

# WISCONSIN MAPPING BULLETIN

Volume 9 No. 1 January 1983

A QUARTERLY NEWSLETTER FOCUSED ON  
CARTOGRAPHIC ACTIVITIES IN WISCONSIN

Wisconsin State Cartographer's Office

Established 1973

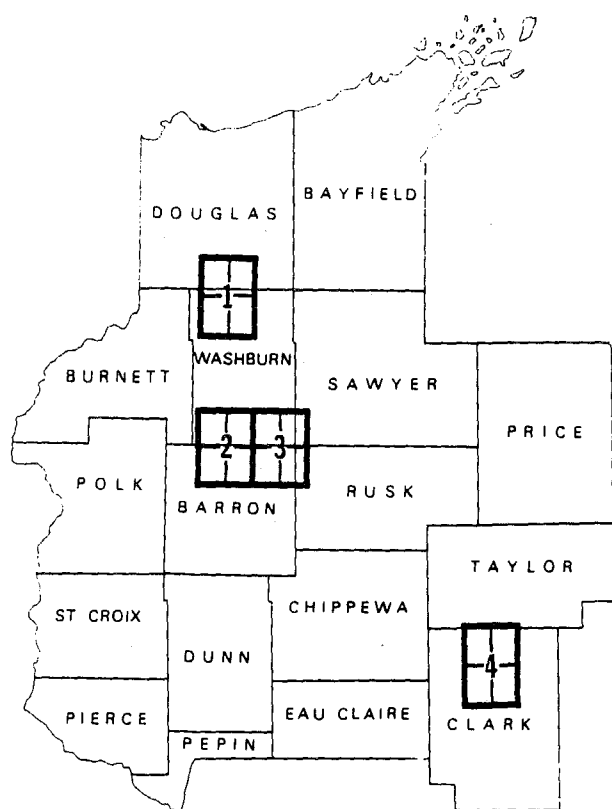
144 Science Hall, UW Madison, WI 53706  
(608) 262-3065

Art Ziegler  
State Cartographer

Christine Reinhard  
Editor

## 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These newly published 7½' topographic quadrangle maps (1:24,000) are listed by their location on the superseded 15' topographic map of the area.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, plus postage and handling.



**1** MINONG 15' TOPO  
NE¼ Gordon '82  
NW¼ none  
SW¼ none  
SE¼ Minong '82

**2** SHELL LAKE 15' TOPO  
NE¼ Sarona '81  
NW¼ Shell Lake '82  
SW¼ Lower Vermillion Lake '82  
SE¼ none

**3** RICE LAKE 15' TOPO  
NE¼ none  
NW¼ none  
SW¼ Rice Lake North '81  
SE¼ Mikana '81

**4** OWEN 15' TOPO  
NE¼ none  
NW¼ none  
SW¼ Mead Lake East '82  
SE¼ Greenwood '82

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

## CART LAB NEWS



*Jim Hilliard, Acting Associate Director of the UW-Cartographic Lab, provides the following information. For details, contact him at 385 Science Hall, Madison, WI 53706, 608/262-1363.*

### Computer-Assisted Map Projections

The UWCL has added World Data Base II (WDBII) to its computer-assisted map projection package. This now allows the Lab to provide 22 different custom-plotted map projections and grids in different aspects at scales to 1:750,000. This data base consists of approximately 6,000,000 points of information and contains computerized cartographic data files of coastlines, hydrography, international boundaries, and U.S. state boundaries. The UWCL can produce custom-plotted projections on order. A Projection Handbook, illustrating the different projections and information concerning the properties of each, can be obtained for \$7.50 (\$10 foreign) by writing the Cartography Lab (address above).

### Cartographic Data Base of Madison

This data base, described in the October 1982 Bulletin, was created for computer-assisted thematic mapping of data geocoded to census tracts and census tract blocks. It is now available. Contact Jim Roeber, UW Planning and Construction, 957 WARF Bldg., Madison, WI 53706.

### City of Madison & Vicinity Map

The UWCL has completed an update of the City of Madison map available from the Univ. of Wisconsin Campus Assistance Center. The map is 38" x 25" and contains an inset of the central Madison area as well as UW campus bus routes and other information of interest pertaining to the UW. The map is based on artwork prepared by the City of Madison Engineering Department and is available from the

UW Campus Assistance Center, 420 North Lake Street, Madison, WI 53706, 608/263-2400. Cost 75¢.

### Small-Scale Women's Transit Authority Map

The Women's Transit Authority (WTA) now has a new map of the city of Madison. The map, prepared by the UWCL, is 8½" x 11" and shows the WTA's area of service. Interested persons should contact the Women's Transit Authority, 306 N. Brooks Street, Madison, WI 53715, 608/256-3710.

## DOT SURVEY WORKSHOP

The Wisconsin Department of Transportation (DOT) conducted a two-day survey workshop in January for the eight transportation districts and the central office. The objectives of the workshop were to discuss pertinent current survey topics and the present and future goals in surveying in DOT. The workshop was held in Madison and included the following major topics:

- survey trucks/vehicles
- photogrammetric control and alignments
- new equipment/demonstrations
- EDMI and total station usage
- traverse and network programs
- survey equipment-evaluation, purchases
- inventory, insurance and maintenance
- monumentation

Mr. John Hohol of Berntsen, Inc., demonstrated new survey monuments to the workshop attendees. Banquet attendees saw two slide presentations: "Central Wisconsin Geodetic Program" by Mr. Jon Neidhold, Survey Supervisor of Wisconsin Rapids, and "Arrowhead Bridge Construction Surveying" by Mr. Dan Peterson, Survey Supervisor of Superior. Mr. Art Ziegler, State Cartographer, was a guest at the banquet. (Bob Holdridge, DOT Special Services)

## REMONUMENTATION FUNDING

A source of revenue to fund the statewide recovery and perpetuation of government corners just may be available if the proper steps are taken. At least that is the hope of Les Van Horn, president of the Wisconsin County Surveyors Association. Les has been developing a file of background data in anticipation of pursuing legislation on the matter. The key to the plan is whether funds might be used from the Forestry Mill Tax provided for in Chapter 70.58 of the Wisconsin Statutes.

