

STATE CARTOGRAPHERS MFFT

In September, both your Editor and Art Ziegler will be heading to Salt Lake City to attend the American Congress on Surveying and Mapping/American Society of Photogrammetry (ACSM/ASP) Fall Conference. Christine has put together a roundtable discussion session titled "Progressive State Surveyor and State Cartographer Programs." Originally the session was going to bring together all three state cartographers for the first time. Unfortunately the Colorado office was the victim of budget cuts, leaving only two state cartographers in the U.S.: Art Ziegler, Wisconsin and Mike Holland, South Carolina. The session will still be unique however. The Colorado participant has been replaced by Harold "Butch" Fiebelman, representing the U.S. Geological Survey's state resident cartographer program.

The state surveyor panel members are: Ferrell Prosser, South Carolina; Bob Myers, Missouri; Jim Brown, Nebraska.

In the days before and after the session she is moderating, Christine will be active in committee meetings and gathering information. So as to not leave the SCO under-staffed for too long, Art is only attending for two days.

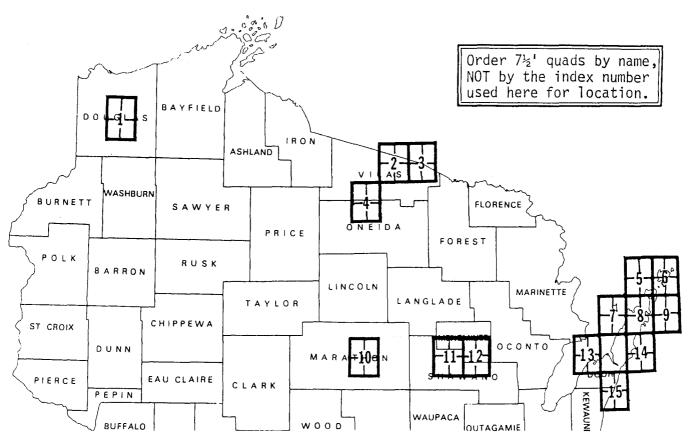
LAND INFORMATION NEWS

The University of Wisconsin Department of Landscape Architecture (along with several other University departments) will soon issue The Wisconsin Land Information Newsletter. This publication will replace the infrequently produced Newsletter of the Westport Land Records Project which was begun in 1981. The WLI Newsletter will report on research projects aimed at the modernization and integration of publicly held land records. Appearing three to five times per year, the WLI Newsletter hopes to stimulate dialogue among concerned individuals and groups and contribute to the development of a network of support for cooperative modernization. Anyone receiving the Wisconsin Mapping Bulletin will AUTOMATICALLY RECEIVE this newsletter. For additional copies or more information please contact Prof. Ben Niemann, 25 Agricultural Hall, Madison, WI 53706, (608) 263-7300.

Murphy's Law of Thermodynamics: Things get worse under pressure.

NEW PRODUCTION FROM U.S. GEOLOGICAL SURVEY

These newly published $7\frac{1}{2}$ ' topographic quadrangle maps (1:24000) 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 53705-4096 (608) 263-7389. Topographic quadrangles are \$2.00 each, plus tax, postage and handling.



1 SOLON SPRINGS 15' TOPO

NE% Bennett '81

NW4 Lyman Lake '75

SW4 Buckety Creek '82

SE4 Solon Springs '82

2 STAR LAKE 15' TOPO

NE% Black Oak Lake '81

NW1 Thousand Island Lake '81

SW4 Star Lake '82

SE¹₄ Stormy Lake '82

3 PHELPS 15' TOPO NE¹/₄ Imp Lake '82

NW1/4 Land O' Lakes '82

SW4 Pioneer Lake '81

SE% Phelps '81

4 MINOCQUA 15' TOPO

NE Sayner '82

NW4 none

SW4 none

SE1 none

5 ELLISON BAY 15' TOPC

NE% none

NW% none

SW1 none

SE4 Ellison Bay '82

6 WASHINGTON ISLAND 15' TOPO

NE¼ none

NW4 Washington Island N.W. '82

SW1 none

SE4 Washington Island S.E. '82

NEW TOPOS, CONT.

7 CHAMBERS ISLAND 15' TOPO
NE¼ Chambers Island '82
NW¼ Chambers Island N.W. '82
SW¼ Green Island '82
SE¼ Egg Harbor '82

8 SISTER BAY 15' TOPO

NE¼ none

NW¼ none

SW¼ Baileys Harbor West '82

SE¼ Baileys Harbor East '82

9 15' TOPO NOT PRINTED

NE4 none

NW4 Spider Island '82

SW4 none

SE4 none

10 WAUSAU 15' TOPO
NEW Wausau East '76
NWW Wausau West '78
SWW Mosinee '82
SEW Peplin '82

11 GRESHAM 15' TOPO

NEW Neopit '82

NWWW Burney Lake '82

SWW Bowler '82

SEW Gresham '82

U. W. - S. P. NEWS

The following information comes from Diane M. Stelzer, Program Assistant in the Department of Geography/Geology at the University of Wisconsin-Stevens Point.

Keith W. Rice has joined the Department of Geography/Geology at the University of Wisconsin-Stevens Point as its new cartographer. A Ph.D. candidate in geography at the University of Kansas, his interests are in the areas of computer-assisted cartography, map perception, remote sensing, and map production.

