

Cleveland Surveying News

PRESIDENT
Steve Metcalf, PS
smetcalf@neff-assoc.com

PRESIDENT-ELECT
Dave Bruckner, PS
dbruckner@roadrunner.com

SECRETARY
Mike Kral, SI
secretaryclevelandplso@gmail.com

DELEGATE
George Hofmann, PS
george_hm@ameritech.net

TREASURER
Tim Feller, PS
tim@mcsteen.com

IMMED. PAST PRESIDENT
Mike Straub, PS
mikes@straubsurveying.com

Cleveland Surveying News
Distribution: 410

Newsletter
Publisher: Louise Veverka, PS

Columnists:
John Dailey, PS
Scott Casey, PS
Michael Straub, PS

2018 Advertising Rates

Full page: 9.6"x7.3" \$400 yr
1/2 page: 4.8"x7.3" \$200 yr
1/4 page: 4.8"x3.6" \$100 yr
Veverka.ps7513@yahoo.com

Cleveland Chapter of PLSO
P. O. Box 81713
Cleveland, OH 44181-0713

State Board of PLSO
150 E. Wilson Bridge Rd.
Suite 300
Worthington, Ohio 43085

Sept. 2018
Issue 18
Vol. 7

**SURVEYORS
AHEAD**



Newsletter Features

NO August Chapter Meeting—

Next Exec. Com. Meeting October 16

6 P.M. at Neff & Associates

All members are welcome

Reports -

Chapter Delegate Report 4

Miscellaneous -

Presidents report	2
GNSS Breakdown by R. Hoy	6
Richard Garretts Passing	10
Akron Univ. wins again	12
Chapter Calendar	13

2018 Advertisers—Thank You for supporting PLSO

Aerocon Photogrammetry

City Blueprint of Toledo

Roberts Surveying Supplies

Leica Geosystems

GeoShack

Precision Laser & Inst.

Jake's Stakes

Cleveland Chapter

Professional Land Surveyors of Ohio

Presidents Letter - PLSO Cleveland

We Surveyors are in heavy demand!

This time in North East Ohio, seems to be an economically vibrant time for our industry. Construction work is up, ALTA work is very active, Home Sales are surging along with rising home prices.

Calls from potential clients tell me they can't get prices from surveyors to do work they request.

And when they do, they Surveyors are quoting weeks out. High Demand, but competitive.

Because of the high demand in our industry, many New surveying companies are starting up from solid past employees of current firms.

Entrepreneurs and Startups know to expect the long work hours, capitalize on fast response times, and are seeing growth and early success.

The leap of faith is paying off.

The University of Akron had an Engineering/ Survey career fair this week, with multiple local Engineering/ Survey firms represented.

A few out of State Firms from Michigan, Pennsylvania, and West Virginia were recruiting as well.

I was told by some people, that a few out of State Firms will be opening up offices in Cleveland in the next few months.

But please don't forget the Construction companies! The recruitment teams sent in the big guns, Vice Presidents to entice the students to join them.

Flush with big contracts, the newest Survey S"XXXL" robots, and "I-like-A-Trimble-Conn" super equipment to do it faster and on larger screens.

Drones, Laser Scanning, Stringless paving, Union Wages, and Machine controls all make a great selling point.

Membership and Why ?:

ExCom members have been told that people are not renewing this year for various reasons, but the one that gets me is....

"What do I get for my membership dues?"

Well, you get discounts for the Educational Conferences, both at State and local Chapters.

These conferences are the financial funders for the organization.

Really the question is "What do I lose if I'm not a member?"

In Cleveland Chapter, you will lose your access to PLSO.info. records database.

The records database that has been growing with over 1,000 new records in the past year alone, and more to be expanded this winter.

This website driven records database is a Cleveland Chapter funded and Chapter member only, perk.

The website will be close for Beta testing by the ExCom and a faster more complete search is being done.

No more – image not found – etc.

Is that worth your additional membership dues? It could mean the difference of having the advantage over a competitor for a project.

The membership in PLSO is significantly less than Michigan, West Virginia, or Pennsylvania. Look it up.

