SCS STUDENTS
COMPARISON AND CONTRAST
DESCRIPTIIONS OF UW-MADISON
ON MAPS FROM DIFFERENT
SOURCES AND ERAS
DUE NEXT WEEK!

ETHAN LUCAS
Geography Undergraduate Student, UW-La Crosse
SCS GIS Analyst, September 2020 – July 2021
Currently a Graduate Student at
Ohio State University

KYLE MCGAIRD
Geography Undergraduate Student, UW-Madison
SCS GIS Intern, August 2020 – February 2021
Currently GIS Analyst at Sams in Madison, Wisconsin

Abby Gleason
Undergraduate Student, GIS and
Map Programming, UW-Madison
SCS GIS Intern, January 2020 – May 2021
Currently a GIS Analyst at EarthSource, Milwaukee, Wisconsin

Vinesh Janarathanan
Undergraduate Student, Electrical Engineering and Computer Science, UW-Madison
SCS GIS Intern, February 2021 – May 2021

Josh Shreiber
Graduate Student in Cartography/GIS,
UW-Madison
SCS GIS Intern, January 2020 – May 2021
Currently an Intern at Urban Planning

These maps are for your reference – not part of the assignment.
Exercise One: Events Organized by State Cartographer’s Office Staff

Complete the exercise by matching the event in the left-hand column to the appropriate projection.

Events

**Event 1: WICDI Workshop No. 1.** The first Culvert Workshop of 2020-21 for the Wisconsin Culvert-Management Data Infrastructure project (also known as “WICDF”) was held virtually on Oct. 6, 2020. Organized by Melanie Kohls, with assistance from Genevieve Burgess, Hayden Elza and Howard Veregin (State Cartographer’s Office), and Jim Gigliarano and Emma Cutler (Department of Administration).

**Event 2: Presidents Council.** Jim Lacy organized and hosted the annual Presidents Council Meeting on Nov. 18, 2020. The meeting was held virtually. The Presidents Council was established in 1996 to improve communications between professional associations in Wisconsin involved in land information activities.

**Event 3: WICDI Workshop No. 2.** The second Culvert Workshop for the WICDI project was held virtually on Jan. 21, 2021. Organized by Melanie Kohls, with assistance from Genevieve Burgess and Howard Veregin (State Cartographer’s Office), and Jim Gigliarano and Emma Cutler (Department of Administration).

**Event 4: WSRSS2022 at WLSL2021.** Howard Veregin and Dick Kleinnann, co-chairs of the Wisconsin Spatial Reference System 2022 Task Force (WSRSS2022) organized a session at the Wisconsin Society of Land Surveyors (WLSL) Institute on Jan. 28, 2021. Featured speakers were Alan Vonderhege, PhD (UW-Madison Emeritus) and Dan Rodman, PLS (City of Madison) speaking on “Wisconsin’s Piece of the State Plane Coordinate System of 2022.”

**Projection A. The Orthographic Projection.** Centred on Wisconsin (45 N, 90 W). Developed in rudimentary form by Ptolemy (c. A.D. 166), further developed by Claudius Ptolemy in 1451, and used by Rudolph Böning (1727-94) for whom it is named.

**Projection B. The Bonne Projection.** Centred on Wisconsin (45 N, 90 W). Developed in rudimentary form by Ptolemy (c. A.D. 166), further developed by Claudius Ptolemy in 1451, and used by Rudolph Böning (1727-94) for whom it is named.

**Projection C. The Albers Equal-Area Conic Projection.** Centred on 40 W, first presented by Heinrich Albers of Germany (1776-1862).

**STATEWIDE PARCEL PROJECT, VERSIONS 6 & 7**

The goal of the Statewide Parcel Project is to produce annually updated versions of the statewide parcel database using county sources. The project is a partnership with the Wisconsin Land Information Program at the Dept. of Administration & the state’s 74 County Land Information Offices. The statewide parcel database is publicly available online. Versions 6 and 7 of the Parcel Project are also building a statewide PLSS dataset to replace LandNet.

