

INNOVATOR

SPRING 2023



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Answer Due by Midnight on Friday, May 26, 2023

GEOD Provides

- 3D Laser Scanning
- Aerial Photography /
Photogrammetric & LiDAR Mapping
- Drone Surveying
- Land Surveying
- Subsurface Utility Markouts

As of October 2021, GEOD Corporation became an affiliated company of MFS Consulting Engineers & Surveyor, DPC (MFS Engineers & Surveyors), a multidiscipline, MBE/DBE/SBE certified civil engineering firm. Visit www.mfsengineers.com.



WHAT'S NEW?

New Equipment Leica AP20 AutoPole

GEOD and MFS are continuously on the lookout for new technology that will either increase safety, increase accuracy, increase efficiency or decrease human error. The Leica AP20 AutoPole uses several technologies to accomplish all the above.

The Leica AP20 AutoPole uses a tilt compensator, which allows the user to obtain accurate measurement to a rod that is not plumb, this allows the user the ability to tilt the rod to avoid obstacles and eliminating the need in many circumstances to locate the feature with an offset option.

The AutoPole automatically transmits the rod's height (PoleHeight) to the data collector thereby eliminating the user inputting the incorrect rod

height or forgetting to enter a rod height change either of, which will lead to incorrect elevations. The AutoPole has the option to TargetID within the automatic search feature of our Leica TS16 total stations, which prevents the total station from locking on to a foreign target.

The AutoPole also allows the operator the ability to pay more attention to their surroundings by not focusing on the rod's plumbness, this increase in spatial awareness leads to a safer workplace.

We have road tested the Leica AP20 and have found its features to be extremely helpful and are looking to add more to our survey fleet.

For more information on the Leica AP20 AutoPole visit: www.leica-geosystems.com.

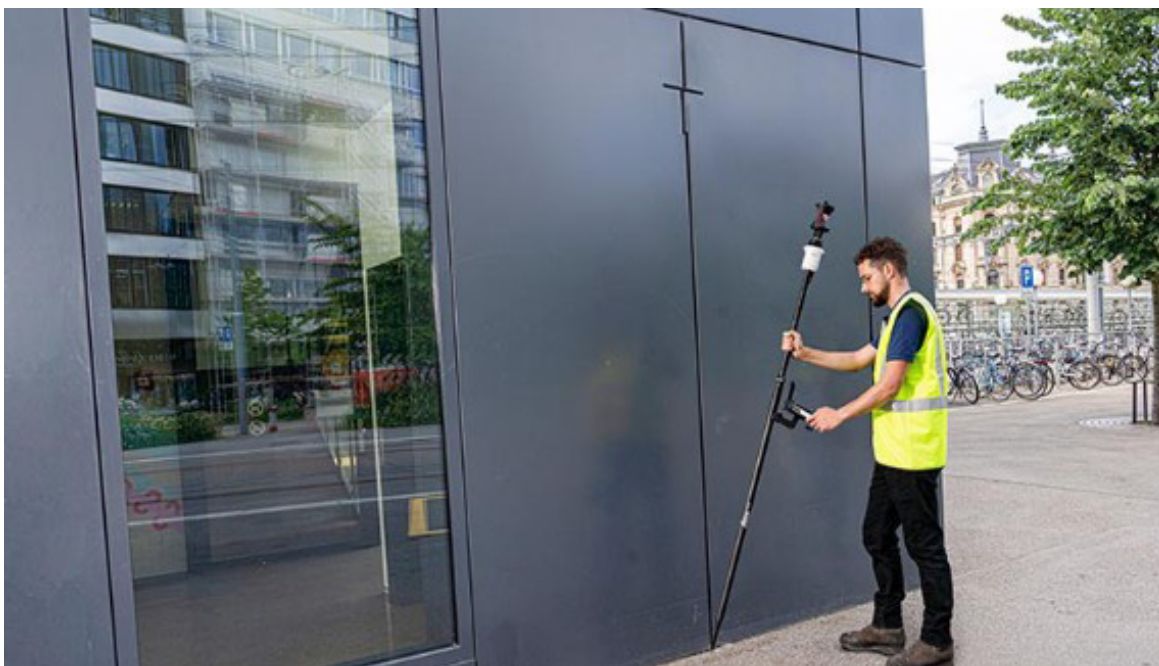


Image found at <https://leica-geosystems.com/en-us/products/total-stations/ap20-autopole>



PROJECT MANAGER SPOTLIGHT

Randy Jackson, PLS, FAA Remote Pilot, CST



"I started playing golf as a kid with my father. I would carry his clubs and get to play the Par 3's."