The need for the recovery and remonumentation of government corners had been pitifully neglected in Wisconsin for over a hundred years. In 1969 the Wisconsin Society of Land Surveyors (WSLS) was successful in convincing the legislature to require that 5% of all such corners in each county be reestablished each year. During the following year, the law was modified from a "shall establish" to a "may establish". Despite this emasculation of the law, some counties voluntarily proceeded with monumentation programs. Racine County, for example, claims to be the first county in the nation to have all its corners remonumented and a network of horizontal and vertical control run between them. Nevertheless, there remain thousands of corners throughout the state that need to be reestablished. Currently the property owner who needs a survey must first pay for the control corners. This should definitely be the obligation and expense of the public, not the private owner.

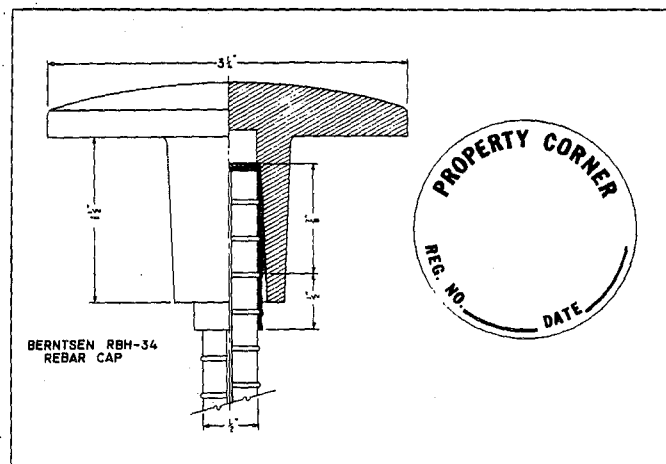
Interestingly, an Attorney General's opinion (AG 35-77) indicates that if a county board approves a resurvey (remonumentation program) under the present statute, the statute then requires completion of the resurvey within 20 years. It also requires that the monuments will be perpetuated and maintained.

Chapter 70.58 of the Statutes, the source of funding, calls for expenditures for surveying under Chapter 16.965, which identifies the use of State Planning and resources management; it also allows for the contracting with other agencies in the determination of the scope and character of the survey.

Van Horn's figures are based on a 1981 State income from the Forestry Tax of \$5,200,000. Unknown to most tax payers, this tax is paid by all property owners at the rate of 2 mills per thousand dollars of equalized assessed value, and collected by the counties. Twenty percent of these funds will be sought, and would be distributed to counties in proportion to the number of government corners in each county.

The top priority in a series of projects would be the recovery and perpetuation of the corners, followed by control surveys, aerial surveys and mapping, and ultimately the development of a computerized land data system.

The WSLS plans to join the County Surveyors Association in introducing appropriate legislation. Preliminary drafts make the plan quite acceptable to counties that have already begun such projects. (source: WSLS Newsletter)



## NEW GEODETIC CONTROL FROM N. G. S.

During 1982, the State Cartographer's Office received horizontal and vertical geodetic control for various locations in the State of Wisconsin, with some information extending into the State of Minnesota. Two blocks of information were "final adjustments"; the remainder were "unadjusted field data." The National Geodetic Survey (NGS) has made a major improvement in this data by adding vertical information to many horizontal control stations. However all the information received on vertical levelings gives the elevation in meters and there are no conversions to feet.

