



Wisconsin County Surveyors Association, Inc.

Minutes of the WCSA Board of Directors Meeting

Thursday, May 4, 2023

River Block Bldg. (Wood County) - Wisconsin Rapids, WI



Board of Directors Attending

Ryan Duckart	Brown County	Rob Merry	SEWRPC
Bryan Meyer	LaCrosse County	Wade Pettit	Clark County
Joe Nelsen	Trempealeau County	Tom Leslie	Brown County

WCSA Members/Others Attending (*Virtual)

Glen Schaefer*	Retired	Larry Kempe*	Marathon County
Mick Heberlein	WisDOT	Brian Gross	Oconto County
Dean Roth	Eau Claire County	Sam Monahan	Eau Claire County
Dave Addison	Dodge County	Corey Hughes	St. Croix County
Dale Raisleger	Brown County	Terry Lueschow	Seiler Instruments
Kevin Boyer	Wood County	Gary Dechant	Juneau & Monroe County
Justin Meyer	Taylor County	Laurence Johns	Vernon County
Cody Brommerich	Jackson County	Dave Tlusty	JET Enterprises
David Vogel*	SCO	Gregg Batzer*	Dunn County

President Ryan Duckart called the meeting to order at 10:10 am

- No additions to the agenda
- THANK YOU to Dave Tlusty & Kevin Boyer for the refreshments

Motion was made, seconded and approved to accept the March 23, 2023 minutes as presented

Secretary's Report (Tom Leslie):

- Prepared minutes for the last annual meeting; distributed any informational emails, literature, links, Mick's report, etc. to Board and membership; continue to work with David Vogel on getting the online SCO county surveyor directory updated (retirements); updated the WCSA website as needed; sent dues reminder email
- Request to include copy of minutes as well as website link when sending out meeting reminder emails

Treasurer's Report (Tom Carlson):

- See Treasurer's Report attached to the end of the minutes for more detailed information

Motion was made, seconded and approved to accept the Secretary & Treasurer Reports as presented

WLIC Report (Cody Brommerich):

- No report at this time as the group has not met since last report

Correspondence:

- Dave Addison sent an email concerning surveyors not turning in surveys in a timely manner, if at all. Statutorily, surveyors have to file a survey with the local county government no more than 60 days after the completion of the survey. There has been lots of discussion on when that “60 days” actually starts: When the client gets a copy of the survey? When the surveyor gets paid? When the monuments are put into the ground? When the survey is signed and sealed? There is no clear-cut answer to this question. Does the survey still need to be filed if the client never pays? Would the surveyor be liable if anything were to arise from the survey being done? It’s definitely a grey area, but most important of all: **get the survey filed!** Bryan Meyer mentioned that there was an article in WPS back in 1987, and republished in March 2013 that deals with this subject. Log in to WSLS to find the article (tried myself but couldn’t access)
- Upcoming PRIA meeting to be held in Weston, May 17 & Madison, May 18

Education Segment:

GPS on Benchmarks latest update — Mick Heberlein, WisDOT

- See Mick’s latest email report attached to the end of these minutes and also located on WCSA website. He also discussed reobservations of some points, as perhaps that location may have had interference from space (sun flares/electrical issues). A list was generated with points that should be reobserved which was shared with agencies and individuals involved

Historic Spring Green Monument — Mick Heberlein, WisDOT

- Mick discussed the history of the monument, the plans by the Town and how that will affect the location of the monument, WSLS’s involvement in saving the monument (financial donation for possible guardrail protection); he also asked if any WSLS Chapters would be interested in supporting the preservation of the monument (3 chapters so far)
- *A motion was made, seconded and passed to have WCSA make a donation, with the exact amount to be determined once WSLS publishes the final cost of the project*
- Thank you to Mick for getting this issue to the forefront – the monument is unique and of great historical value and deserves to be saved

Old Business:

1) Status of County Surveyor Offices:

- SCO website has been revised – CS directory is now a quick link. Information should be up-to-date. Working on the yellow dots (LIO) to make sure they represent the correct counties and that they show correct information. THANK YOU to David Vogel for all his work on this issue
- Ryan Duckart contacted Winnebago County and got no response, Oneida County and spoke with LIO person, and sent a “Benefits of having a County Surveyor” document to Duane Haakenson in Langlade County. Taylor County will have a new CS/GIS which should be approved by the County Board soon

2) 2023 PLSS Forum:

