

# HOOSIER SURVEYOR

WINTER 2021

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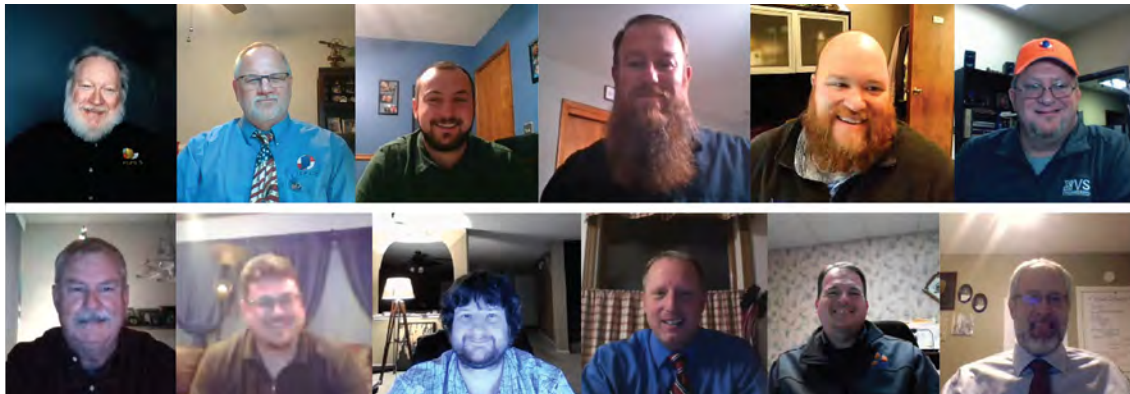
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# Cover Image

In a bit of digital conference magic, 2021 ISPLS President Norman Hiselman (left) presents 2020 President Eric Banschbach with the Past President's gavel plaque in recognition of his service.

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# From the Editor

Deadlines for the Hoosier Surveyor:

- Winter: **February 1**
- Spring: **May 1**
- Summer: **September 1**
- Fall: **November 1**

The Hoosier Surveyor is published quarterly by the Indiana Society of Professional Land Surveyors to inform land surveyors and related professions, government officials, educational institutions, libraries, contractors, suppliers, and associated businesses and industries about land surveying affairs.

Articles and columns appearing in this publication do not necessarily reflect the viewpoints of ISPLS or the Hoosier Surveyor staff, but are published as a service to its members, the general public, and for the betterment of the surveying profession. No responsibility is assumed for errors, misquotes, or deletions as to its contents.



## Mike Davis, Editor

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# President's Message

Norman Hiselman, PS, ISPLS President

Greetings to all. Are you ready for the new year? The convention is over and was very different. How many conventions can you attend in sweats, pajamas or whatever? I would like to know your thoughts on how it went, grumbles, kudos or any input you want to give. The Board of Directors of ISPLS is here to serve you. Tell us what you would like to see us do to make membership in ISPLS valuable. In turn I would ask you to volunteer for committees, attend board meetings, or just give us your thoughts and ideas.

At the general business meeting I expressed some of my ideas for what I would like to accomplish this year. I am going to repeat those statements in this column. For those 28 or so attendees who stayed for the meeting, you need not read any further, unless you want to, it's all right with me.

As you know, there has been an effort to make elementary and high school students aware of our noble profession, sort of a hook 'em while they're young strategy. We expanded that endeavor to include adult continuing education programs or trade schools, but constraints imposed by the Covid-19 pandemic have diminished the momentum. However, there exists a group that is somewhat ignored when it comes to promoting land surveying. The irony is, this group is comprised of those already working within the profession, our own nonlicensed personnel... the field crews, technicians, and draftsman. I know there is desire in this group to learn more about the job they are doing and calm uncertainties. Field crews are your eyes and ears on the ground for whatever type of survey you have embarked on. The draftsman interprets and illustrates the data. Sure, for the most part they do a good job of collecting that data or preparing the plat of survey, but do they

know the whys and wherefores? They are often treated as robots, but they aren't.

A few years ago, regional campuses of Purdue offered classes. Here in central Indiana, IUPUI routinely offered various survey related classes making it convenient for those who originally did not have a formal education in land surveying or those who had a degree in some other discipline to grow. Those courses also helped reinforce or refresh things learned years ago, perhaps changing the way one practices. I know those classes certainly changed the way I think and the way I approach things today. The hard truth is those opportunities are fading if not gone completely. It is my goal to provide learning opportunities for your nonlicensed employees, perhaps it will encourage them to wholly embrace the profession, again, they are not robots after all. This will be accomplished by providing videos, not in half or full day seminars, but in short series type presentations, perhaps lasting an hour or less. Something they can do at their leisure, picking what interests them.

Topics may include description writing, unwritten rights, the law and the surveyor and so on. There is another platform that can go hand in hand supporting this venture. It is my hope that surveying companies will partner with ISPLS in promoting the profession through education and involvement. I know there are companies that are active in the Certified Surveyors Technician program or commonly known as CST, and I salute you for your efforts. I have worked with companies in the past that actively held in-house educational sessions, but sadly that has waned in the past several years, the idea being they were too busy to continue.

You know, in my experience as a young instrument man the convention seemed to always be held at Stafford's Hotel in Indianapolis. The party chief I worked with at the time would

always break at lunch time and we would go and visit the exhibitors. As I walked through the convention hall and noticed all the surveyors and those wonderful technology advancements, I knew that I was part of something bigger than just some guy baking or freezing in the field, and I wanted to part of that. I encourage surveying/engineering companies allow your employees to attend at least the exhibitor's booths or at least sponsor your nonlicensed professionals as associate members of ISPLS. Do you not do the same for your licensed surveyors as members of ISPLS to help them grow? Supporting your techs, draftsman or crews can be done by simply creating formal sessions lasting an hour or so on a topic series — say every Friday morning you have them attend a presentation right there in your office before heading off to work. You may reason that the costs or down time may be counterproductive, but at what cost is there by not having completely knowledgeable employees? The idea is to make them feel they are more than hired hands and are part of an age-old and respected profession.

We are implementing a technician advisory group along with contributions from the Young

Surveyor's Network that can identify what the most valuable topics should be created first and what the needs of the nonlicensed person might be. If you would like to provide comment on this, let me know.

Although, as of late, Covid-19 has hampered our outreach endeavors, we will continue to pursue public exposure to the profession through schools, informative brochures and involvement with professional groups that use our services such as attorneys, title companies, Realtors and builders. We will continue and strengthen our support of higher learning through colleges such as Vincennes University and Cincinnati State, who are developing online classes and perhaps satellite campuses which will benefit us all.