Mr. Rice is presently working to develop a strong undergraduate program in cartography with an emphasis in computerassisted cartography, computer graphics,

12 SHAWANO 15' TOPO

NE¼ Legend Lake '82

NW¼ Keshena '82

SW¼ Thornton '82

SE¼ Shawano '82

13 LITTLE STURGEON 15' TOPO

NE% none

NW% Peshtigo Harbor '74

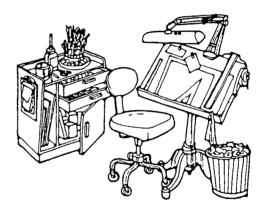
SW% Little Sturgeon S.W. '82

SE% none

14 JACKSONPORT 15' TOPO

NE% none
NW% Jacksonport '82
SW% Jacksonport S.W. '82
SE% none

ALGOMA 15' TOPO
NE¼ Algoma N.E. '82
NW¼ none
SW¼ Algoma '82
SE¼ none



map design and production.

University support has enabled the department to purchase several pieces of computer hardware: an Altek digitizer, a drum plotter, and a dot-matrix printer.

Courses which have been or will be offered in the near future include introductory cartography, map symbolization, introductory and advanced map design and production, computer-assisted cartography, geographic information systems, computer graphics, algorithm development for mapping, and cartographic field techniques.

HOLE TRIBUTE



Governor Earl will soon sign the Antigo Silt Loam into law as the official state soil. This is a very fitting tribute to a man of the soil, Prof. Francis Hole, who retired this spring after a 37-year teaching career at the University of Wisconsin-Madison. Prof. Hole headed the state soil survey for 30 years, was active in the creation of the UW Arboretum and frequently represents the soil as "Terra Loam" in puppet shows and plays he has written.

Prof. Hole has written dozens of articles and books on Wisconsin soils. Many of them contain numerous maps. The list below references most of the map-filed pub-

lications as well as separately published maps. (information from the <u>Bibliography</u> and <u>Index</u> of <u>Wisconsin Geology 1698-1977</u>)

(Dahlstrand, N.P.; Muckenhirn, R.J.) 1947. Soils of Langlade County, Wis.: Wis. Geol. and Nat. History Survey, Bull. 74 (soil series no. 52) 61 p., illus., maps.

(and others) 1950. Soil survey of Richland County: Wis. Geol. and Nat. History Survey, Bull. 62C (soil ser. 45) folder, maps.

(and others) 1952. Soil survey of Grant County: Wis. Geol. and Nat. History Survey, Bull. 62D (soil ser. 46) 14 p., maps.

(and others) 1953. What's in that soil map?: Wis. Geol. and Nat. History Survey, Misc. Rpt., 16 p.

1956. Soil survey of Grant County, Wis.: Wis. Geol. and Nat. History Survey, Bull. 80 (soil ser. 55) 54 p., illus., map.

1956. Soil survey of Waukesha County Wis.: Wis. Geol. and Nat. History Survey, Bull. 81 (soil ser. 56) 63 p., illus., map.

(Schmude, Keith O.) 1959. Soil survey of Oneida County, Wis.: Wis. Geol. and Nat. History Survey, Bull 82 (soil ser. 57) 59 p., illus., maps.

(and others) 1962. Soil survey of Florence County, Wis.: Wis. Geol. and Nat. History Survey, Bull. 84 (soil ser. 59) 140 p., illus., tables, maps.

(Beatty, Marvin T.; Lee, Gerhard B.) 1966. Soil map of Wisconsin: Wis. Geol. and Nat. History Survey, Misc. Rpt., 1 p., map, text.

(and others) 1968. Overlay soil map of Wisconsin: Wis. Geol. and Nat. History Survey, Misc. Rpt., 42 p., explanatory text, 11 maps, scale 1:250,000.

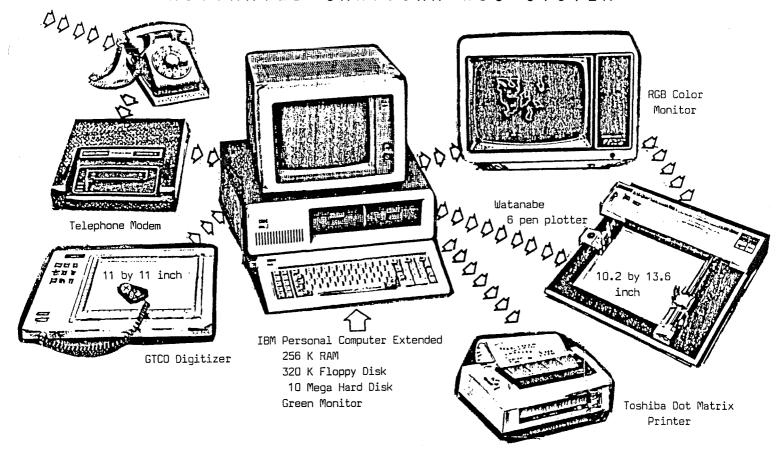
(Beatty, Marvin T.; Klingelhoets, A.J.) 1968. Soil map of Wisconsin: Wis. Geol. and Nat. History Survey, colored wall map, scale 1:710,000.

1974. Soil regions of Wisconsin: Wis. Geol. and Nat. History Survey, scale app. 1:2,730,000, 3 p., text.

1976. Soils of Wisconsin: Wis. Geol. and Nat. History Survey, Bull. 87 (soil ser. 62) 223 p., illus., maps.

1977. Photo-mosaic soil map of Wisconsin, with general soil test and geographic information: Wis. Geol. and Nat. History Survey, scale 1:1,000,000, text.