- Randy Jackson

Randy Jackson is a Professional Land Surveyor, Certified Survey Technician and a licensed FAA Remote Pilot. He is a Project Manager and has been with GEOD for over 23 years. He manages GEOD's field and office staff, while meeting project deadlines and budgets.

Over the past 23 years, Randy has had his share of experiences, but for him there are too many to mention. "Many of the jobs are at locations that the public doesn't get to experience," said Randy. "Our geographical area can have us working in the cities or in farm country. We could be working on bridges, roadway, and water ways; fighting for space on bench walls with the rats in NYC subway tunnels; freezing in the windy, 10-degree nights at Summit train station; experiencing the hot and cold, jet fueled air of days or nights at Newark and JFK airports; working inside of the Statue of Liberty, FDNY firehouses, NYPD precincts, New York Department of Sanitation yards, Con Edison power plants and steam tunnels; enduring 100+ hour work weeks with four coworkers conducting large Alta surveys, trying to meet impossible deadlines; scanning of the Citgo sign in Boston; and

more recently surveying the Albany New York Capitol steps. Fortunately, a lot of the memorable jobs I've worked on has been with a lot of good people."

Recently, Randy was working on surveying the Capital Steps in Albany, New York," Randy said. "It's been an interesting project, and luckily for us, there has been minimal snow this winter. I love the architecture of the steps and reading about the reason why they were built. Also, field sketches and good field procedures make the office work go much smoother when registering the point clouds.

One of Randy's favorite projects was the Boston Alta Survey job. GEOD performed field surveys for the sale of two condominium complexes in the Boston, MA area. "Four coworkers and I were working 100+ hour work weeks, for almost six weeks," Randy explains. "We brought a BBQ grill, cooked food, drank beer and played horse-shoes almost every night, as well as enjoyed meeting other people."

Typical days off, which seem to be far and few, include planned vacations, such as his once a year five day

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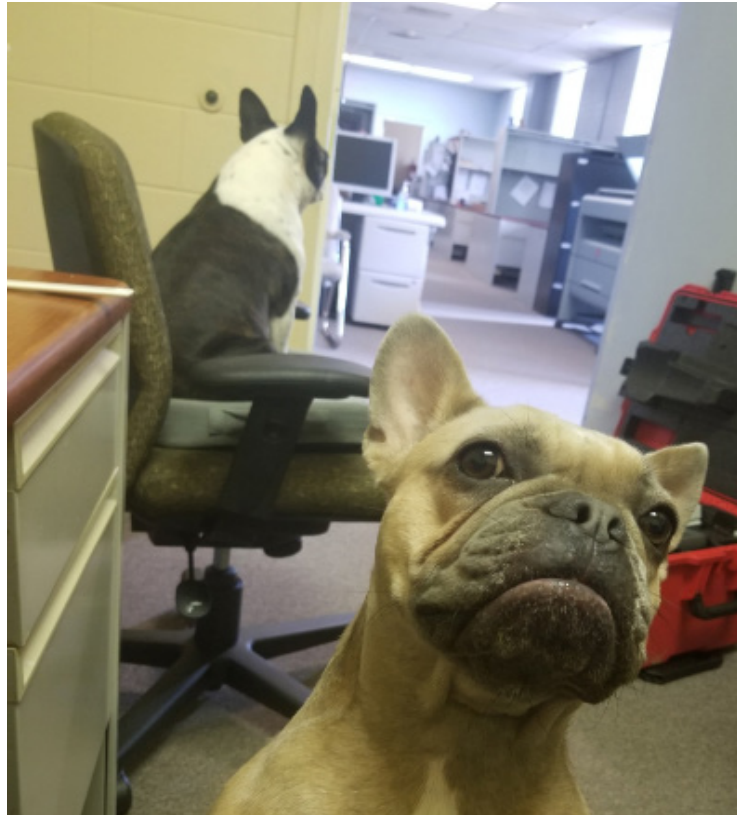


SPOTLIGHT *CONTINUED*

golf trip to Vermont with 32+ other guys, or trips with the family to national parks or Dorney Park in Pennsylvania. Other days he just likes to stay busy and keeping his mind occupied.

He is currently working towards a B.S., in Surveying Engineering Technology. His tentative graduation date is May 2023. Some of his hobbies are golfing, kayaking, hiking, photography, target shooting, scuba diving, and playing hockey.

Randy has a daughter who is in culinary school. He has three dogs (Boston Terrier, Frenchton, and a French Bulldog). He has adopted six outside cats, left behind from people moving out of his neighborhood. "It can be a bit much, especially when we travel, but we usually travel with the dogs and use automatic feeders for the cats." Randy said, "Unfortunately, the bears and or raccoons raid the feeders at times."