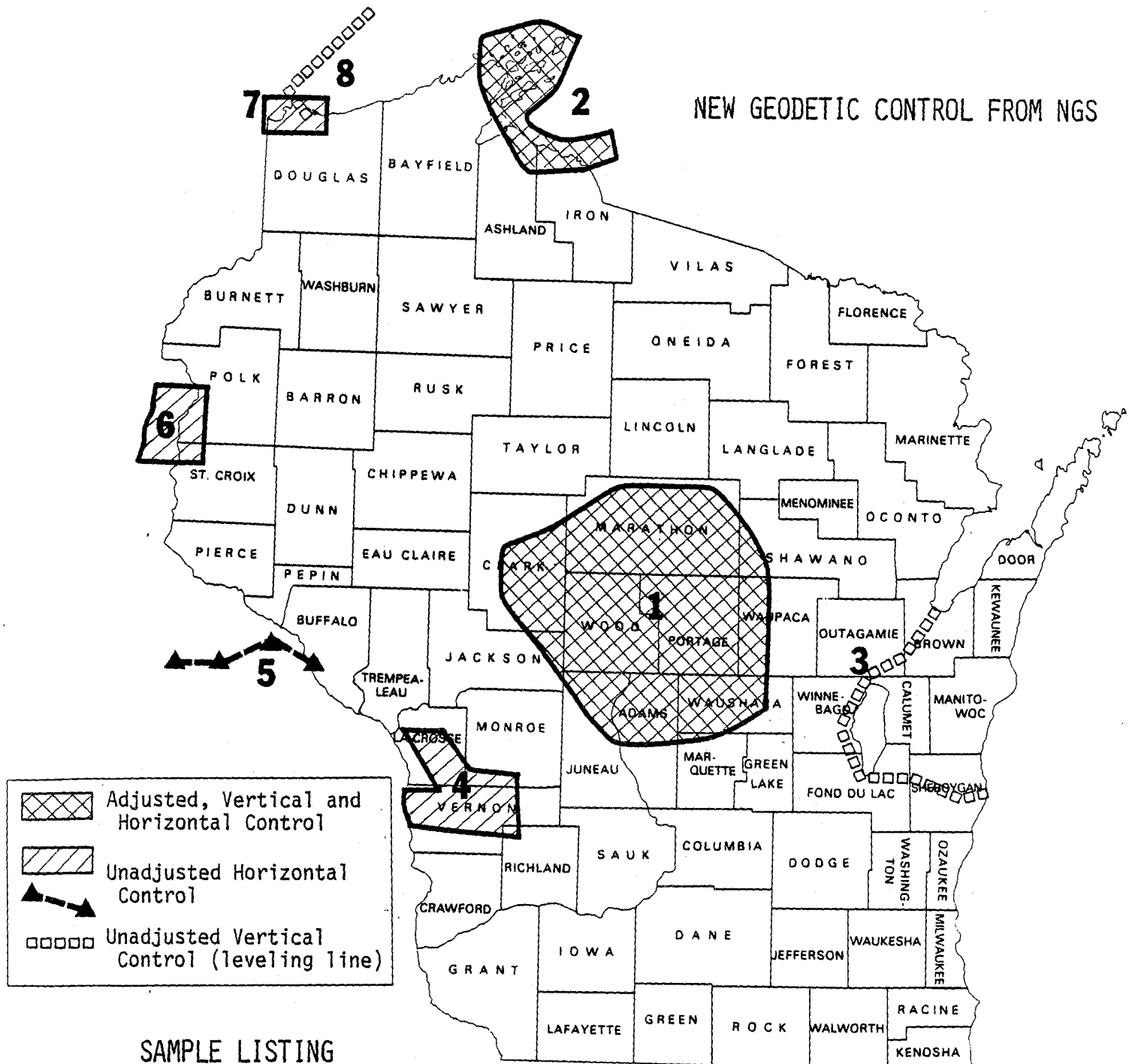
The graphic on the facing page illustrates the location of the control data. The Office is currently formatting the final adjustments into the standard 1:250,000-scale index sheets and organizing it by the 30' x 30' quadrangle designation. We've included a sample of the alphabetical listing for a portion of the control in the Apostle Islands area.

The following descriptions indicate the type of geodetic control now available. The number indicates the area shown on the facing map.

1. VICINITY OF WISCONSIN RAPIDS, no. G16423, a block of 113 new or revised geodetic control points, both horizontal and vertical, in the center of the state. This control is a final adjustment. The project was a cooperative effort with the Wisconsin Department of Transportation and is considered a major improvement in geodetic control for this area.
2. APOSTLE ISLANDS, no. G16122, a block of 48 new or revised geodetic control stations, both horizontal and vertical, in the Apostle Islands area and the adjoining coastline adjacent to the Upper Peninsula of Michigan. This control is a final adjustment.
3. GREEN BAY VIA OSHKOSH TO SHEBOYGAN, no. L24590; this is an unadjusted field data leveling line which starts at Green Bay, goes down to the Fox River, around the west side of Lake Winnebago, and through Fond du Lac to Sheboygan.
4. LA CROSSE AND VIROQUA, no. G16271, a block area of unadjusted field data horizontal and vertical control in portions of La Crosse, Monroe and Vernon Counties.
5. ZUMBRO FALLS TO WABASHA, no. G16453, a line of unadjusted horizontal control on which only the last two stations are in Wisconsin.
6. NORTH HALF WASHINGTON COUNTY (MN), no. G16210, a block of unadjusted field data horizontal and vertical control; the bulk of it falls in Washington County, MN, however some control extends across the St. Croix River into Polk and St. Croix Counties.
7. DULUTH - SUPERIOR HARBOR, no. G16956, a block area of unadjusted field data horizontal and vertical control in the Superior-Duluth area.
8. SUPERIOR, WI VIA DULUTH TO TWO HARBORS, MN, no. L24463; this unadjusted field data leveling line starts in Superior and extends to Two Harbors, MN along the north shore of Lake Superior.

For specific information on the new geodetic control contact this Office at (608) 262-3065.

# NEW GEODETIC CONTROL FROM NGS



## SAMPLE LISTING

US DEPARTMENT OF COMMERCE - NOAA  
NOS - NATIONAL GEODETIC SURVEY  
ROCKVILLE MD 20852 - MAR 1979

ALPHABETICAL INDEX TO  
HORIZONTAL CONTROL DATA  
NORTH AMERICAN DATUM 1927

LAT SPAN  
LON SPAN  
DIAGRAM--

| PAGE | STATION NAME              | YEAR<br>ESTABLISHED | LAST<br>RECOV | STATION ORDER AND GEODETIC POSITION |                   | ELEV<br>(METERS) |
|------|---------------------------|---------------------|---------------|-------------------------------------|-------------------|------------------|
|      |                           |                     |               | LATITUDE                            | LONGITUDE         |                  |
| 18   | A 133                     | 1978                |               | 46° 39' 56.38917"                   | 90° 2' 45.68062"  | 189.5460         |
| 47   | AMNICON                   | 1978                |               | 46° 51' 37.50346"                   | 90° 35' 24.70762" | 187.7747         |
| 45   | ATWOOD                    | 1978                |               | 46° 52' 50.83915"                   | 90° 46' 15.87888" | 183.7481         |
| 5    | BAYFIELD DNR RELAY TOWER  | 1978                |               | 46° 49' 40.19164"                   | 90° 50' 36.93969" |                  |
| 6    | BAYFIELD LOT              | 1978                |               | 46° 50' 3.21800"                    | 90° 51' 4.91531"  |                  |
| 31   | BAYFIELD LOT D USGS 1939  |                     | 1977G         | 46° 50' 3.21832"                    | 90° 51' 4.91529"  | 415.1197         |
| 4    | BAYFIELD USCG RELAY TOWER | 1978                |               | 46° 49' 54.85419"                   | 90° 50' 47.59643" |                  |
| 29   | BAYFIELD 1953             |                     | 1978G         | 46° 50' 3.27506"                    | 90° 51' 5.61032"  | 414.4327         |
| 41   | BEACH                     | 1978                |               | 46° 55' 52.46310"                   | 90° 55' 32.58150" | 183.1540         |
| 46   | BIG BAY                   | 1978                |               | 46° 47' 41.87958"                   | 90° 39' 6.75161"  | 186.9019         |