I'll close by saying membership involvement is essential to making ISPLS stronger and able to meet the needs of our Indiana professionals. If you have an idea, let us know. Perhaps a committee could be formed with you leading it or on it to make sure your vision is brought to fruition. I am delighted and encouraged to serve you this coming year.

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# ISPLS 2021 Convention Awards Recap

## Atlas Award

### Charles M. Coyle Jr.

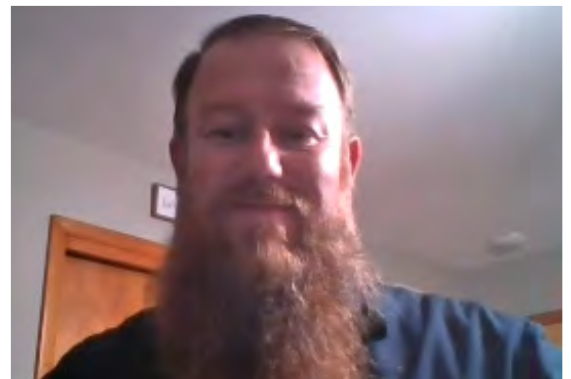
Charles Coyle Jr. was recognized as the 2020 ISPLS Atlas Award recipient for his continued dedication to the surveying profession. Coyle has been a member of ISPLS for over 30 years, participated on many committees, was the co-organizer of the Hoosier Hills Chapter and served on multiple boards, as well as being a two-time president of ISPLS. When he first started with INDOT, he did not know what his career would amount to but is proud of what it has become. Coyle said it was an honor to be on the board and work with everyone.



## President's Awards

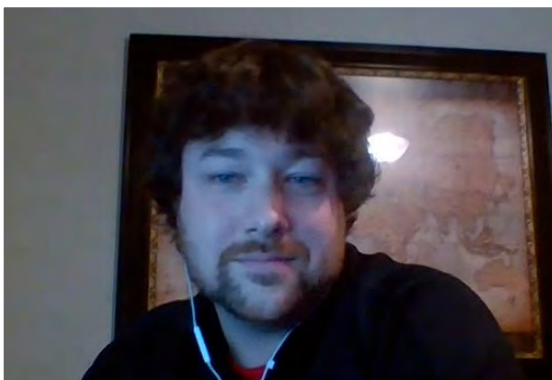
### Matt Badger

Matt Badger was recognized as a 2020 President's Award recipient for his meticulous attention to detail and for his efforts on the new coordinate reference system for the state of Indiana. Badger hopes everyone will enjoy the system and can work with it effectively and efficiently over their careers and the next generation.



### Nolan Mark

Nolan Mark has been closely involved with the NSPS Young Surveyors group and currently serves as our state coordinator and in the FIG Young Surveyors Conference. Since he became coordinator, he has been actively working to set goals, seek volunteer projects and opportunities for the group. He appreciates this award and says it wouldn't be possible without the others in the network.



# Trig-Star Scholarship Award

Joel Edwards

## Northeast Chapter Scholarship Award

Matthew Ewing: University of Maine

Robert Bridegam: Vincennes University

## Northwest Chapter Scholarship Award

Jeremy J O'Brien

## Southwest Chapter Scholarship Award

Legacy Scholarship: Keenen Lautner

Vincennes Scholarship: Carissa Gaier

Vincennes Scholarship: Bobby Barnes



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# Virtual Conference from Young Surveyor Perspective:

Levi Rednour, PS

This year's conference was a little different and posed a challenge to those organizing and presenting virtually. Like every year, multiple courses were offered each day to help everyone find something relevant to their everyday job or something they wish to learn more about. For me, the course regarding easements was something that piqued my interest and now I have a better understanding as to why it is difficult to extinguish easements. The virtual conference included a way to connect with fellow surveyors between classes. It was nice to see people communicating over chat and being able "sit next to each other" at virtual tables. For Young Surveyors, it is important to build relationships with others in the field. These relationships could lead to experienced surveyors mentoring and inspiring the future of these individuals. Even though the conference was missing the human connection of seeing people in person, the virtual conference accomplished its main goal of providing surveyors relevant topics to continue their education.

Coinciding with the conference, the Indiana Young Surveyors Network held a meeting and game night to give additional incentive for people to network and get to know each other. Levi Rednour and Ethan Hopf volunteered to be Co-Chair and Secretary, respectively, with Nolan Mark acting as Chair.

## What is expected for YSN in 2021?

In 2021, YSN is excited to highlight the following events:

### Thursday, February 19th

Virtual Trivia game coordinated by ASCE Young Members. This organization invited YSN and other Young Professional Networks. The winning team gets to donate their winnings to the charity of their choice.

### Saturday, March 27th

Statewide volunteering for GPS on Benchmarks day during National Surveyor's Week. It is a four hour minimum collection to help improve the National Spatial Reference System (NSRS) and prepare for modernization in 2022.

### Second Tuesday Each Month

"Roundtable Tuesday" Zoom Presentation with Professional Surveyors giving insight into topics like Drone Surveying, GPS on Benchmarks and Importance of field notes.

### Twice a Year Study Session

Zoom Meeting discussion on Fundamentals of Surveying Exam

Event reminders will be sent via email and presented on social media platforms.

## Who is Welcome?

Whether you are a field crew chief, CAD technician, SIT or PS, all surveyors are welcome to join. If you are someone who is interested in participating, please email [nolanmark3434@gmail.com](mailto:nolanmark3434@gmail.com). We are looking for active members who want to be included in emails for future events as well as Professional Surveyors who may be willing to lead a Roundtable Tuesday.

# Meet A Young Surveyor

Alex Daugherty, PS

My name is Alex Daugherty and I am 30 years old. I am originally from Tell City, IN, but now live in Newburgh, IN, with my wife and our son. I graduated from Vincennes University in 2010 with a degree in surveying technology. I currently work as a Project Surveyor for VS Engineering out of our Evansville office. Outside of office work, I am the President of the Southwest Chapter of ISPLS and also on my second year of serving with the chapter's Board of Directors.

Growing up I always thought I wanted to be an architect. While in high school, I worked for a residential construction company over the summers and my interests in the construction trades only grew. My grandpa held his PE in multiple states as a ceramic engineer and I like to credit him for my critical thinking and problem solving. My love for the outdoors and interest in construction ultimately

made me start to look into alternative careers. After an orientation visit to Vincennes, I knew surveying would be a good fit. If you were to ask Bill Clark he would tell you, "It's something in that Perry County water."