It's Spring Flying Season!

LET'S GET *Flying* 

The spring flying season refers to the period from late winter to late spring when aerial mapping and surveying is at its most effective. During this time, the weather is generally mild, and the ground is thawing, making it easier to access and survey.

Call GEOD at 973-697-2122 to discuss your aerial photogrammetric needs today!



FROM THE FIELD

Ocean County Roads, New Egypt and Lakewood

Ocean County, NJ

GEOD was contracted to provide topographic surveying and mapping for the reconstruction and resurfacing along five roads and intersections throughout Ocean County, New Jersey.

Services included establishing horizontal and vertical control points and benchmarks utilizing GPS baseline and digital level run. Control was tied to NAD 83 and NAVD 88 utilizing Leica Smart Net North America. We obtained all topographic features within areas of key intersections for pedestrian improvements, including top and bottom of curbs, sidewalks, driveways, fences, walls, etc. In addition, we provided an as-built survey of the drainage system within the project limits, including storm drainage inlets along the roadway with grates, pipe sizes and inverts. At locations of intersections with existing sidewalk ramps, field crews recovered and located all existing property corners, ROW monumentation and other survey control markers. Mapping was delivered in MicroStation V8i. All surveying and mapping was completed in compliance with Ocean County CADD standards.





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FROM THE FIELD

Rehabilitate Eastern Approach of NYS Capitol Building

Albany, NY

GEOD was contracted to provide 3-D laser scanning and subsurface utility markout services to support a rehabilitation project of the eastern approach staircase, promenades, eastern portico and executive ramp of the NYS Capitol Building in Albany, NY.

Field technicians established survey and secondary scan control for each scan setup. Scans were obtained at all locations of the eastern approach staircase, promenades, eastern portico, and executive ramp. Point clouds were registered to the project control and exported as rcp, e57, and xyz file formats. Additionally, utility investigation and mark out services were provided at a portion of the project area utilizing a combination of electromagnetic (EM) locators and ground penetrating radar (GPR). All found utilities were painted and/or pin flagged.





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FROM THE FIELD

I-80 EB, Delaware Water Gap, MP .50-1.55

Knowlton & Hardwick Townships, NJ

GEOD was contracted to provide surveying services to support this project for a retaining wall design and replacement along I-80 EB in Knowlton & Hardwick Townships, NJ.

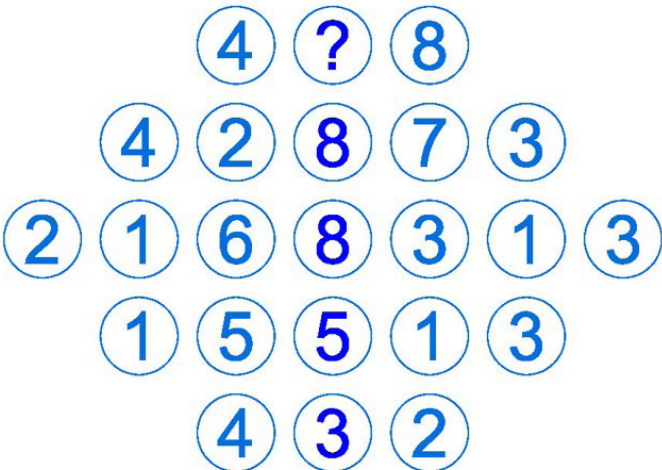
Services included establishing primary and secondary survey control. Conventional surveys were conducted to supplement aerial mapping and provide 1"=30' topographic mapping with 1' contours. Field locations were obtained at top of bank and bottom of wall, as well as delineated wetland flags and boring locations. Field crews located all cross drains along the 1,500' wall. Base maps were prepared by combining and incorporating all of the field edit data into the previous topographic mapping and updating the SelectCAD DTM, as needed. The mapping was provided in NJDOT spec MicroStation V8 in accordance with NJDOT Article 51. Additionally, establishing a monitoring program for specific areas was provided. Monitoring was conducted every three months.



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SPRING PUZZLE

To enter, simply deduce the numerical value of the question mark.



Email your answer to **marketing@geodcorp.com** by midnight on Friday, May 26, 2023.

A random winner will be drawn from the correct entries, and will receive a \$200 Amazon gift card. As always, if you are precluded from accepting such a prize, we'll be delighted to donate a check for \$200 to the charity of your choice.

Enjoy the puzzle and good luck! Of course, as always the decision of the judges is final!

Visit www.geodcorp.com for the winner and solution to the puzzle.