- Dan Frick has contacted Gavin Scray from Marinette County but has not received a reply yet

3) GPS/Onyx Issues:

- Cell Phone app White Paper latest version (6) is out and online. It added an accuracy statement and a large yellow “alert” at the top, so it jumps out to people visiting the website and clicking the document
- *A motion was made, seconded, and passed to approve the latest version of the Cell Phone App White Paper and to get it on the WCSA website*

New Business:

1) Farm Technology Days – Booth coverage July 18-20 (Tues-Thur)

- Western Chapter is in charge but needs help. Does WCSA want to offer help with booth coverage? Laurence Johns volunteered for one day – thank you!
- Central Chapter offered to help with staking and booth coverage. Nettie Harley will head up the staking

2) Hard copies vs Electronic copies – Where do you stand?

- After some discussion, this topic varies from County to County with no real consensus
- If a County is all electronic or moves to electronic, do they still maintain a hard copy in the office? Most say No, once they move to electronic, that's the “new” survey file

3) Wisconsin Counties Association Annual Conference

- Is this something worth attending? Should WCSA get a booth? WSLs obtain booth – we cover?
- \$800 for a booth – would be great PR for WCSA
- Wade Pettit will donate syrup and Dave Tlusty will donate 25 monumentation posts as door prizes
- Kevin Boyer and Lawrence Johns will volunteer to cover the booth
- *A motion was made, seconded and passed to have WCSA obtain its own booth and \$200 for miscellaneous expenses*

A motion was made, seconded and approved to adjourn at 1:10 pm



Wisconsin County Surveyors Assoc. Inc.

Treasurer's Report - May 4, 2023

Current Balances (Westconsin Credit Union)

Balances as of April 28, 2023

Checking..... \$6,670.68
Savings..... \$5,681.74

Expenditures 2023

<u>3025</u>	1/3/2023	Tom Leslie (Secretarial Services – 1 st Qtr.)	\$700.00
<u>3026</u>	1/6/2023	Wisconsin Towns Association (Dues)	\$175.00
<u>3027</u>	1/6/2023	Menomonie Post Master (Stamps)	\$12.00
<u>3028</u>	1/9/2023	National Assoc. of Co. Surveyors (Dues)	\$100.00
<u>3029</u>	1/25/2023	WSLS Foundation (Bucky's Challenge)	\$250.00
<u>3030</u>	3/23/2023	Cody Steies (BOD Refreshments)	\$34.15
<u>3031</u>	4/3/2023	Tom Leslie (Secretarial Services – 2 nd Qtr.)	\$700.00

Total expenditures in 2023 **\$1971.15**

Deposits 2023

1/11/2023	Dues Payments	\$250.00
1/18/2023	Dues Payments	\$200.00
1/20/2023	Dues Payments	\$100.00
2/6/2023	Dues Payments	\$100.00
2/14/2023	Dues Payments	\$100.00
2/23/2023	Dues Payments	\$100.00
3/22/2023	Dues Payments	\$1000.00
3/28/2023	Dues Payments	\$1550.00
4/4/2023	Dues Payments	\$350.00
4/17/2023	Dues Payments	\$200.00

Total deposits in 2023 **\$3950.00**

2023 Dividends – Checking Account

1/31/2023	Dividend	\$0.37
2/28/2023	Dividend	\$0.32
3/31/2023	Dividend	\$0.41

Total dividends received in 2023 **\$1.10**

2023 Dividends – Savings Account

1/31/2023	Dividend	\$1.93
2/28/2023	Dividend	\$1.74
3/31/2023	Dividend	\$1.93

Total dividends received in 2023 **\$5.60**

Total postage stamps used in 2023 **4**

(The last two stamps remaining from 3/17/2021 were used. A book of 20 were purchased on 1/6/2023.)

Report Respectfully Submitted,



Tom Carlson, Dunn Co. Surveyor
WCSA Treasurer

From: [Heberlein, Mick - DOT](#)
To: [Heberlein, Mick - DOT](#)
Subject: Update for GNSS Observations on passive Wisconsin Height Modernization (Wi-HMP) Stations May 2023
Date: Monday, May 1, 2023 4:15:33 PM

CAUTION External Email: Be safe with links and attachments. Please report bad messages

Please share as appropriate
Date: 5/1/2023

I want to acknowledge that Mark Kamin and the students at Northeast Wisconsin Technical College (NWTC) have submitted multiple observations on some new stations near the NWTC campus for publication in the NGS database when the 2022 datum is rolled out. Thank you all for adding to this effort!