Over the past 11 years I have been fortunate enough to work on many interesting projects that cover multiple aspects of our trade. Surveying not only provides for my family, but it is incredibly gratifying knowing the work that I do is improving the infrastructure down here in "God's Country." I always look forward to the oddball requests from clients that require capturing measurements you don't normally get in your standard topo. Applying new technology and modifying current techniques is just one of the many things that make this profession great.



# Meet A Young Surveyor

Levi Rednour, PS

I work for Marbach, Brady & Weaver, Inc., where I am currently a Technician/Crew Chief. I spent five years in the field where I was exposed to many different types of surveying including pipeline as-builts, construction staking for major power lines across the state, many different types of boundary surveys and topographic surveys. The last two years I have been working inside. I prepare jobs for crews, process field data, and prepare descriptions and survey reports for the Surveyor of Record. The experience I gained from being in the field certainly prepared me to visualize what the field data means.

I am 30 years old and a graduate from Purdue University Fort Wayne where I received an associate degree in Civil Engineering Technology. I have also taken supplemental classes from the University of Wyoming in order to take the next steps to become a licensed surveyor. I was born and raised in Cicero, IN. After finishing college, I moved to South Bend, IN.

My interest has always been in the construction field, but surveying was not on my radar when choosing a college degree. Surveying is not widely known to younger generations and everyone in high school talks about engineering, health care, and technology-driven careers. My first two semesters of college included surveying classes which gave me my first exposure. It was not until switching degrees, and looking at the classes that I had taken, did I really think about long-term careers that really captured my interest. Soon after graduation and moving to South Bend, I started working for Chris Marbach. Chris and others have inspired my drive to continue to increase my knowledge and get more involved within the profession. Chris has encouraged me to attend the past four ISPLS conferences. Through ISPLS I joined the Indiana Young Surveyor's Network in 2020 and in 2021 I volunteered to be co-chair.





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# An Update on the Indiana General Assembly Legislative Session

Michael O'Brien, ISPLS Lobbyist, 1816, Inc.

Gary Kent, PS, ISPLS Government Affairs Committee Chairman

The Indiana Legislature has reached the halfway point of the 2021 legislative session. Any bill that has not yet passed its chamber of origin is "dead." Following a short break, both the House and Senate resumed legislative activity on March 1, and we expect a sprint to the finish (April 29).

The 2021 session began slowly in January, immediately in the wake of the holiday COVID surge. Legislators and lobbyists alike were not sure what to expect this session. Throughout the interim, leadership in both chambers stated a reluctance to delve deeply into several issues and sought instead to focus on the budget, redistricting and COVID-related bills.

Leadership introduced new measures aimed at promoting health and safety at the Statehouse, including bill filing limits and committee hearing limits.

The Senate implemented a new chamber seating chart, utilizing the public balcony, to promote social distancing, and moved its caucus meetings to the Supreme Court chamber. For the most part, the Senate maintained its traditional meeting schedule throughout the first half of the session. The House moved its floor activities to a conference room in the government center and only held committee hearings in three large rooms. They began the session by meeting only once per week and did not resume the traditional meeting schedule until February.

The safety measures are working, and the legislative session has maintained a relative sense of normalcy. Recall that the only scheduling hiccup was not COVID-related. All legislative business during the week of January 18 was canceled due to credible threats of uprisings at state capitols across the country. That lost week, and the COVID meeting limitations, led to packed committee calendars for the entirety of February.

Despite the stated desires of leadership to focus on fewer issues and have less activity this session, the cadence and schedule of activity is mostly moving at the normal, fast pace. The bill filing limits led to 25% fewer bills being filed compared to the 2019 long session. However, bills are moving through the process at about the same rate with 25% of House bills (28% in 2019) advancing, and 40% of Senate bills (34% in 2019) advancing.

One of the first bills to move through the process and pass into law was HB 1056. This bill eased the requirements to record a document with a county recorder. Legislation was passed in 2020 that put strict witness requirements before a document could be legally recorded. This caused backlogs and issues recording documents, especially with COVID restrictions in place. The legislature moved that bill through in record time and it was signed by the governor.

Sen. Blake Doriot, who also serves on the ISPLS legislative committee, passed SB 38 on to the house. This establishes for legal surveys a definitive statute of limitations for when a claim of adverse possession is to be brought by an adjoining land owner. This settles those legal surveys after that statutory time frame has expired. It is being sponsored in the house by Rep. Jerry Torr, who is also the chairman of the House Judiciary Committee. It is awaiting a hearing.



# Legal Surveys

Bryan Catlin, PS

*The goal of this column is to provide brief summaries of recent Indiana Court of Appeals and Supreme Court cases involving topics related to surveying practice, certainly not to provide legal advice. Information is gathered from the courts website at [www.in.gov/judiciary](http://www.in.gov/judiciary). Comments or suggestions for future columns are welcome by email to: [Bryan.Catlin@indy.gov](mailto:Bryan.Catlin@indy.gov).*

## **Miami County Board of Commissioners v. US Specialty Insurance Company as Subrogee of the City of Peru, Indiana, Indiana Court of Appeals Case No. 20A-CT-953, October 16, 2020**

I first became aware of this case because of a short article on the Indianapolis Star website. On January 26, 2016, a logjam on the Wabash River was pressuring one of the piers of the Wayne Street Bridge in Peru. County employees planned to move logs off the pile with a homemade tool made from a 12-foot-long, 800 to 1000 pound, combine rotor with welded metal fingers added. County Highway employees went to the bridge with the excavator they planned to use to see if the arm would be close enough to power lines that it would need to be wrapped with safety materials. While they were on the bridge, City of Peru Utilities employees approached them and learned about the plan to remove the logjam. They informed the County employees that there were two water lines near the bridge, one about thirty-six feet from the bridge, above the riverbed and visible if the water is low enough. The second line is between the first line and the bridge and buried in the riverbed. The County employees did not ask for a map, that the lines be marked, or inform the City employees when the work would be done.

About two years earlier, the County had planned to use a backhoe in the river to dismantle the logjam. A City Utilities employee had showed a map of the water lines to one of the County employees who was also present on January 26, 2016. When told by the City employee that the backhoe ran the risk of hitting the water lines, the County employees stopped their work.

On January 28, 2016, the County set up the excavator on the bridge, lowered the rotor to the logjam and began moving logs off the pile. After moving approximately ten to fifteen logs, the excavator operator, who could not see the logjam over the edge of the bridge, set the rotor on the riverbed while keeping some tension on the cable holding the rotor to inspect the logjam while the other employees took a break. Even without the full weight of the rotor on the riverbed, water began bubbling up, indicating one of the lines had broken. The County did not contact the City to notify them of the broken line.