Complaints:

The ExCom members receive phone calls & emails, thinking we are the State Board, which usually are complaints from residence.

Recently, we have heard complaints that Survey companies are providing boundary "alternatives" or "consultations" of where your property corner pins might be?

Digging up a property pin in a yard, flagging or putting a stake in the ground, to say "this might be your property corner."

Question: Is this legal?

Is that \$425.00 or \$500.00 worth getting a trouble by the State Board?

Also companies on different websites, Angie's House List of Advisories (not real name to protect the innocent), are offering tiered pricing for surveys with/ or without a survey map.

Doesn't 4733-37-05 Plat of Survey state: (Read it)

A surveyor shall prepare a scale drawing of every individual survey,

A copy of this drawing shall be given to the client...

I'm a newer licensee, with less experience than some, and more than others...

But to me it's not worth it to me to play what some people call the grey area and jeopardize my license.

State Board: Here's your chance squeaky wheels!!

I'm attending the PLSO conference in Perrysburg later this month & hope to talk to the Board reps. during the Ethics class.

I suggest if you have a question for the board email me at the PLSO Cleveland secretary email.

I will hand the compiled list to the Board – (all authors will be anonymous).



Steven Metcalf
President



**Precision Laser
& Instrument, Inc.**

www.laserinst.com

Construction • Survey • GIS

Sales • Service • Rentals • Training • Support



Nikon X Series Total Stations

Faster, Easier, Feature-Packed Survey Work!



**NEW
for 2018!**



Key Features

1", 2", 3" & 5" Accuracies

800m (2,600ft) Range,
Non-Prism EDM

Time-Saving NEW
Autofocus for Quick,
Precise Focus

Dual, Full Color Display
Touch Screens That
Allow for Survey Basic,
Survey Pro & Layout Pro
Onboard

Superior Nikon Optics
for Crisp, Bright Sightings

Trimble L2P ready for
Tracking of Assets

Hot Swappable Batteries

Lightweight Design

PIN Security

Smooth, Efficient
Workflows from the Field
to the Office

**Give Us a Call
To Learn More or
Schedule a Demo!**

**GNSS
Receivers**



SP60/SP80

**Underground/
Magnetic Locators**



Undgnd./Mag./Leak

**Mech./Robotic
Total Stations**



NPL/DTM/Nivo/Focus

**Data
Collectors**



Ranger 7/Nomad 1050

Locations:

Ambridge, PA: 724.266.1600
Columbus, OH: 614.759.1000
Cincinnati, OH: 513.539.0022
Akron, OH: 330.633.4900
Charleston, WV: 304.776.1831
Bridgeport, WV: 304.933.3036



Delegates Report

Sept. 14, 2018
State Executive Committee Meeting



**George
Hofmann**

President Diebel called the meeting to order at 6:08 P.M.

Secretary Brian Bingham determined that there was not a quorum present. Meeting began and about 20 minutes into the meeting we had two additional members arrive so we now have a quorum,

Motion to accept the minutes for the July 13, 2018 meeting . Motion Passed

Josh Mehelcic Treasurer reported that there were no financial available at this time so he had no report

5.2 New members; Motion to accept 3 Professional Members , 1 Affiliate, 1 Associate, and 1 Student Motion Passed.

State Board: 14 Surveyors surrendered their license this year.

PAC: No action this month

NSPS Governor : A member of the Firelands Chapter (Jeff) attended the meeting and asked questions about what NSPS does for us. Many of the delegates and officers filled him in on a lot of programs they have and others that they would like to initiate.

Legislation: the bill pertaining to reduction of rules was veto

Annual Conferences

2019-2021 Hilton Easton , Columbus, contracts completed

Fall Seminar

2018 Toledo

2019 Mason

2020 Cleveland Marriott Airport

Finance: No report

Chapter Delegates gave written and verbal report .