AUTOMATED CARTOGRAPHIC SYSTEM



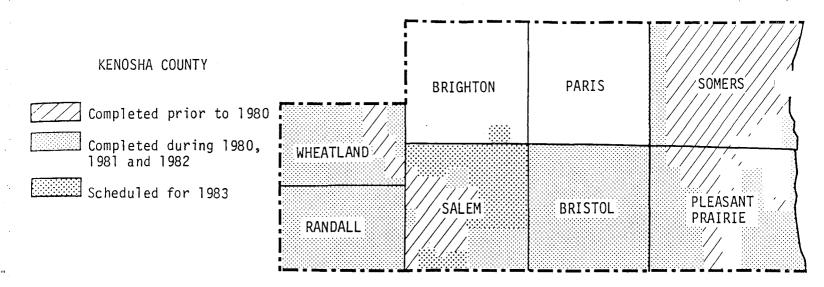
The number of components needed and their compatibility (more often their incompatibility) made the procurement process quite complicated. When complete, the system will include a microcomputer; a flatbed, multicolor pen plotter; an x/y coordinate digitizer; a dot matrix, high speed printer; a color monitor, and a telephone modem connection. The Office used end-of-82/83-fiscal-year funds to acquire a Toshiba high speed printer, an 11" by 11" GTCO digitizer tablet, and a $10\frac{1}{2}$ " by 13" Watanabe 6 color pen, flatbed plotter. With 83/84 funding, the Office is purchasing the central processing unit (CPU), an IBM Personal Computer-Extended. Programming software and additional hardware will be selected during the summer and early fall.

There are four initial applications for the automated cartographic system:

- using the telephone modem connection to go "on line" with several federal agencies to access their information
 by direct computer hookup. These agencies include the National Geodetic Survey (horizontal and vertical control),
 the National Cartographic Information Center (maps and air photos), and the EROS Data Center (remote sensing imagery),
- 2) producing the <u>Wisconsin Mapping Bulletin</u> and other Office publications on the computer with a word processing software package and the printer,
- 3) automation of a major portion of the graphics currently manually prepared for the county cartographic catalog series using the digitizer and the plotter with a mapping software package, and
- 4) with the above software, prepare an initial, small-scale geographic information system (GIS) for the state. The results of this GIS will depend on the system's development and the availability of information for input.

Current plans are to have the APRIL 1984 <u>Wisconsin Mapping Bulletin</u> processed on the system and to produce one cartographic catalog on it by fall 1984. These may be overly optimistic pals, since we haven't yet received the CPU, much less have it "up and running."

we have hired a half-time Project Assistant to manage the system. On August 1st, Mark Wiljanen, a PhD candidate in Geography, will take charge of putting all the pieces together. Future issues of the <u>Bulletin</u> will keep you abreast of our progress, or lack of it.



KENOSHA AND WAUKESHA COUNTY MAPPING AND CONTROL PROGRAMS

Kenosha County began a large-scale topographic mapping and control survey program in 1980. The program continued through 1981 and 1982, with additional areas scheduled to be mapped in 1983. This program is designed to prepare 1 inch equals 200 feet scale, 2-foot contour interval, topographic maps. The maps are to be based on the Southeastern Wisconsin Regional Planning Commission's recommended monumented control survey network, which relates the U.S. Public Land Survey system to the State Plane Coordinate System.

Likewise in 1981, Waukesha County began a new large-scale topographic mapping and control survey program. The program continued in 1982, scheduling additional areas to be mapped in 1983. The Waukesha County program is also designed to prepare 1 inch equals 200 feet scale, 2-foot contour interval, topographic maps.

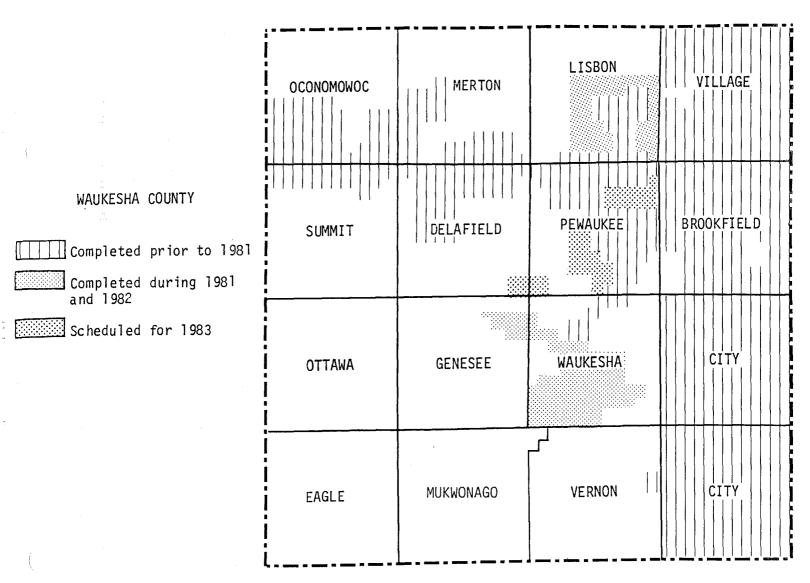
The 1983 Kenosha County mapping program will result in the completion of large-scale topographic maps and control surveys for a total area of 194 square miles, or about 70 percent of the total area of the County. The program will recover, monument, and place on the State Plane Coordinate System, a total of 946 U.S. Public Land Survey section and quarter section corners, or about 79 percent of such corners in the County. Kenosha County provided the basic funding for the mapping and control survey programs. Supplemental funding came from the Wisconsin Department of Natural Resources under the State Floodplain and Shoreland Mapping Program, and from the National Oceanic and Atmospheric Administration under the federal Coastal Management Program.

