEND ALL COMMENTS, CORRECTIONS AND NEWS ITEMS TO CHRISTINE REINHARD, STATE CARTOGRAPHER'S OFFICE, 144 SCIENCE HALL, MADISON, WI 53706, (608) 262-3065.

January 1982



# REMOTE SENSING BROADCAST

## WISCONSIN MAPPING BULLETIN SUPPLEMENT

JANUARY 1982

Christine Reinhard, Editor

ENVIRONMENTAL REMOTE SENSING CENTER

State Cartographer's Office 144 Science Hall, Madison, WI 53706 (608) 262-3065

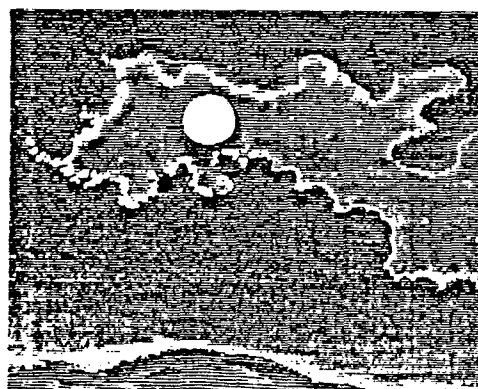
### WISCONSIN'S STONEHENGE

A team of University of Wisconsin environmental engineers has discovered what it believes to be a Stonehenge-type land calendar in a dense marshland northeast of Wisconsin Rapids. Although the stones at the newly discovered Wisconsin Rapids site are overgrown with centuries of vegetation and covered with lichen, the team claims that the structure is basically intact. Initial measurements indicate that upright stones, known as cairns, are aligned with solstices and equinoxes. They also believe that other lines at the site may indicate angles of latitude and azimuth lines. Located on an insular highland in the center of a dense and massive bog, remains of the Wisconsin Rapids calendar were apparently spared from ruin because European settlers either could not reach them or had no use for the land.

UW Civil and Environmental Engineering Professor James Scherz found the site by chance while taking special aerial photographs with remote sensing devices for the Department of Natural Resources. The DNR was using the photos to map state wetlands when cartographers noticed strange formations of a regular pattern, including a large circular mound, showing up on the images. Scherz described the alignment of the cairns and rocks at the site as a "very sophisticated" geometric pattern. With the aid of graduate student Khaleel Jassem, he is developing a computer program to confirm and correlate angles and lines of the stones to determine how

closely they correspond to seasonal movements of the sun and other stars. Scherz has already applied for a grant from the National Science Foundation. He hopes to direct a concerted archeological program at the site of the prehistoric calendar to determine its age and perhaps get some clues about who built it.

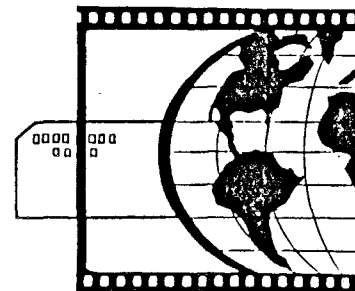
(source: THE CAPITAL TIMES)



### CROP INVENTORY/MONITORING SYMPOSIUM

The 8th International Symposium on Machine Processing of Remotely Sensed Data with special emphasis on Crop Inventory and Monitoring will be held on July 7-9, 1982 at Purdue University. A special "Crop Inventory" version of the "Numerical Analysis of Remote Sensing Short Course" is planned for the following week. For more information contact: Mr. D.B. Morrison, Purdue University/LARS, 1220 Potter Drive, West Lafayette, IN 47906, phone (317) 494-6305.

## LANDSAT PRICES



New LANDSAT prices went into effect October 1, 1982. The increase is called for by the decision that users bear the costs of operating and maintaining the operational NOAA Landsat-D system through the fees they pay for the products and services provided by the system. Prices are given below.

When the Landsat-D system becomes operational in 1983, it will be possible for users to request the special acquisition of Landsat-D Multi-Spectral Scanner (MSS) scenes that are not scheduled for collection. NOAA is offering this new service to meet the longstanding demand from some users for a more flexible data collection program. The charges for this new service are shown on the NOAA price list. NOAA will be publishing a description of the operational MSS data collection program in the Spring of 1982 and, with it, the procedures for ordering special acquisition scenes.

All present and future Landsat products in the archive will be sold at the new prices. All good quality Landsat-D MSS data that are collected during routine or special acquisition periods will be used to derive products for the archive. The archive itself will remain at the EROS Data Center (EDC), Sioux Falls, South Dakota when NOAA becomes the manager of the operational Landsat-D system in 1983. EDC will continue to service Landsat data users until NOAA takes over the user support activity. At that point, responsibility will shift to NOAA under agreements with EDC and the U.S. Geological Survey that protect the continuity of user services.