Respectfully submitted

George A. Hofmann ,2018 Cleveland Chapter Delegate

Jake's Stakes

SURVEYING and CONSTRUCTION STAKES

High quality, light colored, HARDWOOD and smooth

MARKER STAKES

18" x 1 5/8" x 1/2"	Bundle of 50
24" x 1 5/8" x 1/2"	\$0.18 ea
30" x 1 5/8" x 1/2"	\$0.22 ea
36" x 1 1/2" x 7/16"	\$0.26 ea
48" x 1 1/2" x 7/16"	\$0.30 ea
48" x 7/8" x 1/2"	\$0.38 ea

SQUARE HUBS

12" x 2" x 2"	Bundle of 25
18" x 2" x 2"	\$0.26 ea
22" x 2" x 2"	\$0.34 ea

WEDGES HUBS

22" HUB MARKER	Bundle of 50
9"	\$0.14 ea/Bundle of 100
12"	\$0.15 ea
	\$0.17 ea

METAL REBAR RODS

Available Any Length Call for \$

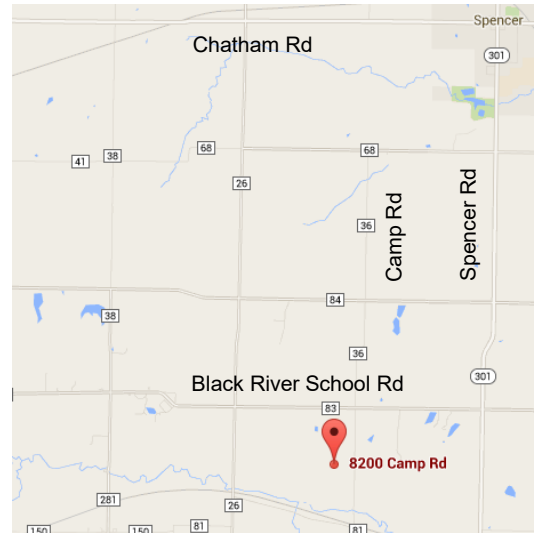
NO ORDER TOO SMALL or TOO FAR
LARGE INVENTO-

ORDERS FILLED RAPIDLY!

FREE DELIVERY ON LARGE

AMISH MADE

8200 Camp Road Homerville, Ohio



IF WE DON'T HAVE IT - WE MAKE IT!

DELIVERY AVAILABLE : CALL Dwight at Spencer Feed & Supply 330-648-2111

HIGH GRADE HARDWOOD SURVEY STAKES

DELIVERY AVAILABLE

- TOPCON DEALER SERVICE & RENTAL
- SOKKIA DEALER
- FIELD SUPPLIES
- INSTRUMENT SALES,
- GPS TECHNOLOGIES
- FIELD EQUIPMENT



ROBERTS

Surveying Supplies

WWW.ROBERTSSURVEYING.COM

5758 Ridge Road Parma, Ohio 44129

Phone (440) 842-2218

Fax (440) 842-0802

GNSS Update — Robert Hoy, Arcadis. U.S.

Satellite Launches

GPS III SV01, the first of 10 new GPS block III satellites is on its way to be launched in December. This will be the first GPS satellite to include the new L1C signal. Nine more satellites in this class are in production.

<http://insidegnss.com/air-forces-first-advanced-more-powerful-gps-iii-satellite-headed-to-cape-canaveral/>

ODOT VRS (nRTK) vs. Total Station

Previously I've compared RTK to nRTK (VRS), but I had a good opportunity to compare nRTK to total station observations. While finding pins during a search, using a county GIS shape file as a guide, I located the pins I found as a temporary position for inventory using ODOT VRS (nRTK), to have a visual on my collector screen as to where I've found pins to later locate with a total station. The horizontal precision of both nRTK points were 0.04 sft, which is fairly good for nRTK. Remember that the farther your rover rod is from the *actual* CORS that nRTK is using, the larger your errors. These pins were 100,000 sft from the CORS.

Distance between the nRTK observed coordinates: 472.63'.