City employees immediately noticed water pressure had dropped from sixty-five to forty-five pounds [sic]. A City employee saw a County vehicle driving away and discerned what had happened. City employees shut down the water line, but it was too late to avoid a citywide boil order. City employees from various departments went door to door informing residents about the boil order. City employees worked around the clock for a couple of days while repairs were made. The City's insurer paid \$103,370.94 for repairs and the City paid a \$1,000 deductible.

On January 23, 2018, the City and the Insurer filed a complaint against the County in Miami Circuit Court, alleging that they had sustained damages as a result of the County's negligent

# Let's celebrate!



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and careless misconduct. A bench trial was held on November 26, 2019 — and on March 27, 2020, judgment was entered in favor of the City and Insurer, finding that:

- The County employee involved in both removal schemes was familiar with the terms of the Damage to Underground Utilities Act (DUFA) as he had made requests under the act for other excavation projects on behalf of the Highway Department;
- No formal locate call had been made;
- The County had a duty to exercise reasonable care to prevent harm to the water lines;
- The County had breached its duty of reasonable care by failing to determine the precise location of the water lines;
- DUFA applies to protect underground facilities from damage due to excavation or demolition;
- If DUFA applies, the County was required to request a formal locate or otherwise comply with DUFA, which they failed to do, and;
- Under either common law or DUFA, the plaintiffs are entitled to judgment against the County.

The County was ordered to pay \$104,370.94 and appealed the judgment.

On appeal the County had three arguments: DUFA abrogated (did away with) common law negligence; the County was not required to request a locate under DUFA because it was not engaging in excavation or demolition; and if common law negligence applies, the trial court erroneously found the County acted negligently. The Appeals Court found that DUFA did not apply in this case because the logjam was piled up to six feet above water level in the river, not in or on the ground. However, the County had known about the water lines in the area for at least two years, did not notify the City when they

were doing the work, and did not notify the City, but just drove away after breaking the water line. The trial court judgment that the City had proved all elements of common law negligence was affirmed.

I must admit I was a little surprised that even though the portion of the logjam being worked on was above the riverbed, it wasn't considered excavation once the heavy rotor and its metal fingers were placed on a water saturated riverbed. The court may have considered that as like damaging a utility line by driving over it with a heavy vehicle, but I would be surprised if the fingers didn't penetrate the riverbed. Maybe no evidence of that was evident or presented at trial. This is one of the drawbacks of reading court opinions: you don't see all the information that was, or wasn't, presented and argued.

**Dennis Millikan and Vicki Millikan v. City of Noblesville and KACE, LLC, Indiana Court of Appeals Case No. 20A-PL-1061, December 7, 2020**

From the Hamilton Circuit Court comes a case that involves both adverse possession and an abandoned railroad right-of-way.

The Millikans owned and lived on property south of an approximately fifty-foot-wide Conrail right-of-way from 1972 until 2018. To the north of the Conrail right-of-way and the Millikan property is lot five in the Park 32 Subdivision, a commercial subdivision recorded in 1978. Kace acquired lot five in 2011. The property in dispute here is the twenty-five feet north of the centerline of the former tracks and which extends 277 feet west from Willowview Road. By 1982, Conrail had abandoned the right-of-way in question. Beginning in 1982, Millikan began to exercise control of the right-of-way when Dennis personally removed the rails, ties, and stone. Dennis used many of the ties and the berm the railroad had run on for the backstop of a shooting range. Millikan cut down a hedgerow in the disputed property and planted grass and a row of evergreen trees. For the next thirty-three years, Dennis watered, fertilized, and



mowed the grass in the disputed area, raked leaves, trimmed and cared for the trees they had planted. The grass was mowed when the rest of their property was mowed. Nobody mowed or maintained the disputed area other than the Millikans between 1982 and 2016. The neighbors, including a former owner of the Kace property, recognized the Millikans as the owner of the disputed property.

On November 6, 1991, the Millikans recorded an "Affidavit In Support of Vesting Interest In Abandoned Railroad Right Of Way" with the Hamilton County Recorder. The affidavit included a legal description of the entire railroad right-of-way bordering the Millikan property, including the disputed area. This affidavit claimed title per Indiana Code 8-4-35-5. Under this statute, Millikan obtained title to the south portion of the right-of-way, but not the disputed area. The Recorder's Office stamped the affidavit as "duly entered for taxation."

No property taxes were ever assessed on the disputed area. Drainage assessments were assessed for the years 2009-2015, but there were no special assessments for the years 2000-2009. No evidence was presented about any possible special assessments before 2000. The Millikans paid property taxes and special assessments on their property. Noblesville was listed as the owner of record of the disputed property based on a 1991 quitclaim deed from the White River, Noblesville, and Westfield Railroad, Inc., even though Noblesville was aware that they had no ownership interest in the disputed property. Despite this, Noblesville paid the drainage assessments on the disputed property from 2010-2016.

Around 2014, Noblesville began showing an interest in acquiring the old railroad right-of-way for use as the Midland Trace Trail. On August 7, 2014, Dennis attended a hearing where he informed the Noblesville City Engineer the Millikans owned the entire former right-of-way along their property. When Dennis met with Noblesville's appraiser on September 30, 2015, he told him the same thing and the

appraiser included that in his report. Despite this, Noblesville entered into an agreement with Kace to buy a portion of the disputed area. On December 15, 2015, Kace signed a **Warranty Deed** (emphasis added) transferring title of most of the disputed area to Noblesville and retaining the north five feet. Kace never maintained any portion of the disputed area.

In July of 2016, Noblesville filed a condemnation action to acquire the south half of the railroad right-of-way from the Millikans. This action was eventually settled. Even after the trail was completed, Kace never mowed the disputed area, allowing it to become overgrown.

On December 14, 2018, the Millikans filed a complaint for title by adverse possession and trespass against the City. After other actions, the adverse possession claim had a hearing on March 10, 2020.

On March 16, 2020, the trial court issued an order denying the Millikans' motion for summary judgment and granting summary judgment to the City. In the order, the court found that the Millikans had satisfied the common law elements of adverse possession, but that they had failed to reasonably and in good faith believe they had paid special assessments during the period of adverse possession, as required by Indiana Code 32-21-7-1. The Millikans filed a motion to correct error, noting title had vested in them before any special assessments were assessed against the disputed area. Noblesville filed a motion to deny the motion to correct error, which Kace joined. The motion to correct error was denied by the trial court and this appeal followed.

On appeal, the court found that since title appeared in the name of Noblesville, no property taxes or special assessments were assessed until 2010, and since the 1991 affidavit was stamped "duly entered for taxation", the Millikans could reasonably believe that the affidavit put authorities on notice they were taking responsibility for taxation. Previous cases have established that adverse claimants only need to pay the taxes falling on the property, if none are assessed, none need to be paid.