## NEW MAPS

### STATE ROAD MAP

A new, official state highway map is now available free-of-charge from the Wisconsin Department of Transportation. It is the first map since 1938 to not have a photo of the governor on it; instead there's a picture of the State Capitol. The new map has less traffic law information and more city inserts, including a new detailed map of downtown Milwaukee. There's more state park information too. The map measures 26" x 30" and is sent folded. Request from Document Sales, D.O.T., P.O. Box 7713, Madison, WI 53707, 608/266-8921.

### WISCONSIN EARTHQUAKE HISTORY

Wisconsin has had 16 earthquakes from 1899 to 1977. A seismicity map, recently published by the U.S. Geological Survey, shows the dates, locations, and magnitudes of the quakes.

The USGS map contains a chronological list of reported, felt earthquakes that occurred in the state prior to 1965, plus those recorded between 1965 and 1977 and registering more than magnitude 2.5 on the Richter Scale. Since 1977, the USGS has not received any reports on earthquakes in Wisconsin that were strong enough to be felt.

According to Carl Stover, a geophysicist at the USGS National Earthquake Information Service, Golden, Colo. and the principal compiler of the series, "The map can be used as a starting point by local, state and national planners and administrators in the analysis of environmental impacts on projects, in land use planning, in the siting of power plants and other important facilities, in establishing earthquake insurance rates and policies, and for other planning purposes in which earthquake history and probability of occurrence are a factor."

Copies of the 39" by 24" map, including marginal text and tables, titled "Seismicity Map of the State of Wisconsin," by C.W. Stover, B.G. Reagor, and S.T. Algermissen, and published as USGS Miscellaneous Field Studies Map MF-1229, may be purchased for \$1.25 each from the Branch of Distribution, Maps Section, USGS, 1200 South Eads St., Arlington, VA 22202. Orders must specify the map identification number (MF-1229) and include check or money order payable to the U.S. Geological Survey.

### LAND USE/LAND COVER DUBUQUE

Open-file Report 82-0024, Land use and land cover and associated maps for Dubuque, Iowa, Illinois, Wisconsin, consists of one map coded for statistical data development and keyed to the USGS 1:250,000 Dubuque topographic map. Also included is one black-and-white copy of the Dubuque cultural base (no contours). Order for \$3.25 from the U.S. Geological Survey, Mid-Continent Mapping Center, NCIC-M, 1400 Independence Road, Rolla, MO 65401.

### LAND USE/LAND COVER RACINE

Open-file Report 82-0229, Land use and land cover and associated maps for Racine, Michigan, Wisconsin, Illinois, is coded for statistical data development and is keyed to the USGS Racine 1:250,000 topographic map. A black-and-white copy of the Racine cultural (no contours) base is also included. Order for \$3.25 from the USGS Mid-Continent Mapping Center (address above).