Distance between the total station observed coordinates: 472.56'

At first glance you might think these are very close, right? Only 0.07' difference. But the precision of these observations, which brings state law minimum standards for boundary surveys in, is 1:6750 which is below the 1:10,000 requirement. Yikes. If we consider observing 2 points with RTK or nRTK, with 0.04' uncertainty for each point, how far apart would these points need to be to meet the 1:10,000 measurement precision of state law? $10,000 \times (0.04 + 0.04) = 800$. And for distances less than 100 feet, per state law, the observed distance must have no more than 0.02' error. RTK, whether base+rover or ODOT VRS (nRTK), is a tool and we must use it appropriately.

The state law, minimum standards for boundary surveys, give us the *minimum* required by surveyors. With the surveying instruments, data collectors, and office software of today we can measure much more accurately than error of 1:10,000. Let's be known for **quality** not for doing just the minimum.

Comments, questions? robert.hoy@arcadis.com

CITY-BluePrint OF TOLEDO

Surveying, Construction and Positioning Solutions.

YOUR COMPLETE SOURCE FOR INSTRUMENTS & SUPPLIES

seco
Authorized Dealer



Sales ■ Service ■ Training ■ Rental

MORE INFORMATION?
Contact Your Local Sales Rep:

Ted Muns
NorthWest Ohio
(419) 262-3539 cell
(419) 243-6418 fax

Steve Staples
NorthEast Ohio
(216) 513-3083 cell
(419) 243-6418 fax

City Blueprint of Toledo
3637 Briarfield Blvd
Maumee, OH 43537

TOLL: (800)548-1503

www.CityBlueprintofToledo.com

Just a little food for thought here.

← → ↻ ⓘ Not secure | codes.ohio.gov/orc/4733

Apps Google Office 365 DLES-WS Chase Spectrum TV Cuyahoga Recorder

LAWriter® Ohio Laws and Rules

Route: [Ohio Revised Code](#) » [Title \[47\] XLVII OCCUPATIONS - PROFESSIONS](#)

Chapter 4733: PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS

4733.01 Professional engineer and professional surveyor definitions.

As used in this chapter:

(A) "Professional engineer" means a person registered as a professional engineer under this chapter.

(B) "Engineer" means a graduate of an accredited engineering curriculum or a person registered as a professional engineer under this chapter, or both.

(C) "Accredited engineering curriculum" means an engineering curriculum accredited by the engineering accreditation commission of ABET, Inc.

(D) "ABET, Inc." means the accreditation board for engineering and technology.

(E) "The practice of engineering" includes any professional service, such as consultation, investigation, evaluation, planning, design, or inspection of connection with any public or privately owned public utilities, structures, buildings, machines, equipment, processes, works, or projects in the proper re public welfare or to safeguard life, health, or property.

(F) "Professional surveyor" means a person who is registered as a professional surveyor under this chapter.

(G) "Practice of surveying" means any professional service that requires the application of special knowledge of the principles of mathematics, the relat of the art of surveying, including, but not limited to, measuring the area or the contours of any portion of the earth's surface, the lengths and directions and for conveyancing for recording, or for the establishment or re-establishment of land boundaries and the platting of lands and subdivisions; and surveying."

Where is the equivalent for line B from above?

Maybe a little updating is required. Or at least for future surveyors, some of us were "grandfathered" in and do not have a 4 year degree. Maybe something should change here, maybe nothing. Just something to think about.



Let's Go Tribe

TRADE IN & TRADE UP

NOW THROUGH JUNE 30, 2015

Exchange your out of date robotic motorized instrument (up to 10 years old) and get a complete scanning and surveying package including MS50, data collector, office software, pole, prism, and tripod.

\$55K (\$14,600 savings)



MS50 Features:

- The fastest, most accurate "hybrid" total station available, with robotic surveying/imaging/scanning capabilities.
- With a 1" robot that scans 1000 pts/sec, the MS50 is designed for high precision surveying, yet easy of use to meet your daily needs.
- Enjoy simple workflow and data management without special training. Points, linework, images, and 3d points clouds easily integrate into most major CAD packages.

Terms & Conditions:

- Any Topcon/Trimble/Leica/Spectra Brand Robotic/Motorized Instrument, less than 10 years old and in working condition, will be accepted under this program. Traded-in goods must be received within 30 days.
- Trade-ins are on a one-for-one basis and may not be combined with volume discounts.
- The Trade-in program is only applicable against the purchase of new equipment.
- Other conditions may apply.