**WISCONSIN COASTAL-MANAGEMENT DATA INFRASTRUCTURE (WCDI) PROJECT, PARTS 1 & 2**

The goal of WCDI is to enable coastal managers to respond more effectively to damage from floods, with a specific focus on coastal mapping best practices along Wisconsin’s Great Lakes coast. WCDI is a partnership with the WI Coastal Management Program & State Geographic Information Office at the Dept. of Administration. WCDI is a National Oceanic and Atmospheric Administration Project of Special Merit funded through the WI Coastal Management Program (DOA Office for Coastal Management under the Coastal Zone Management Act, Grant #NA18NOS4490007 & #NA20NOS4490105).

**ASHLAND COUNTY BUILDING INVENTORY (ABI)**

The goal of the ABI project is to develop a detailed building inventory for northern Ashland County to assist in flood preparedness and mitigation. The project is being constructed using property assessment data, parcel data, LiDAR imagery and building footprints.

The ABI project is funded through the WI Coastal Management Program (National Oceanic and Atmospheric Administration Office for Coastal Management under the Coastal Zone Management Act, Grant #NA18NOS4490007).

**UNIVERSITY OF WISCONSIN COLLABORATIONS**

- **Spatial Analysis & Data Processing, Anti-Microbial Resistance Project**
  - School of Pharmacy & Dept. of Geography, UW-Madison
  - Working with Dr. Song Gao (UW-Madison Geography), we performed spatial analysis on anti-microbial resistance data provided by Dr. Lauren Legenza (UW-Madison School of Pharmacy). We also assisted with data processing as part of our long-standing efforts to provide GIS support for Dr. Legenza’s research.
  - SCO students: Ethan Lucas, Kyle McNair

- **WisconsinView LiDAR Processing**
  - Space Science and Engineering (SSEC), UW-Madison
  - We have been working with Dr. Sam Batsill at SSEC to develop automation methods to make it easier to use WisconsinView’s LiDAR data archive.
  - SCO student: Ethan Lucas

- **Robinson Map Library Collaborations**
  - Dept. of Geography, UW-Madison
  - We continue our long history of collaboration with Jaime Martinellie at the Robinson Map Library. Recent efforts include enhancements to the GeoData portal, research on historic aerial imagery preservation, and NAIP data processing. Other collaborative efforts include the WMAFinder and Aerial Photography Catalog apps.
  - SCO students: Abby Gleason, Josh Seibel

**SCO ANNUAL EXPENDITURES**

- **Small Contracts (83%)**
- **University Funds (17%)**

**TOTAL $641K**

**University of Wisconsin’s Boots & Suits Program**

- **Washington DC, June 2021**
- **$,932,559.87**

**Wisconsin Economic Development Initiative**

- **Department of Energy, $350,000**
- **Wisconsin Economic Development Corporation, $500,000**

**TOTAL $850,000**
MEET OUR APPS

Looking for maps, imagery or geospatial data for Wisconsin? STOP WINGIN’ IT! Navigate to our collection of free online apps and find what you’re looking for.

WWW.SCO.WISC.EDU

DESIGNED TO DELIVER

STATEWIDE PARCEL MAP VIEWER
TOUGH ENOUGH TO HANDLE 3.5 MILLION PARCELS, which is under the hood of the parcel map viewer! It’s got every county parcel database so you’re not stuck in a vertex or a county. There’s even more data here for you to explore. maps.sco.wisc.edu/parcels

FIND LIDAR DATA
YOUR SEARCH FOR WISCONSIN LIDAR DATA JUST GOT EASIER: With files, DMS, contours, terrains, laser data comes in a lot of flavors. But whatever flavor you’re looking for, click through to see how you can access, download, view, and easily use our raw connection tile index. www.sco.wisc.edu/data/elevationdata