### Imagery Products

70 mm film positive (B & W).....	\$ 26
70 mm film negative (B & W).....	32
10 in. film positive (B & W).....	30
10 in. film negative (B & W).....	35
10 in. paper (B & W).....	30
20 in. paper (B & W).....	58
40 in. paper (B & W).....	95
10 in. film positive (color).....	74
10 in. paper (color).....	45
20 in. paper (color).....	90
40 in. paper (color).....	175
16 mm microfilm (B & W).....	60
35 mm slide (color), from an existing collection.....	4
16 mm microfilm (color, 100' roll).....	150

Generation of Color Composite (false color IR)-add to product price \$195.00

### Special Acquisition Data and Products

(Special Acquisition signifies Landsat D MSS scene data that are not scheduled for routine collection, but which are provided upon user request.)

Delivery of preprocessed digital data, to the requestor's site via communication satellite; per MSS scene collected at a time and place specified by the requester.....\$ 790

## LANDSAT PRICES, CONTINUED

Delivery to the requestor of a frame of standard MSS imagery (not a color composite); per MSS scene collected at a time and place specified by the requestor.....\$ 880

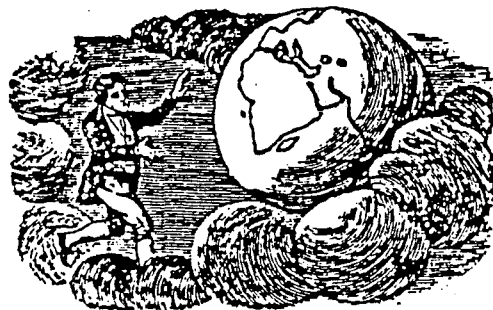
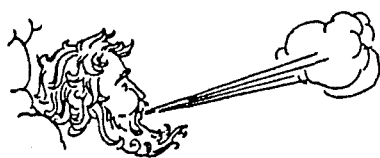
Delivery to the requestor of a computer compatible or high density digital tape; per MSS scene collected at a time and place specified by the requestor.....\$1000

Surcharge for delivery of a color composite to the user originally requesting the special acquisition of an MSS scene; per scene.....\$ 150

Surcharge applied when the requestor establishes a maximum allowable cloud cover condition for the collection of an MSS scene; per scene.....\$ 250

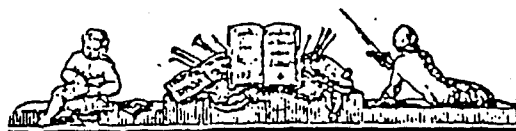
## LANDSAT-D SCHEDULE

The launch of Landsat-D is still expected to take place in the third quarter of 1982. The second spacecraft in this series, Landsat-D', will be available about 15 months later and will be launched following the failure of Landsat-D. Spacecraft lifetimes are projected to be three years. In January 1983, NOAA will become the operator and manager of the operational Landsat-D program, responsible for spacecraft control, the preprocessing of Landsat-D MSS data, and for archived and real time Landsat data services. NOAA, NASA, and the EROS Data Center have programmed their individual and joint Landsat activities to meet this schedule. NOAA's recently established Landsat operations activity group is engaged in projects leading to the January 1983 transfer of system management to NOAA. The group is working with NASA on system implementation tasks. The group is also helping to establish with EDC the agreements needed to place Landsat product and service functions under NOAA direction and is developing plans for NOAA's operation and maintenance of the system.



## ADVISORY COMMITTEE FORMED

On August 12, 1981, Secretary of Commerce Baldrige authorized the establishment of the Land Remote Sensing Satellite Advisory Committee. The Committee will advise the Secretary on matters pertinent to the implementation and management of the operational Landsat program. It will be called upon to provide advice and make recommendations in such Landsat areas as those having to do with data requirements, priorities, data and product pricing, and proposals for private sector ownership. The 15-member Committee will be appointed by the Secretary. Appointments will be made so as to assure balanced representation among the interested domestic non-federal communities, including state and local governments, data users, the value-added service industry, the academic community, the aerospace industry, and potential commercial owners and investors in the program. Nominations for membership on the Land Remote Sensing Satellite Advisory Committee now number over 150.



## PUBLICATIONS OF INTEREST

### LANDSAT NOTES

The Landsat Data Users Notes is published bi-monthly in order to present information of interest to the user community regarding Landsat products, systems, and related remote sensing developments. There is no subscription charge; individuals and organizations wishing to receive the NOTES should contact the User Services Section, U.S. Geological Survey, EROS Data Center, Sioux Falls, SD 57198, telephone: (605) 594-6511.

### WESTERN REMOTE SENSING NEWSLETTER

A newsletter of features, summaries, current publications, events, contracts, and news of remote sensing projects of universities and the private sector in the West. Annual (8 issues) rates: \$20 = individual; \$36 = corporate/institutional. Western Remote Sensing Newsletter, P.O. Box 706, Saratoga, CA 95071.

### FORESTRY BIBLIOGRAPHY

The Bibliography of Remote Sensing in Forestry 1950-1978 was compiled by Brian J. Myers and Ian E. Craig. Its purpose is to provide ready reference to the voluminous literature documenting the use of remote sensing in forestry. The sources from which these articles have been drawn were restricted to material which would normally be readily available to the user through a forestry library. The sources include most English language forestry, photogrammetric, and remote sensing journals and the proceedings of regular relevant symposia, but not monographs, foreign language journals, or reports and publications of limited circulation.