**Contact Alex Cherchian
for more info:**



614.264.6722



alex.cherchian@leicaus.com



leica-geosystems.us

- when it has to be **right**

Leica
Geosystems

The Cleveland Chapter of the PLSO with heavy hearts, want to inform everyone of the passing of one of the founders of our Chapter, Richard T. Garrett

Cleveland recently lost a benevolent giant whose family business helped build virtually every iconic structure in Northern Ohio.

Richard T. Garrett, a lifelong West Sider, passed away peacefully from complications related to heart disease on Sunday, September 16, 2018 at the age of 95.

As one of his many awards proclaimed, Dick will be remembered for his "inextinguishable legacy" of "extraordinary commitment and outstanding contributions of time, talent and resources.

" Dick was born on June 29, 1923 to parents Thomas and Vita Elizabeth Garrett. He grew up on Frazier Drive in Rocky River, overlooking the Cleveland Yachting Club. Dick followed in his father's footsteps and enrolled at the University of Michigan in 1941 to study engineering.



After the outbreak of World War II, Dick enlisted as an Engineer within the survey units of the Army Field Artillery. He landed in France within days of D-Day. He was among the first of the U.S. troops to cross the Rhine River into Germany at the Remagen bridge, made famous years later by Hollywood.

Following the war, Dick returned to the University of Michigan, married his college sweetheart Marilyn Holtom in 1947, and graduated in 1948 with his degree in Civil Engineering and Surveying.

Dick and Marilyn returned to Cleveland and Dick joined his family's surveying business, Garrett & Associates.

Founded by Dick's grandfather in 1890, Garrett & Associates provided critical engineering and surveying work to virtually every major project in town-from the Terminal Tower to the Hope Memorial Bridge to the Erieview Plaza to Cleveland State's campus to the Cleveland Clinic's main campus.

In 1964, Marilyn contracted MS, which caused her to be severely debilitated and mobility-impaired. Dick faithfully stood by Marilyn's side until her death in 1991.

In 1993 Dick met the second love of his life, Marjorie Fricke, whose husband Bob had succumbed to cancer five years earlier.

Dick had known Bob over 50 years earlier in the same high school class at Rocky River High School. Dick and Marge married in 1993. Through his 69 years of devoted, faithful and loving marriage, Dick balanced his business interests, his personal and family interests, and his civic interests in a most loving, pleasant, and humble way.

Dick received numerous awards for his surveying work, most of which were only recently discovered by his family by accident, and he was a mentor to generations of workers in the surveying industry.

He served as President of the Cleveland Chapter of the Professional Land Surveyors of Ohio. He was active in the Rocky River Rotary Club, and an officer and long-time member of the Cleveland Executives' Association.

Dick was an avid fisherman and boater, having fished all over the world and docked his boat in Lorain, Ohio and later at the Cleveland Yachting Club.

He owned properties in Costa Rica, Huron, Ohio and Naples, Florida, and he developed residential properties in Avon, Ohio through his Garrett Development Company.

Dick maintained an office in Rocky River and worked hard daily there until the day he was hospitalized.

Grateful for all that he had in his life, Dick was perhaps most of all a big-hearted humanitarian. Dick donated the entire original playground at the West Shore YMCA in Westlake, and he was a founder and builder of the Lake Erie Nature and Science Center in Bay Village.

Until his death, Dick provided financial support to a Native American school in New Mexico, and to a school in Costa Rica.

Dick and Marjorie created and funded the Holtom-Garrett Family Professorship in Neurology at the University of Michigan's School of Medicine. They also created and funded the Holtom-Garrett laboratory for MS research there.

Locally, Dick and Marjorie were Grand Patrons for the most recent renovation of Severance Hall. They were members of the Cleveland Clinic's prestigious 1921 Club, and in 2013 they received the Clinic's George Knile Award-the highest honor the Clinic gives for contributions to the Clinic for their involvement there.