UNIQUE BUT PRACTICAL

PLSS LOCATOR
WHEREARE - You don’t always need to know the Public Land Survey System Township, Range, Section, Quarter Section and Quarter Quarter Section you are in. But when you do need to know, you need this app. Also search by latitude and longitude. maps.sco.wisc.edu/plss-locator

SURVEY CONTROL FINDER
CHANNEL YOUR INNER SURVEYOR, when you can you access information for 25,000+ geodetic control points, 100,000+ Public Land Survey System records, and the CORS network, all from a simple, intuitive-map interface with consistent expert guidance. maps.sco.wisc.edu/surveycontrolfinder

CLASSICS

GEODATA@WISCONSIN
MORE DATA THAN EVER BEFORE, with almost 77,000 datasets available online. GeoData@Wisconsin makes your GIS projects easier than ever! Whether you’re looking for geographic data, imagery or sourced maps, it’s all at your fingertips with GeoData@Wisconsin. geodata.wisc.edu

WHAFINDER
THIS CLASSIC NEEDS NO INTRODUCTION. Download high-resolution sets of thousands of 1:250,000 air photos of Wisconsin… all from your desktop! This app has been a crowd favorite ever since the 2011 Governor’s Award for Archival Innovation. maps.sco.wisc.edu/WHAFinder

AERIAL PHOTOGRAPHY CATALOG
NO MORE LATE NIGHTS. Finding the right aerial photo can take time. With this streamlined catalog going back to the 1920s, you can find what you need without looking above. From aerial ortho to the source where images can be obtained, inclusive ArcWeb state, local and university archives. maps.sco.wisc.edu/catx

COASTAL BORDERER SURVEY EXPLORER
TIME TRAVEL FROM YOUR DESKTOP. Step back in time with the collection of data spanning from 1890s Wisconsin Shoreline Survey maps, duplicate photos and the Harmonic Coordinate System (HCS) 1983. Explore Wisconsin’s counties but contains inland areas too. maps.sco.wisc.edu/BordererCoastal

PRONOUNCE WISCONSIN
SOUND LIKE YOU'RE FROM WISCONSIN (EVEN IF YOU'RE NOT)! Never mispronounced Chequamegon or Bay de la Misque again with the help of our talking place name map. Pronunciation you can actually hear... no understanding of pronunciation required. maps.sco.wisc.edu/pronounce

WISCONSIN BEARING TREES
STILL STANDING. Without trees, Wisconsin would never have been fully mapped. Starting in the 1830s surveys began tagging special “bearing trees” to mark the locations they surveyed. Some of those original trees survive to this day. With your fingertips, explore Wisconsin’s rich history. maps.sco.wisc.edu/bearingTrees

COMMUNITY COLLABORATION
**Internal Projects**

**2020 NAIPO Data Processing**
Organized & reprojected USGS lidar data to make them ready for Wisconsin users. Available on GeoBase Wisconsin.

**WisconsinView LiDAR Processing**
Developed customizations to handle the organization & make downloads easier for WisconsinView's massive LiDAR archive.

**Historic Aerial Imagery R&D**
Research methods to retrieve aerial imagery from the USGS to build an archive of historic Wisconsin imagery.

**Pronounce Wisconsin Update**
Worked with Jackie Johnson ("Miss Pronounces") to compile a major overhaul of our popular web app.

**Unincorporated Place Populations**
Prototyped methods to produce population estimates for rural unincorporated places.

**Center of Wisconsin Research**
Investigated what science or methods led Governor Walter J. Kohler, Jr., to declare Pittsville the geographic center of Wisconsin in 1952.

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**Other Activities**

**Wisconsin Public Radio Story**
Howard Verigin was interviewed for a Wisconsin Public Radio story. "It looks like a square root symbol. How Pecos County got its Shape." Read: www.wpr.org/fs/looks-square-root-symbol-how-pecos-county-got-its-shape

**High School Student Mentor**
Jim Lacy mentors a middle school student from Denmark, Wisconsin, during spring semester, 2023.