The 1983 Waukesha County mapping program, together with similar programs completed by certain municipalities within the County, will result in the completion of large-scale topographic maps for a total area of 246 square miles, or about 42 percent of the total area of the County. A total of 1,326 U.S. Public Land Survey section and quarter section corners (about 52 percent) have been recovered, monumented and placed on the State Plane Coordinate System. Waukesha County funded the 1981 and 1982 mapping program, with supplemental funding from the Wisconsin Department of Natural Resources under the State Floodplain and Shoreland Mapping Program. The Village of Sussex provided additional supplemental funding for the 1981 mapping program. The 1983 mapping program is being funded by Waukesha County, with supplemental funding by the City of Waukesha. (continued next page)

SEWRPC is assisting both the Kenosha and Waukesha County Boards by providing necessary contract documents and specifications, as well as the necessary field inspection of the completed control survey monumentation; quality control of the topographic mapping and the land and control survey work; and assistance in obtaining available state and federal grants. SEWRPC staff are also assisting the County by delineating floodplain and shoreland boundary lines on the completed topographic maps.

Both Kenosha and Waukesha County officials hope to complete large-scale topographic maps for the remaining unmapped areas of their counties over the next several years. The large-scale topographic maps will be extremely helpful in many aspects of county and local planning and zoning, in county and local public works engineering, as well as in the private land development process. They represent an important and farsighted capital investment on the part of both counties. Importantly, the maps and survey control provide a foundation for the eventual creation of modern automated land record systems. In 1976 RACINE County became the first county in Wisconsin to complete such a mapping and control survey program.

Source: SEWRPC





Scale 1:80,000

Flown April 22, 1982

Prairie du Chien

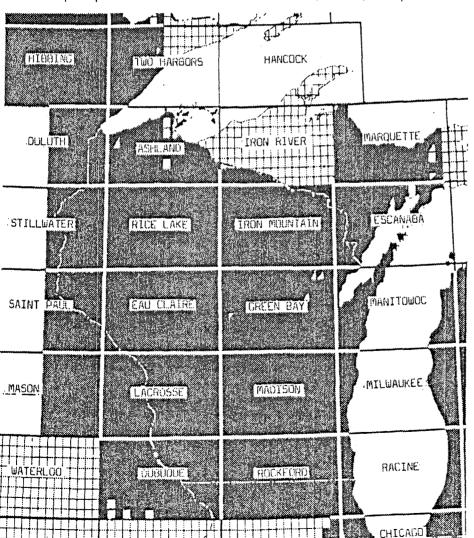
NATIONAL HIGH - ALTITUDE AERIAL PHOTOGRAPHY (v. 8, no. 1, p. 1; no. 4, p. 5)

The National High-Altitude Aerial Photography (NHAP) program sponsored by five federal agencies has made significant progress in acquiring both black-and-white and color infrared aerial coverage of the contiguous 48 states since its inception in 1981. Almost 50% of the United States has aerial coverage as shown on the U.S. Geological Survey index dated July 1, 1983.

The Wisconsin portion of that index shown here indicates that completion is approaching 100%. In the northern part of the state, the Ashland and Iron River quads were completed in the spring of 1983. In this area, and throughout the state, a few isolated no-coverage quads appear due to contractor rejections. U.S.G.S. will complete these areas in the fall 1983 "leaf-off" acquisition program. Wisconsin should have 100% total coverage by the end of 1983.

The coverage is at 1:80,000 scale (1 inch = 6,667 feet) for the black-and-white imagery and at 1:56,000 scale (1 inch = 4,667 feet) for the color infrared imagery. All coverage is stereographic, with flight lines running north and south.

A sample print of the black-and-white, 1:80,000 photo over Prairie du Chien and



the confluence of the Wisconsin and Missis-sippi Rivers appears on the facing page. This imagery was reproduced from a half-tone camera print and doesn't represent the true quality of the original imagery.

The State Cartographer's Office has microfiche indexes of the current NHAP coverage in our National Cartographic Information Center files. We can supply frame and flight numbers, price information, and ordering forms upon request.



COMING EVENTS

WISCONSIN REAL PROPERTY LISTERS ASSOCIATION—September 14-16
Their 31st Annual State Meeting will be held at the Pioneer Inn in Oshkosh.
Highlights of the meeting will include sessions on mapping and panel discussions concerning condominiums. Calumet and Winnebago Counties are co-hosts. For more information contact Donna Hedrich, County Treas. Office, Chilton, WI 53014, 414/849-2361 or Matt Nebl, Winnebago County Courthouse, P.O. Box 2808, Oshkosh, WI 54901, 414/235-2500.

PECORA VIII---October 4-7

"Satellite Land Remote Sensing Advancements for the Eighties" is the theme of the eighth William T. Pecora Memorial Remote Sensing Symposium. It's sponsored by NASA, the National Oceanic and Atmospheric Administration, and the U.S. Geological Survey. Sioux Falls, SD is the site. For more information contact Pecora VIII, P.O. Box 80937, Sioux Falls, SD 57116.

WISCONSIN TOWNS ASSOCIATION---October 10-12

Their 36th Annual State Convention will be held at the LaCrosse Convention Center and Radisson Hotel. For more information contact Ed K. Krueger, Route 4, Box 320, Shawano, WI 54166.

AUTO-CARTO SIX---October 16-21

The sixth international symposium on automated cartography will meet in Ottawa. Direct all inquiries to the Auto-Carto Six Secretariat, Dept. of Geography, Carleton University, Ottawa, Ontario K1S 5B6 Canada.

NORTH AMERICAN CARTOGRAPHIC INFORMATION SOCIETY---October 20-22
The third annual NACIS meeting will be held in Milwaukee. The theme is "Map Information: Collection, Verification, Compilation." See their preliminary program on page 13.