The National Geodetic Survey (NGS) has announced the current deadline to include GPS on BM observations as part of the release of the 2022 datum is September 30, 2023. More information is available at <https://www.ngs.noaa.gov/GPSonBM/>

A link to the WisDOT GPS on BM status Map:
<https://wisdot.maps.arcgis.com/apps/webappviewer/index.html?id=9f00da9c32da4e519bd035591abc09c9>

In the Wisconsin Height Modernization (WI-HMP) Program, there are approximately 5,288 Vertical only stations and 3,553 stations with a Horizontal component for a total of 8841 stations

Many observations have been done that do not yet appear on the NGS OPUS share map nor GPS on BM PRIORITY MARK LIST below

OPUS Share Solutions per NGS OPUS share Dashboard (Based on Observation Date)

Shared Observations prior to January, 2021	474
Shared Observations 2021	3445
Shared Observations 2022	1000
Shared Observations 2023 as of 5/1/23	35

Total 4954

OPUS Share Solutions per NGS OPUS share Dashboard (Based on Date observation was accepted by NGS)

Shared Observations prior to January, 2021	345
Shared Observations 2021	3294
Shared Observations 2022	1216
Shared Observations 2023 as of 5/1/23	99

Total

4954

Notes

- All shared observations by WisDOT and Partners
- Includes non-WI-HMP stations

Date	Total Shared Observations Based on NGS accepted date
September 8, 2020	66
December 3, 2020	157
January 4, 2021	345
February 1, 2021	430
March 1, 2021	606
April 1, 2021	755
May 1, 2021	971
June 1, 2021	1143
July 6, 2021	1443
August 4, 2021	1752
September 1, 2021	2299
October 1, 2021	2708
November 1, 2021	3000
December 1, 2021	3370
January 1, 2022	3643
February 4, 2022	3845
March 2, 2022	3970
August 8, 2022	4139
September 1, 2022	4208
October 3, 2022	4292
November 7, 2022	4414
December 1, 2022	4613
January 6, 2023	4883
February 2, 2023	4920
March 2, 2023	4922
April 4, 2023	4923
May 1, 2023	4954

10 Km NGS GPSONBM Hexagons Completed

NGS has divided the entire nation into a series of 10 Km hexagons. One goal of the WisDOT's GNSS Observation on passive stations project is to get one observation in every Wisconsin 10 KM hexagon. There are 1843 hexagons in Wisconsin. Hexagons that are DONE are a result of either an OPUS share station observation or a station submitted to NGS via Bluebooking within a hexagon.

Date	10 KM Hexagons Completed	% Completed	10 Km Hexagons Remaining
September 8, 2020	447	24.3%	
November 30, 2020	571	31.0%	
January 4, 2021	584	31.7%	
February 1, 2021	609	33.1%	
March 1, 2021	718	39.0%	
April 1, 2021	760	41.3%	
May 3, 2021	897	48.7%	
June 3, 2021	978	53.1%	
July 2, 2021	1083	58.8%	
August 3, 2021	1300	70.6%	
September 2, 2021	1510	82.0%	
October 4, 2021	1618	87.8%	
November 1, 2021	1688	91.6%	
December 1, 2021	1737	94.3%	
January 4, 2022	1757	95.3%	86
February 3, 2022	1768	95.9%	75
March 2, 2022	1775	96.3%	68
August 8, 2022	1777	96.4%	66
September 7, 2022	1777	96.4%	66
October 17, 2022	1777	96.4%	66
October 31, 2022	1778	96.5%	65
November 28, 2022	1779	96.5%	64
January 3, 2023	1779	96.5%	64
January 31, 2023	1779	96.5%	64
February 21, 2023	1779	96.5%	64
March 20, 2023	1779	96.5%	64
May 1, 2023	1779	96.5%	64

Note: All remaining hexagons contain non-Wisconsin Height Modernization NGS stations, vertical only benchmarks or are have stations that are not GPSable.

GPS on BM PRIORITY MARK LIST (NGS)

NGS has produced a prioritized list of bench marks where additional GPS data would be helpful to help define the new 2022 Geoid model. Providing GPS on stations with leveled elevations will help to relate the GPS derived ellipsoid height with the leveled elevation of these marks. The stations on the Priority List are chosen by computer generated algorithms based on station location and metadata without regard to its status as a WI-HMP station. Currently, there are about 15,000 NGS benchmarks (both WI-HMP stations and non WI-HMP) in Wisconsin. Most non WI-HMP stations have relatively little current survey value, but may have important older surveys tied to them.