continued

## NEW MAPS, continued

## BEDROCK MAP

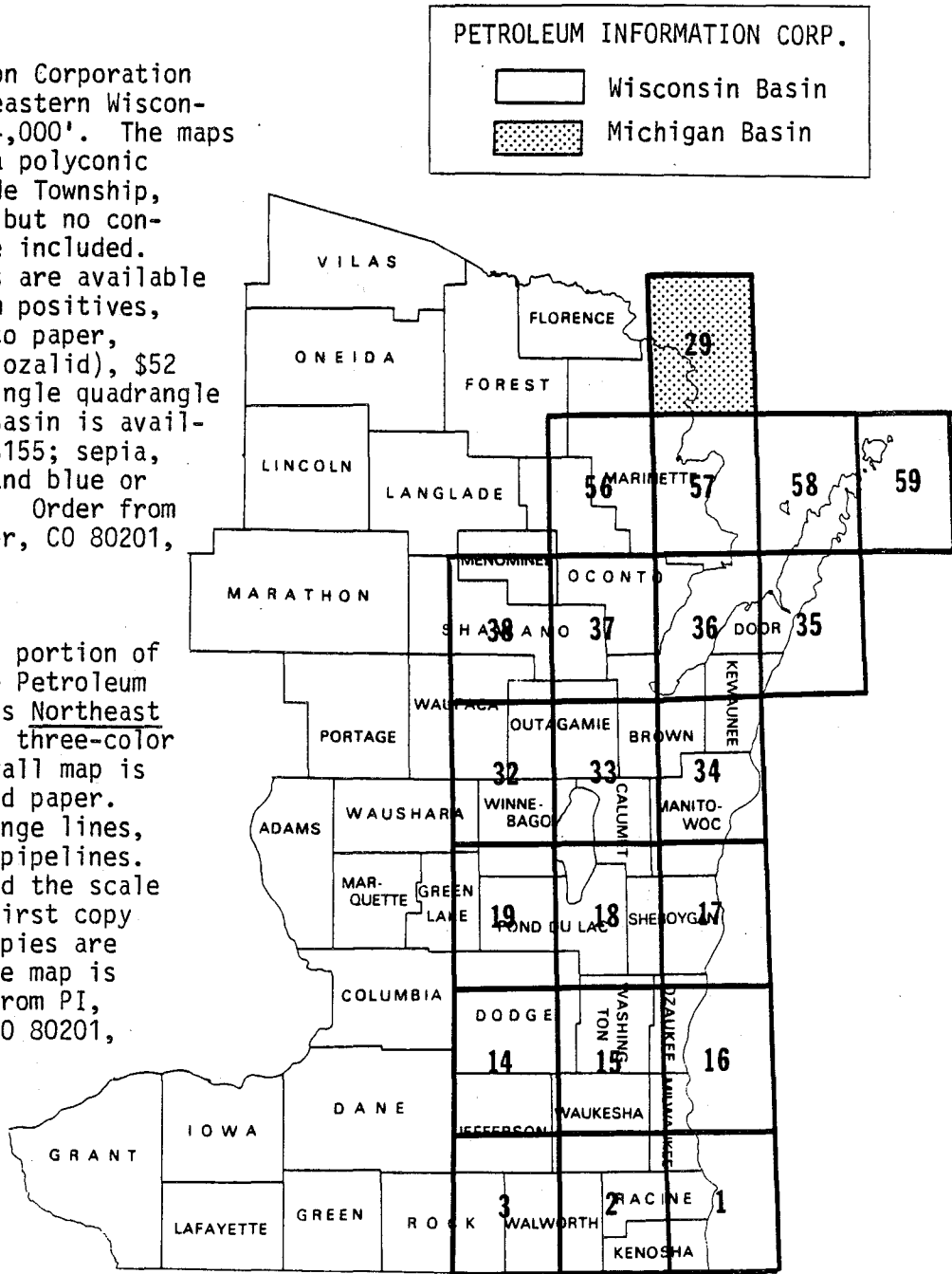
The Wisconsin Geological and Natural History Survey (WG&NHS) has just released Bedrock Geologic Map of Wisconsin, 1982. The new state map is based on new field data that's been collected since 1976. Authors Mike Mudrey, Bruce Brown and Jeff Greenburg compiled information from 60 sources. The 1:100,000-scale map shows the Precambrian shield in great detail for the first time. The map sells for \$6.00 plus sales tax. An additional \$1.70 is required for shipping in a mailing tube. Contact Map Sales, WG&NHS, 1815 University Ave., Madison, WI 53706 for more information, phone 608/263-7389.

## BASE MAPS

The Petroleum Information Corporation produces base maps for eastern Wisconsin at a scale of 1" = 4,000'. The maps are 30' quadrangles on a polyconic projection. They include Township, Range and Section lines but no contours. No well data are included. The Wisconsin Basin maps are available in several formats: film positives, \$148; high-contrast photo paper, \$66; blue or blackline (ozalid), \$52 (price per map). The single quadrangle that's in the Michigan Basin is available in film positive, \$155; sepia, \$92; mylar sepia, \$98; and blue or blackline (ozalid), \$54. Order from PI, P.O. Box 2612, Denver, CO 80201, 303/740-7100.

# OIL & GAS WALL MAP

All but the northwestern portion of Wisconsin appears on the Petroleum Information Corporation's Northeast Area Oil & Gas Map. The three-color oil and gas production wall map is printed on plastic coated paper. It shows Township and Range lines, oil and gas fields, and pipelines. It measures 42" x 56" and the scale is 1" = 16 miles. The first copy costs \$70; additional copies are \$45. A reproducible base map is also available. Order from PI, P.O. Box 2612, Denver, CO 80201, 303/740-7100.



## WSLS OFFERS BLM MANUAL

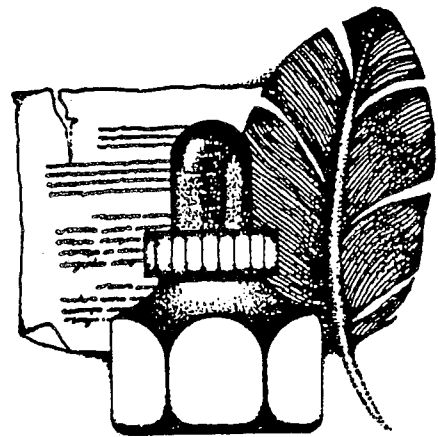
One of the finest manuals ever produced on surveying will soon be made available for sale by the Wisconsin Society of Land Surveyors. It is entitled, Public Lands Surveying-A Casebook. The manual was originally produced by the training staff of the Bureau of Land Management. The original is an impressive book, 22" wide and 17" high. The Society has had it reduced to a more manageable size of 17" x 13".

The manual is full of interesting and informative examples of surveying problems relating to the subdivision of sections, riparian rights, monumentation and many other subjects. It is rich with maps, charts and diagrams.

The original manual sells for \$150 and with a slide-tape cassette for \$300. WSLS proposes to sell it to non-members for \$75 plus shipping. For more information contact Harold Charlier, 2935 Coventry Lane, Waukesha, WI 53186. (source: WSLS Newsletter)

## BASELINE CALIBRATION REPORT

The Wisconsin Society of Land Surveyors has reproduced 500 copies of the updated National Geodetic Survey report on Wisconsin's 8 calibration baselines. The original measurements were updated and verified in 1981 and the results published in November 1982. The WSLS edition has added covers and holes punched for placement in three-ring binders. Copies are available for sale to non-members at \$10 each. Contact Harold Charlier, 2935 Coventry Lane, Waukesha, WI 53186 for more information (source: WSLS Newsletter)



## SHS MAP CURATOR

The State Historical Society (SHS) of Wisconsin has a new map curator, Michael Edmonds. He replaces Mike Fox who is now a full-time archivist with the SHS. Michael's position is actually 50% Map Curator and 50% Rare Books Librarian. His training is primarily in rare books; he came to Madison from 2½ years with the Rare Books Dept. of Boston University. Michael is rapidly learning what types of maps are in the collection by answering inquiries. He's most interested in maps as objects of art and as vignettes of printing and drafting techniques.