NEBENZAHL LECTURES---October 27-29

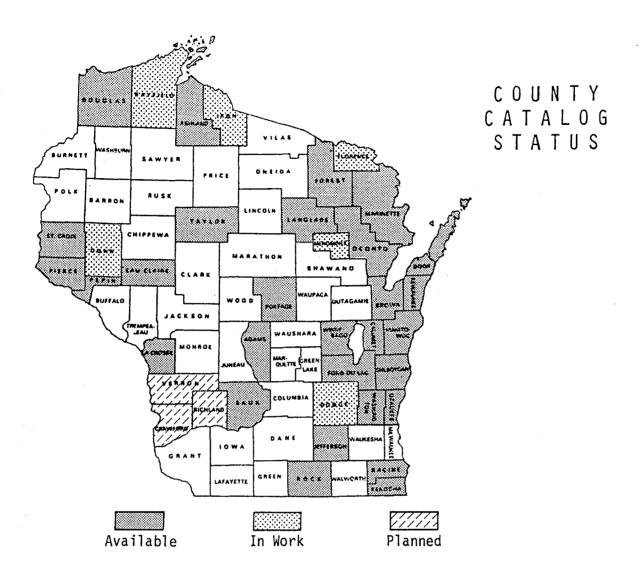
The theme of the Seventh Kenneth Nebenzahl, Jr. Lectures in the History of Carto-graphy at the Newberry Library, Chicago is "Maps in the Making; the Various Sources of Printed Maps." Seating capacity is limited. Apply for reservations to the Office of the Director, The Newberry Library, 60 West Walton Street, Chicago, IL 60610, phone 312/943-9090, ext. 251.

ROBINSON HONORED

Arthur H. Robinson, University of Wisconsin emeritus professor-geography, has been presented the Helen Culver Gold Medal of the Geographic Society of Chicago for his contributions to cartography. The medal, named for a benefactor of the society, was first presented in 1907 to explorer Ronald Amundson. One other University of Wisconsin geographer, Verner C. Finch, was presented the award in 1948. It was last awarded in 1973.

MAP POSTCARDS

Your Editor is building a nice collection of map postcards which are often used as an attractive display. I would welcome any donations. To be truthful I must tell you that the Map Librarian also collects them. I promise to give her all duplicates. Perhaps you could send two?



STAFF DEPARTURES

The entire SCO is sad to say farewell to two of our grand Project Assistants. Beginning August 1st, Laurie Boyer will be footloose and fancy free until she assumes a Teaching Assistantship in Cartography when the fall term begins. Laurie has made great improvements in county catalog appearance and in catalog management since she became Production Manager in 1981. Her boundless energy and enthusiasm will be missed. The SCO is currently recruiting her replacement.

Wendy Ormont has managed the Cartographic Inventory Program since it was begun in 1981. She has seen Federal funding come and go, three field representatives begin and end, and several changes of student hourly support. Through all of this she has kept track of thousands of records efficiently and with a good sense

of humor. The success of the program is largely due to Wendy's excellent performance. Wendy will now concentrate on finishing her Masters degree in Environmental Management, Land Resources. With Wendy's departure the Cartographic Inventory Program comes to a close. A detailed project report will be available in late September.

DANE COUNTY RPC

The people at the Dane County Regional Planning Commission have moved to new quarters while the City-County Building undergoes major expansion and remodeling. Their new address and phone number are Suite 300, 1202 Northport Drive, Madison 53704, (608) 249-9466. They'll be there until the summer of 1984.

NEW MAPS

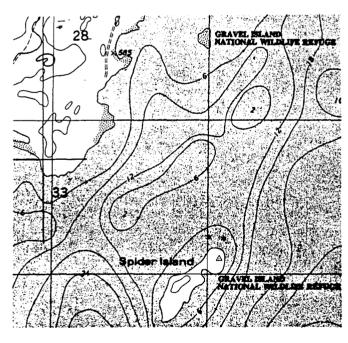
(See related articles on pages 6, 7, 15 and 16.)

SURFACE MANAGEMENT STATUS/MINERAL MANAGEMENT STATUS: MARINETTE, WISCONSIN-MICHIGAN This new map shows the location of public lands and federal mineral ownership. It is part of a series produced by the Bureau of Land Management to map areas of mineral exploration interest which coincide with significant acreage of Federally-owned mineral rights. The map is a valuable aid to recreationists for identifying the location of public lands. The scale is 1:100,000 and the map covers approximately 34 x 49 miles. To order the map, send \$3.25 to BLM, Duluth Field Office, 125 Federal Building, Duluth, MN 55802. A free BLM map index of this series is also available.

AIRBORNE RADIOMETRIC AND MAGNETIC SURVEY OF PARTS OF THE UPPER PENNINSULA AND NORTHERN WISCONSIN

This 72-page report also contains 46 over-size map sheets at a scale of 1:24,000 (1 inch = 2,000 feet). Order Open-File Report OF 83-0195-A from the U.S. Geological Survey Open-File Services Section, Western Distribution Branch, Box 25425, Federal Center, Denver, CO 80225. Microfiche \$26.50; paper copy \$92.

MAP SHOWING UTILITY AND INDUSTRIAL POWER SOURCES IN THE CONTERMINOUS UNITED STATES Compiled by C. M. Shifflet; 1982; two sheets, 42" x 58". Scale 1:2,500,000 (1 inch = 40 miles). The map comes with a 22-page text. Order MF-1392 from the U.S. Geological Survey, Eastern Distribution Branch, 1200 South Eads Street, Arlington, VA 22202. \$2.50 per set.