The judgment of the trial court was reversed and remanded back with instructions to enter summary judgment in favor of the Millikans.

**Eric Holcomb, in his official capacity as Governor of the State of Indiana v. City of Bloomington, Indiana Supreme Court Case No. 19S-PL-304, December 15, 2020**

Briefly, this case involves a 2017 state statute that stopped Bloomington's proposed annexation of several areas and prevented any annexation of those areas for five years. In 2017, Bloomington had started the process of annexation, and had introduced ordinances for some areas on March 29, 2017, but had not yet adopted those ordinances. While this was happening, the legislature enacted IC 36-4-3-11.8(d) to stop any annexation ordinances introduced between January 1, 2017, and June 30, 2017, that had not been adopted by the statute's effective date of April 30, 2017, as well as prevent any annexation of those areas until after June 30, 2022. This limitation only applied

to Bloomington's proposed annexation. The City of Bloomington brought suit against the Governor in Monroe Circuit Court challenging the constitutionality of the statute which the trial court eventually did find unconstitutional. The Governor directly appealed to the Indiana Supreme Court with two issues: whether Bloomington can seek relief (they had already spent \$800,000 on the annexation) from the Governor and whether the statute is unconstitutional.

The Indiana Supreme Court found that because of the unique way the statute was drafted, Bloomington could challenge the statute in an action against the Governor and that the statute was in violation of Article 4, Section 23 of the Indiana Constitution because it was a special law targeting only Bloomington. There are thirty-three pages of opinion if someone wants to know more details of the court's reasoning.

Interestingly, two of the justices concurred in this opinion, one concurred in the result, and two dissented.



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**Richard J. Mahoney v. Kevin Wolfe and Maxine Wolfe, Indiana Court of Appeals Case No. 20A-CT-748, November 10, 2020 - MEMORANDUM DECISION - not regarded as precedent**

Here the Wolfes own two lots on Wolf Lake with their house on half of one and one being vacant. In the summer of 2018, they had a contractor apply for a permit to put an eleven-by-thirteen concrete pad on the vacant lot (at a location shown by a hand drawn X on a survey, an image of which was included in the opinion). The permit was issued, and the pad was built. Later that year Kevin Wolfe applied for a permit to put a ten-by-twelve-by-ten-foot [sic] shed on the pad. This permit was issued, and the shed was built.

In March 2019, their neighbor Mahoney filed a complaint alleging that the shed deprived him "of the fair enjoyment of his land by maliciously obstructing his lake view" and that the shed is a nuisance that violates the Hammond City Zoning Ordinance because it is in a side yard and requesting an order that the shed be removed.

After a bench trial in the Lake Superior Court in March 2020, the court issued an order that the shed was in compliance with the zoning ordinance because no probative evidence was presented that the shed was closer than three feet from a lot line; that the lot it was erected on had no buildings so, by definition, the lot could not have a back, side or front yard; and the ten-foot distance requirement from a main building could not apply. Judgment was entered in favor of the Wolfes, and Mahoney appealed.

Mahoney's argument was that the shed was in Wolfe's side yard, not the required rear yard. Mahoney offered nothing more than this allegation to support his claim that the zoning ordinance was violated. Two of the judges affirmed the trial court judgment, noting that "bald assertions of error unsupported by either cogent argument or citation of authority result in waiver of any error on review." Those judges refused "to sift through the record attempting to locate trial court error so that we might state appellant's case for him." Interestingly,

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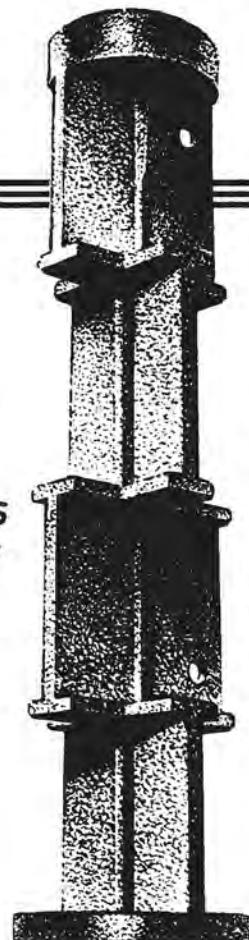
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one judge dissented, and did go through the zoning ordinance; noted that the zoning board's interpretation of the ordinance in support of the permit was not in the court record, and found an argument for reversing the trial court.

**Pines of Greenwood, LLC and Arbor Homes, LLC v. The Village Pines at the Pines of Greenwood Homeowners' Association, Inc., Indiana Court of Appeals Case No. 20A-PL-373, November 10, 2020 - MEMORANDUM DECISION - not regarded as precedent**

This case from Johnson Superior Court concerns a long-running conflict between a homeowners association (HOA) and the developer and builder of the subdivision. In 2011, the HOA sued the developer and builder for breach of contract involving a dispute about neighborhood covenants. The trial court entered judgment for the developer and builder, the HOA appealed, and the trial judgment was reversed for a hearing on the HOA's damages. On remand, the trial court determined the HOA suffered damages in excess of one million dollars and the current appeal was raised.

The appeals court affirmed that the HOA did have standing to recover damages; remanded for clarification the calculation of the amount of damages the HOA was awarded; reversed the 18% interest rate used in calculations in favor of the 8% statutory rate from November 2011; and vacated \$148,275.00 in late fees deemed to be an impermissible penalty.

**Patricia Whitt v. Denise R. Devos, Indiana Court of Appeals Case No. 20A-CT-810, December 30, 2020 - MEMORANDUM DECISION - not regarded as precedent**

Here is a case that might have been affected by the legislation ISPLS is proposing this session about legal surveys and adverse possession.

Here an unchallenged, long-standing fence, line of elm trees, shed, and garage location

were found to be across a lot line between two residential properties in Argos. The line was not questioned until Whitt tore down her garage and wanted to replace it with a new, larger garage. Since this required a variance, the Board of Zoning Appeals required a survey be performed to establish the property line. Whitt had a legal survey performed (according to the opinion) and recorded with the Marshall County Recorder on August 18, 2017, which revealed Devos's improvements were across the lot line. On May 22, 2019, Whitt filed a complaint against Devos in Marshall Circuit Court. Devos claimed ownership by adverse possession and the trial court agreed. Whitt appealed and the judgment of the court was affirmed.