The SHS's Archives Division emphasizes the Old Northwest. It contains a complete set of county atlases produced prior to 1900. It also has a great number of bird's eye views of 19th-century Wisconsin communities. Other resources include rare pre-1800 maps by European cartographers, early territorial and state maps, and Sanborn Insurance Maps for urban areas.

Michael Edmonds can be reached in the morning, 8:30-12:15, at 608/262-5867 or at 608/262-3338. Write to him at the Archives Division, State Historical Society, 816 State Street, Madison, WI 53706.



## GEOGRAPHIC NAMES

The Geographic Names Information System (GNIS) consists of name entries with information about the feature name, feature category, its geographic location by coordinates, county, and USGS topographic maps. The name file was developed from published 7.5-minute topographic quadrangles. In areas where 7.5-minute quadrangles have not been published, 15-minute quadrangles or 1:250,000-scale maps provided basic name data.

Alphabetical Finding Lists are now available. These lists consist of spiral-bound computer printouts of name files. Included with each State list are definitions, the Federal Information Processing Standards (FIPS) code designation, quadrangle map name in alphabetical order and also numerical sequence, and alphabetical listings with coordinates. The file is also available in microfiche. The Wisconsin printout is \$29; the microfiche is \$2. (See sample of printout below.)

GNIS was developed by the Geographic Names Information Section, Branch of Geographic Names, Office of Geographic Research, National Mapping Division. The printout and/or the microfiche may be ordered from:

U.S. Geological Survey, NCIC  
507 National Center  
Reston, Virginia 22092  
(703) 860-6039.

Prepayment is required. Prices are subject to change.

| NAME                   | FEATURE CLASS | STATE COUNTY | COORDINATE       | BGN  | ELEV FT | SOURCE          | MAP       |
|------------------------|---------------|--------------|------------------|------|---------|-----------------|-----------|
| Cat Island             | island        | 55003        | 470048N0903332W  |      |         |                 | 0004 0011 |
| Cat Lake               | lake          | 55007        | 463113N0912241W  |      |         |                 | 0043      |
| Cat Lake               | lake          | 55099        | 454737N0903929W  |      |         |                 | 0209      |
| Cataract               | ppl           | 55081        | 440516N0905032W  |      | 847     |                 | 0799      |
| Cataract Lookout Tower | locale        | 55081        | 440125N0904917W  |      | 1365    |                 | 0799      |
| Catawba                | ppl           | 55099        | 453211N0903147W  |      |         |                 | 0294      |
| Catawba Cemetery       | cem           | 55099        | 453148N0903221W  |      |         |                 | 0294      |
| Catfish Bar            | bar           | 55109        | 445403N0924607W  |      |         |                 | 0500      |
| Catfish Lake           | lake          | 55113        | 460532N0910642W  |      |         |                 | 0132      |
| Catfish Lake           | lake          | 55125        | 455404N0891120W  |      | 1616    |                 | 0182      |
| Catfish Point          | cape          | 55125        | 460042N0895047W  |      |         |                 | 0142      |
| Catfish School         | school        | 55025        | 430932N0892408W  |      |         |                 | 1015      |
| Catfish Slough         | gut           | 55043        | 425445N0910819W  |      |         |                 | 1056      |
| Cathaline Lake         | lake          | 55125        | 461459N0894728W  |      |         |                 | 0114 0092 |
| Catharine Pass         | channel       | 55093        | 443421N08922726W |      |         |                 | 0638      |
| Cather Lake            | lake          | 55017        | 451643N0912813W  |      | 1147    |                 | 0371      |
| Catherine Lake         | lake          | 55031        | 462038N0913318W  |      | 1154    |                 | 0078      |
| Catherine Lake         | lake          | 55051        | 461341N0895738W  |      | 1610    |                 | 0113      |
| Catherine Lake         | lake          | 55125        | 460402N0890018W  |      |         |                 | 0148      |
| Catlin Creek           | stream        | 55031        | 462252N0914707W  |      |         | 462516N0914823W | 0058      |
| Cato                   | ppl           | 55071        | 440834N0875140W  |      | 863     |                 | 0788      |
| Cato Falls             | falls         | 55071        | 440537N0875321W  |      |         |                 | 0822      |
| Cato Heights Cemetery  | cem           | 55071        | 440822N0875143W  |      |         |                 | 0788      |
| Cattail Lake           | lake          | 55113        | 460723N0905647W  |      |         |                 | 0133 0105 |
| Cattail Ridge          | ridge         | 55063        | 434805N0910124W  |      |         |                 | 0859      |
| Cattail Valley         | valley        | 55057        | 434606N0900327W  |      |         | 434155N0900234W | 0867 0897 |
| Cattail Valley Creek   | stream        | 55057        | 434604N0900327W  | 1969 |         | 434155N0900234W | 0867 0897 |
| Cattaraugus Cemetery   | cem           | 55039        | 433902N0884157W  |      |         |                 | 0908      |
| Cattaraugus School     | school        | 55039        | 433916N0884139W  |      |         |                 | 0908      |
| Catwillow Creek        | stream        | 55041        | 453604N0883417W  |      |         | 453821N0883242W | 0310 0268 |
| Caucut Valley          | valley        | 55123        | 433839N0903219W  |      |         | 433934N0903040W | 0893      |
| Cave Creek             | stream        | 55093        | 444330N0921914W  |      |         | 445116N0921852W | 0596 0550 |
| Cave Lake              | lake          | 55083        | 451509N0883552W  | 1960 | 1255    |                 | 0394      |
| Cave Point             | cape          | 55029        | 445551N0871024W  |      |         |                 | 0545      |
| Cave Rock              | pillar        | 55081        | 435415N0904203W  |      |         |                 | 0832      |

## SCALE CALCULATOR

A German company is distributing a free air photo/mapping scale calculator as a promotional offer. The pocket-size plastic and cardboard calculator can easily determine the recommended relationships between air photo contact scales and mapping scales, as opposed to best attainable vertical intervals and spot height accuracies.

