



**SPECIAL POINTS OF INTEREST:**

- Thanks to all attendees, speakers, moderators, vendors, etc. for making the 2016 **IMAGIN Conference** a huge success!
- Volunteer with **IMAGIN** by joining one of our Teams today.

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## Bay de Noc Community College

In the spring of 2012 the Water Resource Management (WRM) department at Bay de Noc Community College (Bay College) in Escanaba came to the Computer Network Systems and Networking department with a problem. Water Resource Management was facing upcoming deadlines from both the State and Federal governments requiring the use of GIS systems (asset management in 2015) and a fully GIS modeled environment (modeling in 2018). Meeting these requirements were significantly hampered by the fact that neither of the Water Resource Management faculty had GIS backgrounds!

Upon listening to the problem Karl Linderoth, Computer Network Systems instructor, took on the challenge of



developing a GIS course and later degree at Bay College. Linderoth has extensive background in map and compass orienteering, map making, and a profound interest in outdoor activities (quite possibly due to being a 'cubicle-bound computer geek' for the last 20 years!). After earning a professional post graduate certificate in Geographic Information Systems from George Mason University in Virginia, he convened a group of GIS professionals from forestry, transportation, public utilities, and regional planning to

provide guidance as he set about writing the new GIS curriculum.

The first GIS class at Bay College was offered in Fall 2013 and though its focus is on ESRI ArcGIS desktop it also requires the student to perform multiple labs using both Open Source (including QGIS) and Online applications. Linderoth managed an IT company and served as Director of Management Information Systems at a regional governmental agency in the past and those experiences taught him that the most valuable employees are those that are able to get the job done with either "off the shelf" or "do it yourself" applications and skills. Consequently, students who graduate from the Bay College GIS degree will have both skillsets.

Linderoth has participated in a dozen GIS training and conferences throughout Michigan and Ohio since 2013, including the 2014 IMAGIN and 2015

*(Continued on page 2)*



**Students learning to collect data on GPS units**

## Bay de Noc Community College



**Unmanned Aerial Vehicles (Drone) demonstration for students**

*It is always the mark of a quality curriculum when a university will accept the transfer of community college courses into their programs.*

IMAGIN conferences and Python training. He has also worked seasonally during summer months to further his skills as a GIS Mapping Technician. Further, he has attended both UP GIS User groups and Water Utility Association user groups, all of which have provided him valuable advice and direction in the development of new courses and the two year degree.

The GIS program has now grown to include 6 GIS classes and a 2 year degree in Geographic Information Systems. The Introduction to Geographic Information Systems course is a requirement for the WRM degree program. This fall topics included guest lecture and demonstrations of the City of Escanaba GIS web portal and how geospatial technologies control emerging technologies like Unmanned Aerial Vehicles (drones).

Currently, seven students are pursuing a GIS 2 year degree. Linderoth anticipates increasing numbers of students as he promotes the degree program to area high school math and science instructors. He hopes to triple enrollment for the fall.

It is always the mark of a quality curriculum when a university will accept the transfer of community college courses into their programs. Just recently, Bay College and Northern Michigan University agreed on a transfer guide that makes transferring from the Bay College GIS 2 year degree to the Northern Michigan University Geomatics 4 year degree very straightforward. GIS students can now complete the two year degree along with 5 additional classes, then transfer all credits to NMU and walk onto the NMU campus as a junior in the Geomatics 4 year program.

This is a huge win for students in reduced tuition costs, and an even bigger win for parents as it significantly reduces room and board for their students in the first two years.

“Sic Parvis Magna” (From small beginnings great things shall come) is the unofficial motto of the GIS program at Bay College. Hard work and perseverance continue to pay off for the program and it should ‘payoff’ for our GIS graduates heading into a GIS career as well! For more information please contact Karl Linderoth at 906-217-4056 or [linderok@baycollege.edu](mailto:linderok@baycollege.edu).

GIS classes developed for the 2 year degree at Bay College include:

- GIS 201 Introduction to Geographic Information Systems
- GIS 202 GIS Data Management
- GIS 203 Spatial Analysis
- GIS 204 Advanced Cartography
- GIS 205 Remote Sensing
- GIS 272 Co-op\Internship



Work Experience

*If you are interested in submitting an article for a future issue of the IMAGINews please contact the IMAGIN Communications Team via email at [communication@imagin.org](mailto:communication@imagin.org).*

# IMAGIN 2016 Annual Conference Wrap-up



The 25th Annual IMAGIN Conference was a great success again this year in Traverse City. Attendance numbers were up for a second year in a row, topping 160, making this our best attended conference in recent years! Our Monday keynote, led by Great Lakes shipwreck expert Craig Rich, captivated the audience with stories and photos of “Shipwrecks of the Sunset Coast”. Tuesday’s keynote was a historical journey, that took the audience through the evolution of IMAGIN. Dave Frey, Dr. David Lusch, and Brian Buckley took a retrospective look back at the early days of IMAGIN which was formed 25 years ago.