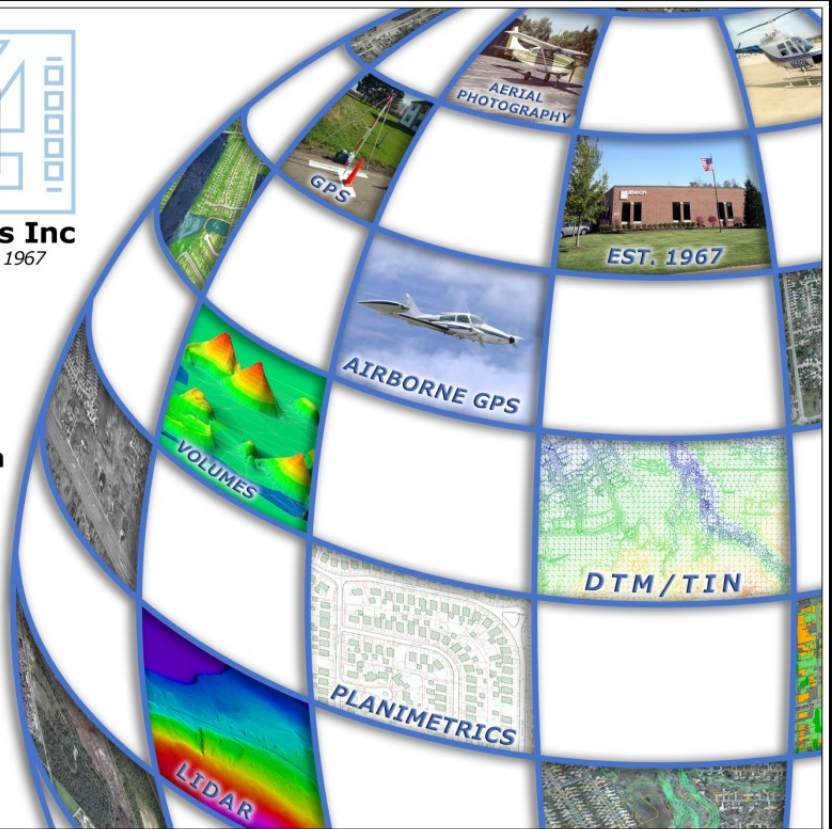
AEROCON

Aerocon Photogrammetric Services Inc

Dedicated to providing quality photogrammetric services since 1967

- **Aerial Photography**
- **Digital Orthophotography**
- **Digital Topographic Mapping**
- **Analytical Triangulation**
- **DTM/DEM Surface Generation**
- **LiDAR**
- **Airborne GPS**
- **GIS Services**
- **Volumetric Inventories**

4515 Glenbrook Road
Willoughby, OH 44094-8215
440.946.6277
440.946.2646 Fax
e-mail: skymap@aerocon.com
www.aerocon.com



Solutions Made Simple

Robots • GPS • BIM • UAV • Mobile Mapping • Scanning

SALES • SERVICE • SUPPORT • TRAINING



GeoShack is a team of sales and service professionals operating from our 25 retail locations in 9 states and 2 provinces dedicated to serving our customers and providing the best possible solutions.

As the North American industry leader, our team of product specialists will assist you with the latest technology driven productivity tools. **GeoShack** provides expert advice and training on the equipment and software that will make you more productive leading to greater profits for you.

Cleveland

883 Hampshire Rd., Ste. J
Stow, OH 44224
(330) 923-4477

Columbus

5120A Nike Drive
Hilliard, OH 43026
(614) 529-2583

972-918-5300
www.geoshack.com



Copyright © 2016 GeoShack, Inc. All Rights Reserved.

lm.gs.vv.05.19.v1

Surveying and Mapping Program receives grand prize for national award

07/09/2018 (Copied from the University News Letter)

Our Surveying and Mapping Program won the \$25,000 grand prize for the 2018 Surveying Education Award from the National Council of Examiners for Engineering and Surveying ([NCEES](#)).

The award recognizes surveying and geomatics programs that reflect the NCEES' mission "to advance licensure for surveyors in order to protect the health, safety and welfare of the public."