A separate section shows, for various contact scales of photography, the necessary flying height using 152mm (6 in.) and 88mm (3.5 in.) lenses, width of flight strip, coverage of photo, forward gain at 60% overlap, side gain at 30% overlap, and maximum stereo model coverage. It also includes typical mapping formats and a table of useful conversion factors.

It can be obtained by requesting the "ASD Photography/Mapping Scale Calculator," free of charge, from Air Survey and Development GmbH (Att: Mr. Spirandelli), Praunheimer Landstr. 32, P.O. Box 930147, 6000 FRANKFURT AM MAIN 93, Fed. Rep. of Germany.



## ARMY/XEROX COLOR COPIER

The U.S. Army, in conjunction with the Xerox Corp., is developing a four-color map printer that will operate on laser technology and electrostatic principles. Some \$6.4 million is being invested in the project, to create what is called the first technological breakthrough in combat map production since the introduction of offset presses before World War II. The first advanced development prototype is planned for this year.

The Quick Response Multicolor Printer, or QRMP, as the unit is known at U.S. Army Engineer Topographic Laboratories, is a van-enclosed color copier that will be able to reproduce 24 x 30-inch maps from color originals, which the unit itself scans. Image resolution is up to 800 lines per inch, and registration of colors is held within 0.005 inches.

The QRMP operation involves charging a selenium-coated drum with a blanket positive electrostatic charge. The charged drum is exposed to a colored map. One by one, each of the four dry-toners (magenta, cyan, yellow, black), is applied to the drum. The negatively charged toner, attracted to the positively charged image areas, is then transferred to the paper by contact with the drum. The composite image is then fused and permanently bonded to the paper. The scanning and writing operations are virtually instantaneous, according to those involved with the project. (source: *In-Plant Printer*, Northbrook, IL)

## UPDATES

### SPECIAL SCIENTIFIC AREAS MAP

The Wisconsin Dept. of Administration, Bureau of Coastal Management has not been able to print the map of special coastal areas prepared by the UW-Cartographic Lab. Al Miller, Program Coordinator, says printing it is too expensive and it's uncertain as to when it will be published. (*reference v. 8, no. 4, p. 3*)

### PEPIN COUNTY

The Pepin County Cartographic Catalog is now available. Please call Brenda at the State Cartographer's Office, 608/262-3065 for a copy.

DOUGLAS County will be available at the beginning of March. (*reference v. 8, no. 4, p. 7*)

### D.O.T. AIR PHOTO PRICES RISE

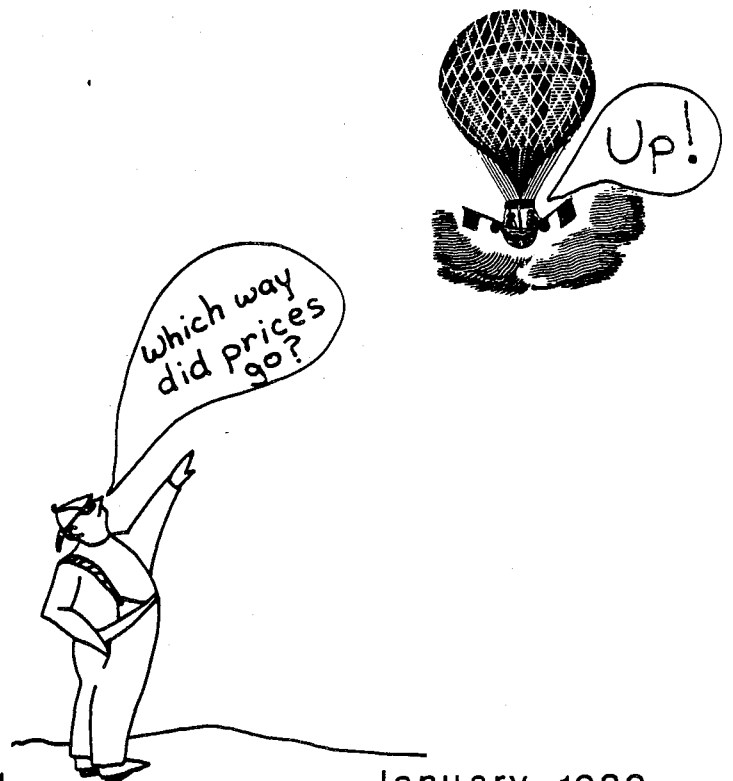
As of January 1st, the State Department of Transportation is charging more to produce the photographs taken for the unified, statewide aerial photographic acquisition program flown during the summers of 1978 and 1979. The black-and-white infrared air photos were primarily used for forest inventory, but have become quite popular for many other uses.

Tom Carlsen, chief of DOT's Special Services Section, said "Each photo covers four square miles at the contact print scale of one inch to 1667 feet (9" x 9") or the enlargement scale of one inch to 400 feet (30" x 30"). In 1982 nearly 16,000 prints were sold."