**Local Public Radio Story**
Howard Verigin and members of the Wisconsin Geographic Names Council were quoted in a WPFR Public Radio story. "Wisconsin Geographic Names Council Approves New Name for Dodge & Vilas County Lakes." Read or listen: www.wpr.org/post/wisconsin-geographic-names-council-approves-new-name-dodge-vilas-county-lakes
OUR MISSION IS TO FOSTER THE DEVELOPMENT OF WISCONSIN’S GEOSPATIAL COMMUNITY BY FACILITATING THE CREATION AND EXCHANGE OF GEOSPATIAL DATA, SERVICES AND INFORMATION, AND PROMOTING THEIR USE IN SUPPORT OF EDUCATION, INNOVATION AND DELIVERY OF SERVICES TO THE STATE’S CITIZENS.

WISCONSIN STATE CARTOGRAPHER’S OFFICE
DEPT. OF GEOGRAPHY
UW-MADISON
384 SCIENCE HALL
SUN N. PARK ST.
MADISON, WI
53706-1435

HELP@SCO.WISC.EDU
(608) 263-3005

INTERNAL MEMO

To: SOC Staff
From: Howard Varigis
Subject: Map and photo sources

Staff, in response to your queries, here are the sources used in the latest annual report.

Events Organized/Conference Presentations Pages:
- Data for the maps from US Census Bureau, www.census.gov/estat boundaries1/WI Dept.
datacatalog.worldbank.org (continental outlines)

Externally Funded Grants (πππππ) Pages:
- NOAA Maritime Chart 14916 (2016), Lake Winnebago and Lower Fox R. (charts.noaa.gov/
InteractiveCatalog/arrn/detail), WI System Institutions (www.wiscdn.edu)

Internal Projects and Other Activities Pages:
- WI Dept of Transportation 2008 State Highway Map (paper copy)

Meet Our Apps Pages:
- Photos on unavon.edu by Boston Public Library (canvas Magnet.mapp Laptop Windows
laptop, Robert Eye's desktop), Bozeman PostScript (computer), Christine &
wordtechnologists (silhouettes), Noisy Bull (smartphone/glass), Erick Khan
(smartphone/casually), Charles Delivio (smartphone/hand) & Ipad/tablet.
- Seeing tree photo by Jeff Austin (jayip.com/wisc.edu/seeingtree)

Now Showing Page:
- Photos from commons.wikimedia.org American scientist and Harvard professor Louis
Agassiz by American Museum of Natural History; Mabel’s Dramatic Career 1912 by
keystone Film Company/Orange County Archives.
- Map of Wisconsin showing the population of the state by counties, Census of 1880
content.wisconsinhistory.org/digital/collection/wisat.

Staff Pages and SOC Coordination (κκκκκ) Page:
- All GIS topics as described on the pages (ngmdbungo.gov/covetop)

Students Pages:
- General Land Office plat map, Township No. VII North, Range No. IX E, 4th Mer. (W.N.T.),
1835 (gloriessalina.gov)
- UDBS copies maps Madison 1880, La Crosse 1909, La Crosse 1909, La Crosse 1909, La Crosse 1909,
1880 Madison 1880 Madison 1880 Madison 1880 Madison 1880 Madison 1880 Madison 1880 Madison 1880
- WI Geologic & Natural History Survey, Hydrography Map of Lakes Mendota 1950
- WI Land Resources Survey Map, town of Madison, 1940
- USGS Library wisc.gov/digital/AV/landtopo
Washburn, and Chequamegon and Coastal Chart 14906 (2012) Upper Green Bay
charts.noaa.gov/InteractiveCatalog/arrn/detail.

About the SOC Pages:
- Photo of backgound from commons.wikimedia.org Aankoop met steun van de
Mondriaan Stichting, the Prin Bernhard Culturel Fonds, the Fonds, the Paul Huf
Fonds, the Fonds, the Fonds, the Egbert Kunstfonds.

All other maps and screen shots are courtesy of you, the staff of the SOC. Any photos not
credited above were taken by us.