Date	Number of stations on list	Number of stations Completed	Percent of NGS Priority Marks Completed	Approximate % of 3553 Horizontal WI-HMP Stations
9/8/2020	2968	674	22.7%	19.0%
11/30/2020	3162	806	25.5%	22.7%
1/11/2021	3284	891	27.1%	25.1%
2/11/21	3395	949	28.0%	26.7%
3/1/21	3622	1054	29.1%	30.0%
4/1/21	3718	1107	29.8%	31.2%
4/28/21	4033	1272	31.5%	35.8%
5/24/21	4205	1397	33.2%	39.3%
6/29/21	4455	1565	35.1%	44.0%
7/30/21	4582	1646	35.9%	46.3%
8/23/21	5281	2134	40.4%	60.1%
9/20/21	5545	2448	44.1%	68.9%
11/1/21	5720	2689	47.0%	75.7%
11/29/21	5774	2846	49.3%	80.1%
12/7/21	5780	2861	49.5%	80.5%
1/4/22	5790	2931	50.6%	82.5%
1/18/22	5802	2982	51.4%	83.9%
2/8/22	5802	2998	51.7%	84.4%
3/1/22	5808	3041	52.4%	85.6%
8/1/22	5807	3080	53.3%	86.7%
8/23/22	5807	3126	53.8%	88.0%
10/11/22	5807	3164	54.5%	89.1%
11/28/22	5811	3346	57.6%	94.2%
1/31/23	5812	3509	60.4%	98.8%

Not updated since 1/31/22

Notes

- In an effort to make sure GPS on BM observations are spread out throughout a region, NGS designates only one 'completed' station in every NGS 2 Km hexagon, not matter how many station are in the hexagon
- Not all Wi-HMP stations are currently on the BM PRIORITY MARK LIST
- The vast majority of observations are on WI-HMP horizontal stations, but not all.
- NGS adds additional stations to the BM PRIORITY MARK LIST after certain stations are observed
- BM PRIORITY MARK LIST Spreadsheet typically updated once a month

ORIGINAL HARN STATIONS (OR REPLACEMENTS) DONE One

goal of the WisDOT's GNSS Observation on passive stations project is to get two observations on all original HARN stations or their replacements in Wisconsin. There are 80 Stations in total. The original HARN stations are a higher accuracy station and provided the initial control from which all other horizontal stations in Wisconsin were surveyed from.

Date	HARN Stations Completed	% Completed
March 1, 2021	49	61.3%
April 1, 2021	53	66.3%
May 3, 2021	59	73.8%
June 3, 2021	60	75.0%
July 6, 2021	69	86.3%
August 2, 2021	71	88.8%
September, 2, 2021	74	92.5%
October 1, 2012	76	95.0%
November 1, 2021	76	95.0%
December 1, 2021	78	97.5%
January 1, 2022	78	97.5%
February 3, 2022	78	97.5%
March 1, 2022	79	98.8%

Remaining (0): MILWAUKEE GPS has been destroyed.

List of Non-WisDOT Partners (that I am aware of) that have or are planning to submit OPUS Share observations

J.W. Austin Associates of Minocqua, Vernon County, LaCrosse County, Dodge County, Dunn County, Brown County, Sheboygan County, Washington County, Burnett County, Manitowoc County, Jackson County, Clark County, Sawyer County, Fond du Lac County, Oneida County, Washburn County, Lincoln County, Rock County City of Madison, Landtech Surveying of Oconomowoc, Seiler Instruments, Leica Geosystems, Milwaukee Metropolitan Sewerage District, DJ Henkel and Associates, LLC, Northeast Wisconsin Technical College (NWTC), Ayres and Associates, Christopher J. Gregory, PLS

THANK YOU ALL,
Mick

Mick Heberlein, PLS, PS, CFedS
WisDOT, Office of Surveying & Mapping
3502 Kinsman Blvd
Madison, WI 53704-2549
Ph. 608-243-5994 FAX 608-245-8959
Personal E-mail: mick.heberlein@dot.wi.gov

To report disturbed or destroyed geodetic monuments

Tel. 1-866-568-2652

email: <mailto:geodetic@dot.wi.gov>