SPIDER ISLAND, WIS. N4507.5-W8652.5/7.5

1982

WHERE'S SPIDER ISLAND

The U.S. Geological Survey recently produced a $7\frac{1}{2}$ -minute topographic quadrangle in Wisconsin named "Spider Island." A part of this quad is reproduced at left.

The adjacent 15-minute quad to the west of this area showed the land on this new quad as a "bleed out" or bulge on the right margin. No other 15-minute coverage ever existed here.

Do you know where Spider Island is located?

Hint: If you can interpret the U.S.G.S. location code below the name you can find it. (The answer is on the last page of the Bulletin.)



1983 ANNUAL MEETING NORTH AMERICAN CARTOGRAPHIC INFORMATION SOCIETY

Hyatt Regency Milwaukee, WI October 20-22, 1983



MAP INFORMATION: COLLECTION, VERIFICATION, COMPILATION

Preliminary Program

Thursday, Oct. 20

--All-day tour of the University of Wisconsin-Madison Cartographic Facilities: the Cartographic Lab, the Arthur H. Robinson Map Library, and the State Cartographer's Office, including a glacial field trip through the Kettle Moraine State Forest

Friday, Oct. 21

- --Contributed Papers Session
- --Exhibit Review
- -- Map Reproduction Techniques Workshop
- -- "What is a Real Property Lister" Workshop
- --Elementary Surveying Workshop
- -- Map Accuracy Panel Discussion
- --Joint Reception and Banquet*with Mr. George Ritzlin, Chicago, "Antique Maps"
- --Open House*

Saturday, Oct. 22

- -- Tax Mapping Movie and Coffee
- --Business Meeting
- --Exhibit Review
- -- Information Networking
- ---Luncheon* with Dr. Roman Drazniowsky, Director of the Am. Geographical Society Collection, University of Wisconsin-Milwaukee
- --Repeat of Workshops
- --Ethnic Night in Milwaukee

*NACIS is meeting in conjunction with the International Map Dealers' Association.

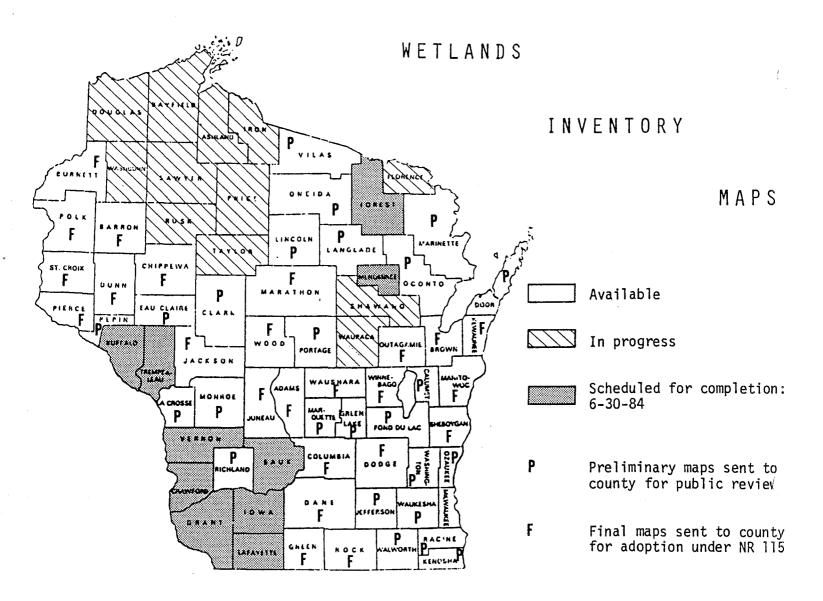
For more information contact:

REGISTRATION

Ronald Bolton NOAA/National Ocean Service 8060 13th Street Silver Spring, MD 20910 301/427-7650

LOCAL ARRANGEMENTS

Christopher Baruth AGS Collection Box 399 UW-Milwaukee Milwaukee, WI 53201 414/963-6282 800/558-8993 (outside Wisconsin)



Source: Wisconsin Dept. of Natural Resources, July 1983

WISCONSIN NATIVE HEADS NCIC

The U.S. Geological Survey recently appointed Alan R. Stevens head of its National Cartographic Information Center. (The SCO is a NCIC affiliate.) Alan will direct the \$3.8 million annual program to gather and disseminate information on the wide range of cartographic products and services available nationwide. NCIC has a staff of more than 50 professional, technical, administrative, and contact personnel. Alan will also provide technical direction to more than 100 additional personnel throughout the country.

Alan, who joined NCIC in 1978, was born in Milwaukee and received a bachelor's degree from the University of Wisconsin-Madison in 1965, a master's degree in engineering in 1969, and his doctorate in 1972. He's a certified professional photogrammetrist.

Alan lives in Reston, Virginia with his wife Karen and their two children. The Editor is sure Alan won't mind if his age is known. He's 41, but doesn't look a day over 29. (Note: The Editor only accepts bribes from personal friends.)

CART LAB NEWS

David Woodward, professor of cartography, accepted a 25% appointment as Director of the University of Wisconsin Cartographic Laboratory (UWCL) effective July 1, 1983. The rest of Dr. Woodward's appointment is taken up with teaching, research, and editorship of the 5-volume History of Cartography project. His address is 443 Science Hall, Madison, WI 53706, (608) 263-3992.

Jim Hilliard is now Associate Director of the UWCL with responsibility for the daily management of the Lab. He can be reached at 385 Science Hall, Madison, WI 53706, (608) 262-1363.