Copies of the Bibliography may be obtained free of charge from Mr. Brian J. Myers, Division of Forest Research, CSIRO, P.O. Box 4008, Canberra, A.C.T., 2600 Australia.

### LANDSAT ATLAS

Ryder's Standard Geographic Reference is an all-new atlas based on Landsat photo-mosaics. The volume is 223 pages long and covers the entire United States. At a constant scale of 1:1,000,000 this unique reference work is standardized to the USGS "International Map of the World" series maps, and numerous aeronautical charts. Ryder's is a large format (10" x 12 $\frac{3}{4}$ ") book printed on high quality glossy paper.

A separately available clear acetate overlay provides a Landsat single-frame isolator, and acreage/square mileage estimator, a detailed compass rose, and a nautical and statute-mile scale. Appendices include a description of the Landsat system, photo-atlas usage guide, a basic photo-interpretation guide, and useful geographic information sources. An index with over 5,000 entries is also provided. It is available from RYDER GEOSYSTEMS, 1155 Sherman, Code K, Denver, CO 80203, phone (303) 863-8243. Price: \$41.95, acetate overlay \$2.95 (includes postage and handling).

### POWER PLANT IMPACT STUDY

Mapping Vegetation Complexes With Digitized Color Infrared Film: Wisconsin Power Plant Impact Study by W.J. Buchanan and Frank Scarpace. 1980, 60 pages. Published by the Environmental Protection Agency Environmental Research

continued

## PUBLICATIONS, CONTINUED

Laboratory as report no. EPA-600/3-80-054. For more information about this study contact Prof. Frank Scarpace, Dept. of Civil and Environmental Engineering, University of Wisconsin, 1212 Eng. Building, Madison, WI 53706 (608/262-1405).

### EDUCATION PROGRAMS

A report entitled Wisconsin Remote Sensing and Mapping Science Educational Programs has just been published by the Environmental Remote Sensing Center of the University of Wisconsin-Madison. This document presents information pertaining to remote sensing and mapping science programs at colleges and universities in Wisconsin. It contains a compilation of faculty, courses, and equipment associated with instructional and research programs in remote sensing, air photo interpretation, cartography, photogrammetry, surveying and geographic information systems. The purpose of this guide is to provide access to the statewide technical and informational expertise available for persons in the public and private sectors. Information from fourteen educational institutions is included. For a free copy of this report, contact: Bob Merideth, Environmental Remote Sensing Center, 1225 W. Dayton Street, Room 1253, Madison, WI 53706.

## EDUCATORS CONFERENCE

Representatives from several Wisconsin colleges and universities met in Madison recently for a conference of Wisconsin Remote Sensing and Mapping Science Educators. The purpose of the gathering was to initiate interaction and communication among the various remote sensing and mapping science educators dispersed around the state.

The format of the one-day conference included discussions of federal and state remote sensing programs by representatives from the National Aeronautics and Space Administration (NASA), the U.S. Forest Service, and the Wisconsin State Cartographer's Office. However, the emphasis of the conference focused on short presentations by the attendees concerning instructional and research activities at their respective institutions.

Included in the conference was a tour of the computer facilities in the Image Processing Laboratory of the Institute for Environmental Studies as well as a demonstration of an Apple II microcomputer for presenting remote sensing applications in the classroom.

Funding for the conference came from the Eastern Regional Remote Sensing Applications Center of NASA.

## E. D. C. CUTS PRODUCTS

As of July 1, 1981, paper prints from the following types of master reproducible images were no longer available as standard products from Eros Data Center:

70-mm aircraft photographs  
127-mm aircraft photographs  
All manned-spacecraft photographs (Skylab, Apollo, and Gemini missions).

This change involves paper products only; contact-size positive and negative film products continue to be available as they have in the past.

Users can still order paper prints of any of the above types of photography, but these requests will be handled as custom orders. A price three times that of the standard product price will be charged.

Any questions concerning the availability of specific images can be directed to the User Services Section, U.S. Geological Survey, EROS Data Center, Sioux Falls, SD 57198, telephone: (605) 594-6151.

# U. S. GEOLOGICAL SURVEY PHOTOGRAPHY

General information concerning aerial photography for the United States and its Territories and a current price list of reproductions can be obtained from:

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

Because many types of reproductions of aerial photography are available, requests should state the purpose for which the photographs are desired and define the specific area of interest by means of a detailed description, sketch, or latitude and longitude coordinates. A map with the area of interest outlined on it would also be helpful.

The States and Territories for which each Mapping Center holds the negatives are shown on the map. Contact the National Cartographic Information Center at the appropriate Mapping Center.

Eastern Mapping Center  
U.S. Geological Survey  
536 National Center  
Reston, VA 22092

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

Rocky Mountain Mapping Center  
U.S. Geological Survey  
Box 25046, Federal Center  
Denver, CO 80225

Western Mapping Center  
U.S. Geological Survey  
345 Middlefield Road  
Menlo Park, CA 94025