*Bryan F. Catlin, PS has been registered as a Land Surveyor in Indiana since 1991. He holds B.S. Land Surveying Engineering and M.S. Engineering (Geodesy) degrees from Purdue University.*

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# GPS on Bench Marks: A Perfect Activity for National Surveyors Week



Jacob Heck, NGS Great Lakes Regional Geodetic Advisor

It's getting to be that time of year again: National Surveyors Week is just around the corner. This exciting week comes about every March, starting on the third Sunday of the month. This year that happens to be March 21-27. The nice thing about this time of year in Indiana is that the leaves are still off the trees and the snow has generally melted (unless me saying that jinxes it!), plus the brush and tall grass haven't grown back yet. These conditions make this a great time of year to recover bench marks and to make GPS observations.

As you are probably aware, the National Geodetic Survey (NGS) is modernizing the

National Spatial Reference System (NSRS), moving from the existing horizontal and vertical datums into state-of-the-art geometric reference frames and a geopotential datum. To make adoption of the new frames as straightforward as possible, it will be imperative to have a strong tie between the old and new systems. NGS will develop transformation tools that will transform data in an old frame into a new frame (and vice versa). The relationship between the old and new frames will vary from place to place, based on the biases and tilts in the old system. This variation can be significant (see Fig. 1), even over short distances in places with topographic

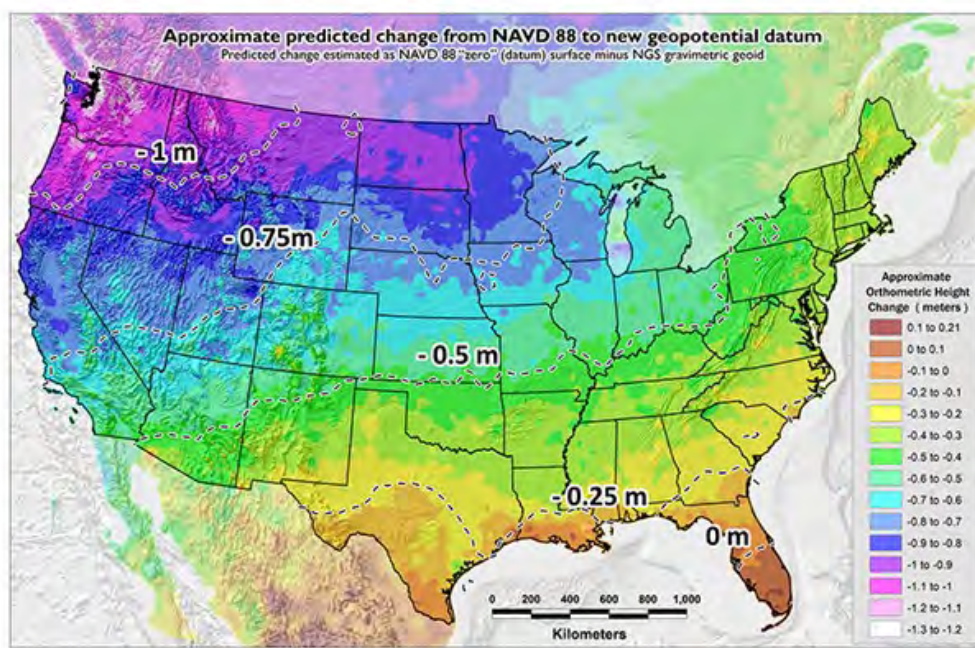


Figure 1: A map of the predicted change from NAVD 88 to NAPGD2022. There is a general trend from southeast to northwest, but there are a lot of variations in the change across the country.

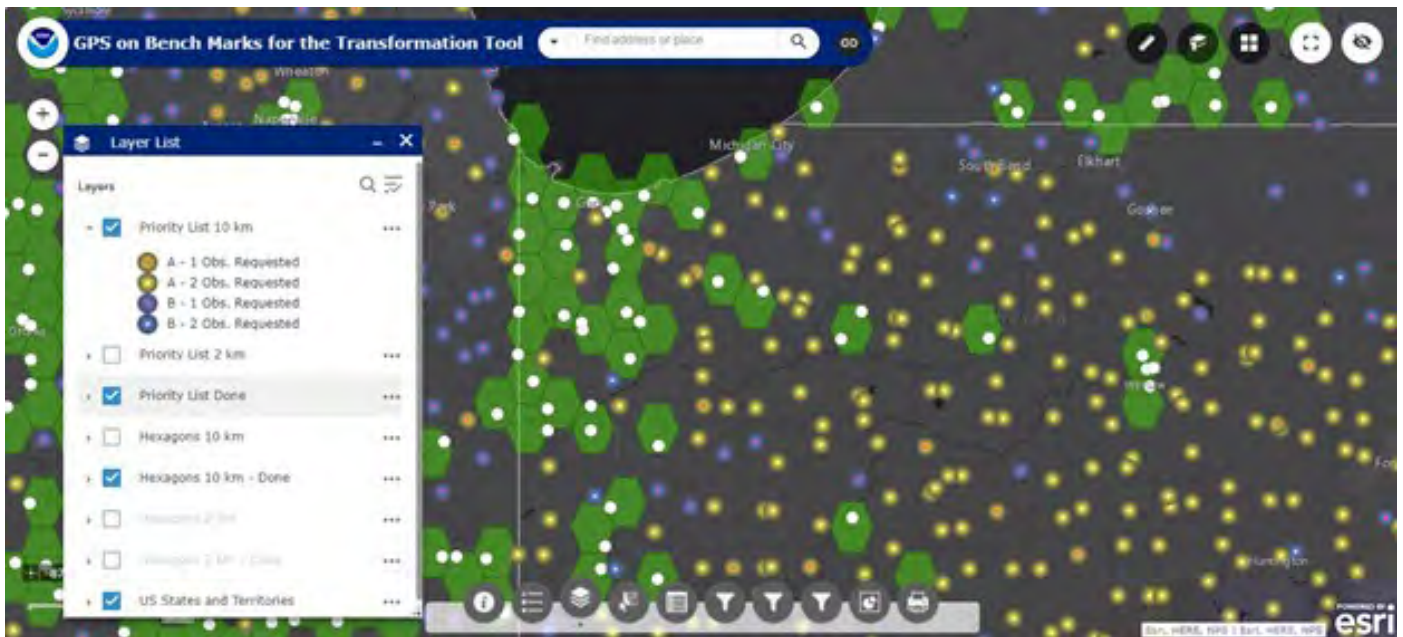


Figure 2: GPS on Bench Marks web map, showing the northwestern portion of Indiana. The white dots represent marks from the priority list that have been completed, the yellow dots are the "A" priority marks, blue dots are the "B" priority marks, and the green hexagons show the areas that have completed coverage at 10-km.

relief. It is important for NGS to have enough local data to discern these variations and improve NGS' national scale transformation tools in a local area.