WISCONSIN AUTO TOUR ESCAPE MAPS

The UWCL recently prepared Auto Tour Escape Maps for the Wisconsin Division of Tourism. These maps show 21 different driving tours in the state of Wisconsin. Individual maps include auto routes, points of interest and major attractions associated with ch circular driving tour. They will be published this fall in an 80-page, 2-color, $8\frac{1}{2}$ " x 11" book. There will be no charge for the publication. Interested persons should contact the Wisconsin Division of Tourism, P.O. Box 7606, Madison, WI 53707, (608) 266-7621.

WISCONSIN CHEESE PLANT MAP

The U.W. Cartography Lab has prepared a new map for the Wisconsin Department of Agriculture, Trade & Consumer Protection (WDATCP), depicting the location of 98 cheese plants in Wisconsin. The 2-color map is keyed to the Wisconsin State Department of Transportation state highway map grid for easy reference. It also shows major cities, roads, and hydrography. Size 13" x 14". Free. For a copy, contact Ms. Mae Knowles, Marketing Division, WDATCP, P.O. Box 8911, Madison, WI 53708, (608) 266-7183.

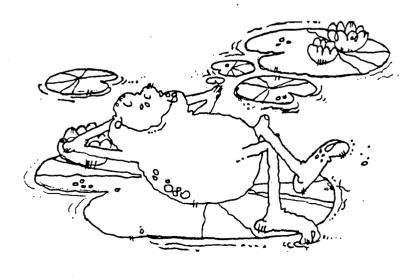


OCONTO COUNTY RECREATION MAP

The Oconto County Recreation Map, prepared by the University of Wisconsin Cartographic Laboratory (UWCL), is an accurate, multipurpose graphic of this beautiful outdoor area in northern Wisconsin. The UWCL developed an easily-understood, recreationuse pictorial symbol system for locating major points of interest, and of sporting, exploring, and relaxing areas. The fullcolor map is at a scale of 1:190,000; printed size is 21 3/4" x 16 3/4" (55.25 cm \times 42.55 cm). For more information, contact Mr. Greg Lamb, University of Wisconsin-Extension, Oconto County Courthouse, P.O. Box 209, Oconto, WI 54153, (414) 834-5322.

1:2,000,000 DIGITAL CARTOGRAPHIC DATA FILES

The UWCL has acquired the U.S. Geological Survey's 1:2,000,000 digitial cartographic data files from the National Atlas Sectional Map covering Minnesota, Michigan and Wisconsin. This data consists of digital files containing political and administrative boundaries, transportation, and hydrography. The UWCL has integrated these files into its computer-mapping system. It is now possible for the UWCL to produce cartographic products, such as base maps, as well as various kinds of spatial analysis using the National Atlas data. It may be combined with other geographically-referenced data for automated analysis and thematic mapping purposes. Contact Jim Hilliard at the above address for more information.



BAY - LAKE MAPPING

OCONTO FARMLAND PRESERVATION

In the fall of 1982, the Bay-Lake Regional Planning Commission initiated a 12-month farmland preservation mapping program for Oconto County at the request of Oconto County Board of Supervisors to prepare farmland maps under the Wisconsin Farmland Preservation Law. Working under the direction of the Oconto County Technical and Citizen's Advisory Committee, Bay-Lake will produce a uniform set of resource base maps for each congressional township within Oconto County. The resource maps will be reproducible and will consist of a land use map, septic tank suitability map, agricultural productivity map, land ownership map, zoning map, and a map showing agricultural lands to be considered for farmland preservation.

TOWN OF WAGNER

At the request of the Town of Wagner, MARINETTE County, Bay-Lake developed a fire number map for the town. The Town of Wagner Fire Number Map is at a scale of 1 inch equals 2000 feet and is easily reproduced in the Bay-Lake office. The Town has ordered and distributed copies of the map to all its volunteer fire fighters in their community and neighboring communities. Updating of the map can be done as a service to the community as additional development occurs.

TOWN OF PORTERFIELD

At the request of the Town Board of Porterfield, MARINETTE County, Bay-Lake prepared a series of maps that the Town needed for the development of a town zoning ordinance. The map series consisted of a base map, land use map, soil series map, septic tank suitability map, and soil capability map for field crops. The maps which were drafted on a mylar material at a scale of 1 inch equals 1320 feet are readily reproducible and can be easily updated.

Source: Bay-Lake RPC

A.S.C.S. UPDATE

The U.S.D.A., Agricultural Stabilization and Conservation Service's (ASCS) aerial photography program for cropland verification hasn't flown any Wisconsin counties recently. Instead of flying its own photography, ASCS is using National High-Altitude Photography (NHAP). NHAP is discussed on page 9 of the Bulletin. Currently ASCS is using NHAP coverage for the counties of DUNN, EAU CLAIRE, JACKSON, ST. CROIX, and TREMPEALEAU. Since the state has nearly 100% NHAP coverage, ASCS doesn't foresee flying any photography here in the near future.



SPIDER ISLAND

If you read the U.S. Geological Survey's locational code correctly, you can expect to find the Spider Island quadrangle at 45° 7' 30" N latitude and 86° 52' 30" W longitude. This puts Spider Island in Lake Michigan, off the coastline of Door County. On a clear day you can see it from Newport State Park.