"We are thrilled to have won this grand prize and to again be honored by the NCEES," said Professor Gary Schuller, director of the program. "This recognition underscores the hard work put forth by the students and faculty in the program that have helped to make it grow."

The award money will be used to support scholarships, equipment upgrades, and marketing the program and the surveying profession.

The program received a \$10,000 award from the NCEES in 2017 and 2016. There is a high demand for graduates in the surveying and mapping field because of the anticipated high number of surveyors retiring in the upcoming years. The University of Akron is the only higher education institution in Ohio with an accredited surveying and mapping program. UA's program is housed in its [College of Applied Science and Technology](#).

A UA graduate can become a surveyor or a surveying technician. Professional surveyors solve modern land boundary, location and mapping problems by applying knowledge and skills in mathematics, law, local land history, map design, and business, and through the use of advanced technology. Surveying and mapping technicians collect data in the field, make calculations and do computer-aided drafting.

Graduates of the program work for engineering and surveying companies, utility companies, large construction firms and government agencies. The program has experienced 100 percent job placement for the last three years.

The award will be presented to UA in August in Scottsdale, Ariz. The CAST Survey and Mapping Program competed against 12 other programs in higher education institutions across the U.S. Three schools received \$15,000 awards, and three other schools received \$10,000 awards.

Media contact: Alex Knisely, 330-972-6477 or aknisely@uakron.edu.

Cleveland Chapter & State 2018 Schedule

Dates, times and locations subject to change, emails will be sent out with notification of any changes

Friday, January 13 - State PLSO Executive Meeting

Thursday - January 25, 2018 – Cleveland Chapter Annual General Meeting and installation of officers

February 21-24, 2018 PLSO State conference in Sharonville, Ohio

Friday, March 9 – State PLSO Executive Meeting

Tuesday, March 13 – 6 p.m. Cleveland Chapter Executive Meeting (newsletter #1 deadline 3/20)

Friday, April 14 – State PLSO Executive Meeting

April 14, Prior to the state board meeting STATE CPD Workshop

Tuesday, April 17 – 6 p.m. Cleveland Chapter Executive Meeting (newsletter #2 deadline 4/24)

April (TBA) – Cleveland Chapter General Meeting & CPD

Friday, May 11 – State PLSO Executive Meeting

Tuesday, May 15 – 6 p.m. Cleveland Chapter Executive Meeting (newsletter #3 deadline 5/22)

May STATE CPD Workshop (date and location TBA)

Friday, July 13 – State PLSO Executive Meeting

July 13, 45th Annual William Haas Memorial Golf Outing at Springvale Golf Course

July (TBA) - Clev. Chapter Education Recognition Meeting (newsletter #4 deadline 7/27)

Friday, September 14 – State PLSO Executive Meeting

Tuesday, Sept. 18 – 6 p.m. Cleveland Chapter Executive Meeting (newsletter #5 deadline 9/21)

October 11 & 12 - PLSO State Fall Seminar Perrysburg, Ohio

Tuesday, Oct. 16 – 6 p.m. Cleveland Chapter Executive Meeting (newsletter #6 deadline 10/23)

Friday, November 9 – State PLSO Executive Meeting

Tuesday, Nov. 13 – 6 p.m. Cleveland Chapter Executive Meeting (newsletter #7 deadline 11/20)

Tuesday, Dec. 12 (if needed) – 6 p.m. Cleveland Chapter Executive Meeting (newsletter #8 deadline 12/15/17)

3rd Thursday in January 2019 – Cleveland Chapter General Meeting & Installation of officers

2018 State PLSO Officers

President—Curt Deibel, PS, Tuscarawas Valley Chapter
Chap. President –Elect—Tom Silva PS Toledo Chapter

Imm. Past Pres.—Charles R. Harkness, PS, Muskingum Chapter

Secretary—Brian Bingham, PS, Central Ohio
Treasurer—Josh Mehilcic, PS, Miami Valley Chap.

NSPS Director—Robert L. Akins, PS, Tuscarawas Valley Chapter