This is where you come in. The more data you help NGS collect in your area, the better the transformation tool is expected to be in the places where you work. NGS no longer has roving bands of surveyors like we did during decades that led to the development of NAD 83 and NAVD 88. Today, we rely on your help to crowd-source this important data collection and make these tools as good as they can be.

Another very good reason to contribute to the GPS on Bench Marks campaign is to prepare yourself and your region to take full advantage of the Modernized NSRS when it is released. GPS data submitted to NGS before December 31, 2021, will be used to compute coordinates that will be rolled out with the new system. As NGS' Blueprint 3 - Working in the Modernized NSRS explains, Reference Epoch Coordinates

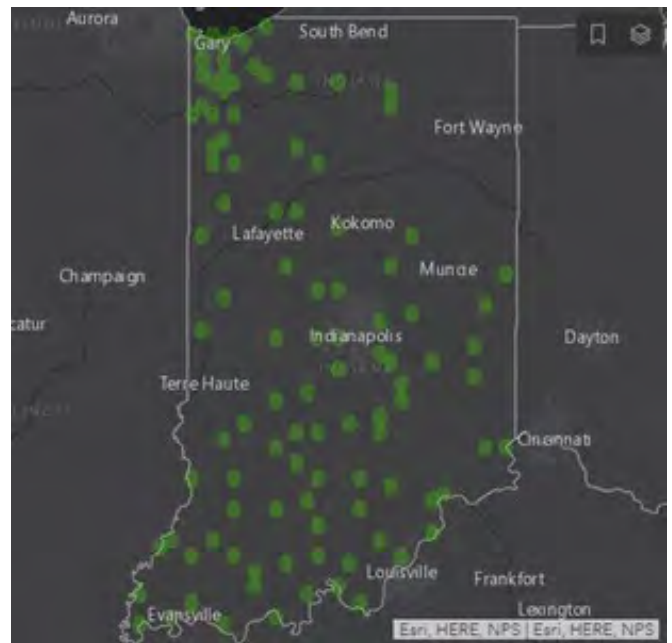


Figure 3: GPS on Bench Marks progress in Indiana as shown in the GPS on Bench Marks Progress dashboard.

(RECs) will be computed on regular intervals of every 5 or 10 years, and the data that go into those computations are likely to be time limited. NGS has proposed to limit the data that go into the initial REC adjustment to data that was submitted between 10 years before the reference epoch and 2 years after the reference epoch. For the first reference epoch (2020.00), this means that data collected between 2010.00 and 2021.999999 (end of UTC day on December 31, so just before 7 p.m. Eastern). If your favorite mark doesn't have an observation since before 2010, then you need to get out there and observe it this year in order to guarantee that you'll get 2020.00 Reference Epoch Coordinates on it when the new frames are released.

The GPSonBM Campaign for the 2022 Transformation Tools has set a lofty goal to get 10-km spatial coverage across the entire Nation. GPS on Bench Marks is easy to participate in and a perfect activity for National Surveyors Week. Any participation helps, even if it's just going out and submitting a mark recovery with our slick new Mark Recovery Webpage.

NGS provides a series of online tools that help with the process. There's the GPS on Bench Marks priority map (Fig. 2) that shows the marks that would be preferred for occupation. Keep in mind, however, the list of priority marks on this map is automatically generated by an algorithm created in the office in Silver Spring, MD, so it is certainly not perfect. You likely know your area better than we do at NGS, so if you know of a better bench mark with a good published NAVD 88 height in your area, then go ahead and recover, observe, and submit that one and it will update the map as well.

There has been a good deal of activity in the state. You can keep up on the overall progress of the GPS on Bench Marks campaign through the GPSonBM Progress dashboard. (Fig. 3)



Figure 4: The new NGS Mark Recovery form, accessed at [https://geodesy.noaa.gov/cgi-bin/mark\\_recovery\\_form.prl](https://geodesy.noaa.gov/cgi-bin/mark_recovery_form.prl)



Figure 5: An example of GPS equipment setups on a bench mark



The steps for participating in GPS on Bench Marks are:

### 1. RECOVER

Starting with the GPS on Bench Marks webmap, search out preferred bench marks in your area. Use the mobile-friendly NGS mark recovery tool (Fig. 4) to report the condition of the mark and send in a couple of photos: one at eye level, one close up clearly showing the stamping, and one that shows the surrounding environment.

Remember that safety is the most important thing. Don't go out of your way into a potentially dangerous or restricted area to contribute to GPS on BM.

### 2. OBSERVE

Using your survey-grade GPS equipment that logs at least dual-frequency GPS (L1/L2) full wavelength carrier phase observables, perform a 4 hour (or longer) observation on the mark at intervals of 15 or 30 seconds. A fixed-height tripod is encouraged since it helps eliminate errors (Fig. 5). Take photos of the mark (close up and eye level), take one horizon photo (preferably facing south) and note any changes to the existing mark description.

### 3. REPORT

Using OPUS Share, report your observation to NGS. Be sure to enter the correct antenna height and antenna type. An incorrect antenna type can cause errors of 10 cm or more and a blunder in the antenna height value will directly affect the final results. To share the solution, select "Options" and then from the dropdown next to "share my solution" select "Yes, share" (Fig. 6). This short video explains the process well.

One more thing – 2021 is really special since the deadline to submit data to go into the transformation tool is due December 31, 2021. So get out there and observe. It's fun, it's easy, it's a great activity to do as a chapter, it helps NGS, and it helps you. All of your work is greatly appreciated, and everyone's contribution helps.

The image is a screenshot of the OPUS Today web interface. At the top, there are links for 'planned improvements' and 'support / feedback'. The main content area includes a text input field for '0.000 meters above your mark' and a label 'antenna height of your antenna's reference point'. Below this is a text input field for an 'email address' with a note that solutions will be sent there. A section titled 'Options to customize your solution' contains several dropdown menus: 'formats' (set to 'standard'), 'base stations' (with 'Use' and 'Exclude' sub-sections), 'state plane' (set to 'let OPUS choose'), and 'my profile'. At the bottom of this section is a 'share my solution' dropdown menu set to 'Yes, share'. Below the options are two buttons: 'Upload to Rapid-Static' (for data 15 min. - 2 hrs.) and 'Upload to Static' (for data 2 hrs. - 48 hrs.). A footer contains a disclaimer and website information.

Figure 6: Share your solution when you upload it to OPUS. Select "Options" and then from the dropdown next to "share my solution" select "Yes, share".

For more information, visit the GPS on Bench Marks webpage <https://geodesy.noaa.gov/GPSonBM/>.