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REMOTE SENSING BROADCAST

WISCONSIN MAPPING BULLETIN SUPPLEMENT

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SPOT SIMULATION IN WISCONSIN

SPOT Image Corporation conducted a SPOT simulation campaign in the United States in June and July 1983. The purpose of the program is to provide airborne multispectral scanner data over selected U.S. sites to simulate the data to be provided by the SPOT satellite system in terms of spectral coverage and spatial resolution, and to document the application potential of SPOT data which will a globally available in 1985.

Of the approximately 40 sites covered, two were located in Wisconsin. On June 18, 1983 a site 5 km by 12 km on the Chequamegan National Forest in SAWYER County was sampled with a resolution of 10 m in the panchromatic mode and 20 m resolution in a 3-band multispectral mode. This site included a mix of upland and lowland forest, spruce budworm defoliation, cutting activity, wetlands and lakes. Data from this site will be used to assess the forest cover type classification accuracy of SPOT data and its ability to monitor timber harvesting and defoliation levels.

A second site covering west Madison and Middleton in DANE County was flown on July 13 at 20 m resolution. This 10 km by 24 km site contained areas of urban fringe, wetlands, agriculture, open water and limited forest cover. These data will be used for the generic evaluation of SPOT data for land cover

pping and merger with soils data in seographical information systems.

LANDSAT 4 POWER CABLES FAIL

The flexible cables that provide power to the Landsat 4 spacecraft from two of its solar array panels have failed. The cables had been operating intermittently since March. Attempts to alleviate the problem by repositioning the solar panels so that the thermal excursions occurring in orbit would be less extreme were not successful.

Failure of these cables has reduced the available operating power of Landsat 4 to about one-half. It is probable that the problem that caused the failure of the cables exists in the remaining two, although they have not been exposed to as extreme environmental conditions. Fluctuations in a temperature sensor on one of the presently operating solar panels has been noted recently. Similar fluctuations preceded the failure of the other two power cables and mission personnel are concerned that degredation of this cable may occur.

At the present time, full worldwide multispectral scanner (MSS) operational support
is being accomplished within the spacecraft's
existing power budget. However, because
of the greater power demands on Landsat to
operate its TDRS antenna system and its
Ku-band transmitter, it is expected that
Landsat 4 will have limited thematic mapper
(TM) acquisition capability. If a third
power cable fails, there will be little or
no TM data and limited MSS transmissions.

The design of the power cables is under review and will be corrected on Landsat D' before it is launched.

(Source: Landsat Data User Notes)

LANDSATS 2 AND 3

IN STANDBY MODE

On March 31, 1983, Landsats 2 and 3 were placed in a standby mode, effectively putting an end to their data acquisition activities. Both satellites are scheduled for permanent retirement on September 30, 1983. During its lifetime, Landsat 2 acquired a total of 615,720 multispectral scanner (MSS) scenes and 2,916 return beam vidicon (RBV) scenes. Landsat 3's acquisitions during its period of service totaled 324,655 MSS scenes and 266,990 RBV scenes.

Landsat 4, which was launched July 16, 1982, is now the only satellite of the Landsat series that is collecting data. As of May 31, 1983, 12,400 MSS scenes and 200 thematic mapper scenes had been placed in the Landsat data archive.

COMMERCIALIZATION UPDATE

Congress is currently holding hearings on the issue of commercialization of remote sensing satellite systems. Dr. Thomas Lillesand, Director of the U.W. Environmental Remote Sensing Center (ERSC) testified on July 21, 1983 on behalf of the American Society of Photogrammetry before the House Science and Technology Subcommittee on Space Science and Applications and the Subcommittee on Natural Resources, Agricultural Research and Environment.

Lillesand urged "A staged approach to any transfer of the land observing system to the private sector, commencing with the ground segment based upon a strong value—added industry is the most practical approach....This ground segment should include adequate acquisition, archiving, and data distribution capability for all users under the 'open skies policy' at equitable prices."

Lillesand called for continued government research and development and program continuity beyond Landsat D'. He said "the real challenge is to recognize our remote sensing program as a public good and to formulate a policy for the program which will insure future scientific advances, provide creative commercial opportunities and bring remote sensing to a much higher position in our national agenda."

(Source: American Society of Photogrammetry)

TDRS-A IN WRONG ORBIT

in and in the city

The first of the Tracking and Data Relay Satellites, TDRS-A (or TDRS-East), failed to achieve a correct orbit following deployment from the sixth Space Shuttle mission on April 5.

A two-stage Inertial Upper Stage (IUS) rocket was to have boosted TDRS-A into geosynchronous orbit after separation from the lower-altitude orbit of the Shuttle, but the IUS rocket cut off early. TDRS-A was left in an elliptical orbit with an apogee of 21,540 miles and a perigee of 13,540 miles. Its correct orbit is a 22,300-mile circular orbit.

For a short time, the craft was spinning on its roll axis, but NASA controllers were able to stabilize it. The last several weeks have been spent attempting to devise procedures for getting the vehicle into its proper orbit.

The job of moving the satellite to a higher, circular orbit is severely hampered by the fact that during separation from the IUS two thrusters controlling TDRS-A's movement in the roll axis were apparently damaged. Both were on the same side of the spacecraft, rendering the two other roll control thrusters (on the opposite side) essentially useless. NASA ground controllers are moving TDRS-A to a higher orbit using only the 16 remaining reaction control thrusters to accomplish manuevers and maintain altitude control.

Analysis indicates that there is enough propellant on board to carry out the manuever and still maintain the satellite's position over a 10-year period.

The exact causes of the IUS failure are still under study. Unless this is resolved, NASA will not use the IUS to launch TDRS-B. TDRS-B was scheduled for launch as part of the eighth Shuttle mission in August, but this schedule will not be met. (Source: Landsat Data User Notes)