A contact print now costs \$3.50 rather than \$2.60; diazo paper print enlargements are \$2 instead of \$1.25; and film positive enlargements cost \$24 instead of \$18. The mailing charge has been raised from \$1 to \$2 per order, while the \$1.50 handling charge has been dropped. Brochures containing information about the aerial photographs are available at DOT district offices. Information may also be obtained by writing to DOT Special Services, P.O. Box 7916, Madison, WI 53707, 608/266-0309. (*reference v. 7, no. 2, p. 1*)

## LAND DATA SEMINAR

The Southern Lake Michigan Section of the American Congress on Surveying and Mapping and The Laboratory for Cartography and Spatial Analysis of Northern Illinois University's Department of Geography held a one-day seminar on November 17th, "THE EMERGENCE OF MODERN LAND DATA SYSTEMS IN THE SOUTHERN LAKE MICHIGAN REGION". Experts from Chicago Aerial Survey, A.O. Smith Corp., Indiana State University, Northern Illinois University, the National Geodetic Survey, University of Wisconsin, and Dane Co., Wisconsin discussed the political, technical, and institutional aspects of creating an integrated multi-purpose system. Participants received .6 Continuing Education Units as well as a wealth of pertinent information. The success of this seminar has encouraged the Southern Lake Michigan Section to offer another in the next two years. (*Christine Reinhard, SLMS secretary*)

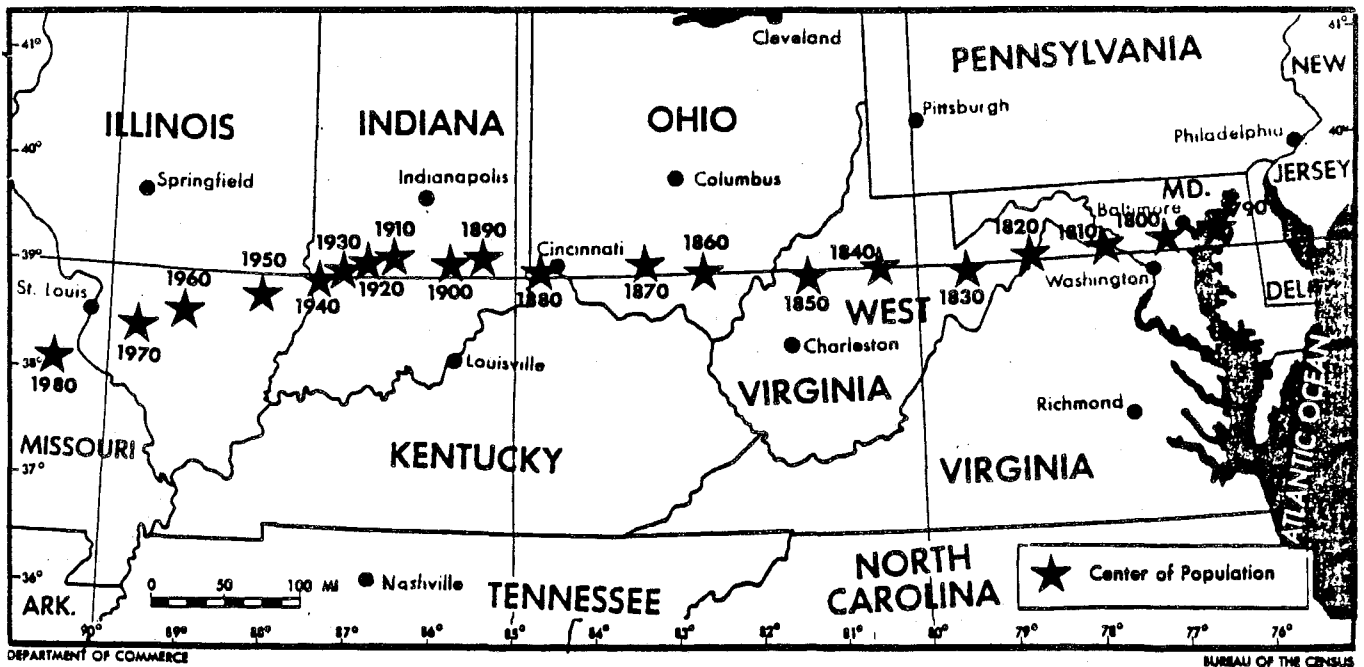


## POPULATION CENTER MOVES WEST

It took 190 years, but the U.S. population center has finally crossed the Mississippi River. Based on the 1980 census, the new center of population is in a wooded area a quarter mile west of the city of De Soto in Jefferson County, Missouri. The city is named for Hernando de Soto, who discovered the Mississippi in 1541. The Mississippi River is 16.8 miles east of this point.

The Bureau of the Census defines the center of population as the point at which an imaginary, flat, weightless, and rigid map of the United States would balance if 226,545,805 weights of identical value were placed on it to represent the location of each person counted on Census Day, April 1, 1980. A new population center is determined after each decennial census.

The 1980 center of population is 47.1 miles west and 22.5 miles south of the 1970 center near Mascoutah, Illinois, in St. Clair County. Census Bureau geographers pinpointed the exact spot at latitude  $38^{\circ} 8' 13''$  N and longitude  $90^{\circ} 34' 26''$  W. The center has shifted about 750 miles west and 80 miles south of its first location near Chestertown, Maryland, 23 miles east of Baltimore.



## COMMEMORATIVE STAMP

The American Congress on Surveying and Mapping is supporting a proposal that the U.S. Postal Service issue a commemorative stamp in 1985 to mark the 200th anniversary of the establishment of the rectangular Public Land Survey System (of which Wisconsin is a part). The postage stamp proposal has been endorsed by Sen. John Warner (R-Virginia), the American Society of Photogrammetry, the U.S. Forest Service, the National Geodetic Survey, and the U.S. Geological Survey. For more information contact John Palatiello, ACSM Government Affairs Director, 210 Little Falls Street, Falls Church, VA 22046, telephone 703/241-2446.

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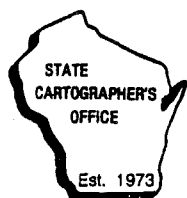
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January 1983