Jacob Heck is a young surveyor and the National Geodetic Survey's Great Lakes Regional Geodetic Advisor. He can be reached at [jacob.heck@noaa.gov](mailto:jacob.heck@noaa.gov).

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# Future City Competition Challenges Students

Nolan Mark, PS



This year I took part in judging the DiscoverE Future City competition. DiscoverE works to ensure that people everywhere understand how engineers, technicians and technologists make the world a better place. Future City is a project-based engineering education program that challenges middle school students to imagine, design and build cities of the future. Each city has to incorporate a solution to a design challenge that changes each year. This year's challenge, Living on the Moon, asked teams to design a futuristic lunar city and provide examples of how the city uses two moon resources to keep its residents safe and healthy.

As a part of Future City, the National Council of Examiners for Engineering and Surveying (NCEES) sponsors a special award: Best Land Surveying Practices. This award is presented at both regional and final competitions. The NCEES Best Land Surveying Practices Award recognizes the design that employs the best land surveying practices, taking into consideration the high standards used by surveyors to protect the health, safety and welfare of the public. While this year's competition could not be held in person, judging and submissions were still able to take place virtually. Because the teams were not able to present in person, submissions were made in PowerPoint format, and short videos were made to show certain aspects of their city design.

With the changes being made with submissions, changes were also made in how teams were judged in their award category. This year the judges were asked to assess teams in three areas: Did the team have a design process that employed excellent land surveying planning strategies such as using mapping and shows

topography that incorporates clearly defined areas of the city; explains why city features are placed in certain locations; and shows an understanding of the role of land surveying in the development of a city with high standards for safety and quality of life for citizens. The team that best displayed these ideas in the regional competition on Jan. 23 was Project Fallen Angel from Kekionga Middle School in Fort Wayne. "Land Surveyors make precise measurements to determine boundaries and provide data relevant to the shape and contour of the planet's surface," the team explained. "To determine our location, we researched various moon maps and also studied lava tubes before deciding on the Shackleton Crater area ... it offered area to be used above and below the surface as well as plenty of sunlight for energy."

While COVID-19 has not provided an ideal situation in this past year, it was uplifting to begin the year seeing students adapt and still push through obstacles to complete their projects. I would like to thank NCEES Marketing and Outreach Coordinator Marisa Trzemzalski for reaching out to me and asking if I would take the time to judge. I hope that next year I may be able to meet some of these students to talk about land surveying and to see if their interest in the field may lead into a career path to their future. If you would like to learn more about Indiana Future City competition or how to be involved as a mentor or judge, head over to its website at [www.etcspfw.edu/fcc](http://www.etcspfw.edu/fcc).



# Trivia Showdown Benefits Charities, Participants

Mike Davis

ISPLS members were among those who got involved when Trivia became a virtual activity during the pandemic. The Feb. 18 event, which was hosted by the Younger Members Group of the American Society of Civil Engineers Metropolitan Indianapolis Branch, raised money for four Indianapolis charities.

Matt Stocker, a project engineer for HNTB Corporation, coordinated the event and said 24 people took part. The two-member teams represented various career fields, including bridge, survey, roadway, water and transportation design. A special effort was made to mix new faces in forming the teams, to expand networking and make new friends.

The charities which benefited were The Julian Center, Second Helpings, Horizon House and ACE (Architecture-Construction-Engineering) Mentor Program. Individuals donated to all of the charities before the event, and the "winner's pot" provided by donations from ASCE Younger Members and ISPLS was also divided among them.

"As of right now there is no plan to host another event in the near future, but there always could be," Stocker said.

This session's questions are listed below. Answers are on Page 30.

## Round 1

- Q1: How long was the Chicago Cubs' world series draught until they finally won in 2016?
- Q2: The man behind the Nobel Peace Prize, Alfred Noble, is most famous for inventing what?
- Q3: What year did Space Jam come out?
- Q4: Mark Twain's characters Tom Sawyer and Huckleberry Finn live in which U.S. State?
- Q5: Who dueled Alexander Hamilton, a founding father of America, ultimately killing him on July 11, 1804?

## Round 2

- Q1: Which Icelandic volcano erupted in 2010 and caused major disruption to air travel?
- Q2: Name one member, current or past, of the hip Hop Group Black Eyed Peas who isn't Will I Am or Fergie.
- Q3: In 1971, this boxer gave Muhammad Ali his first-ever loss in the realm of professional boxing. What was his name?
- Q4: Who was Hermione's date to the Yule Ball in "Harry Potter and the Goblet of Fire"?
- Q5: How many heart(s) does an octopus have?

## Halftime Question to Bet Points On

Put the following NFL Super Bowl Halftime musical performers in order starting with the most recent (current) to oldest (last) performance.

## Round 3

- Q1: Which U.S. state is home to the Rock and Roll Hall of Fame?
- Q2: Name the two mountaintops mentioned in the song "Africa" by the rock band Toto.
- Q3: What food item does Oliver Twist want when he says, "Please sir, may I have some more?"
- Q4: What was the name of the main female character in "The Terminator"?
- Q5: Which country ends in the letter Q?

## Round 4

- Q1: What name did an NFL player legally change his name to in order to match the number on his jersey?
- Q2: In which date did the first hot air balloon ride take place?
- Q3: In "The Office" (American Series), who does Michael Scott hit with his car and later have a Fun Run for?
- Q4: Name two of the three islands that make up the "ABC" islands in the Caribbean.
- Q5: Where was the entire trilogy of "The Lord of the Rings" filmed?

## Final Question to Bet Points On

Put the following colors in order starting with the cheapest to most expensive bottle of Johnnie Walker Whiskeys: Black, Blue, Green, and Red



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# Trivia for a Cause Answers

## (Questions on Page 28)

### Round 1

A1: 108 years

A2: Dynamite

A3: 1996

A4: Missouri

A5: Aaron Burr (accept first or last name only)

### Round 2

A1: Eyjafjallajökull

A2: Apl.de.ap, Taboo, J. Rey Soul, Kim Hill (only 1 right answer needed)

A3: Joe Frazier

A4: Viktor Krum (accept first or last name only.)

A5: 3 hearts

### Halftime Question to Bet Points On

Answer: Katy Perry, Beyonce, Bruce Springsteen, Prince

### Round 3:

A1: Ohio

A2: Mount Olympus and Mount Kilimanjaro

A3: Gruel

A4: Sarah Conner (accept first or last name only.)

A5: Iraq

### Round 4

A1: Chad OchoCinco (only accept first and last name)

A2: 1783

A3: Meredith Palmer (First or last name ok)

A4: Aruba, Bonaire, Curacao

A5: New Zealand

### Final Question to Bet Points On

Answer: Red, Black, Green, Blue

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