The social activities were once again epic for 2016. A full 56 seat charter bus took attendees on a wine and beer trip followed by dinner to kick off the conference on Sunday evening and our hospitality suite was truly ‘at capacity’ later in the evening! The euchre tournament was a full house, and the weather cleared up for a wonderful bonfire on Monday evening. Attendees were even entertained by the one-man band ‘Stovepipe Stover’ under the Up North stars!

Our 2016 technical session agenda was bursting with information and knowledge sharing this year. 40+ sessions were offered throughout the two-day conference with topics ranging from UAVs to LiDAR to Web Mapping to Surveying and more! We once again offered ESRI’s

Hands-On Learning Lab to attendees. With 22 lessons available, the lab was very well attended on both Monday and Tuesday. The silent auction continued its great success in 2016. The event raised approximately \$1,200 this year, which goes to support IMAGIN’s scholarship fund.

IMAGIN continues to have great support from our sponsors and vendors. Without their generosity, our annual conference wouldn’t be possible. See all of our sponsors listed below and to the right.

Closing on Monday of the conference, the IMAGIN Board of Directors election resulted in the re-election of seven incumbent directors and the election of one new director. IMAGIN congratulates Jonathon Merrick from Eaton County on his election to the IMAGIN Board of Directors as well as the re-election of Pete Schneider, Sarah Merz, Brodey Hill, Andrew Giguere, Bill Rowe, Diane O’Connell, and Scott Swan. IMAGIN also thanks Andrew Brenner for his many years of dedicated service to the IMAGIN Board of Directors. Andrew has committed to staying involved with IMAGIN by continuing to contribute to conference planning and other aspects of IMAGIN.

The IMAGIN Board would like to thank all of the attendees, members, sponsors and vendors that came together in 2016 for our 25th annual conference.

#IMAGIN2017 planning has already begun! We will once again be ‘Up North’ and returning to Traverse City! This time we will be located at the historic Park Place Hotel June 4-6, 2017

**Conference Sponsors:**



**Gold Sponsors:**



**Silver Sponsors:**



A huge  
THANK YOU!  
to the entire Conference  
Team and our Volunteers  
for a job well done

Team Leads

Chad Collins  
Brodey Hill

Team Members

Andrew Brenner  
Pete Schneider  
Scott Ambs  
Diane O'Connell  
Caryn Ashbay  
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Bill Rowe  
Scott Swan  
Lori Schultz  
Keri Blough  
Cindy Vannoy  
Maryellen Jansen

An additional



THANK YOU!  
to our management  
team:  
Traci Riehl  
Maryellen Jansen  
Lauri Brantley  
for making sure  
everything ran smoothly

## IMAGIN 2016 Annual Conference Award Winners

Each year IMAGIN recognizes the achievement of geospatial professionals by hosting the Annual Awards Luncheon as part of the Annual Conference. This year, as part of the 25th Annual IMAGIN Conference, awards were presented in several categories; Map Gallery, the IMAGIN Scholarship, GIS for Everyone, GIS Innovation, Volunteer of the Year, and the IMAGIN Geospatial Achievement. For 2016, the awards were presented to the following:

### IMAGIN Scholarship

The IMAGIN Scholarship is awarded in recognition of outstanding student scholarship in Geographic Information/Geospatial Sciences. The \$500 scholarship is awarded based on academic achievements in the field of Geographic Information Systems and/or Geospatial Sciences. Any student enrolled in a Michigan College or University, graduate or undergraduate is eligible for the award.

The 2016 IMAGIN Scholarship



winner is:

Aryn Cowley from Ferris State University's Surveying Engineering Program

### Volunteer of the Year

The IMAGIN Board of Directors each year selects an outstanding volunteer that has dedicated hours of work and has gone above and beyond the call of duty as a member of IMAGIN.

The 2016 IMAGIN Volunteer of the Year is Nan Ewald from the State of Michigan CSSTP. Nan is being recognized for her countless hours of behind the scenes help with the SPPC Competition.



### GIS for Everyone

The GIS for Everyone Award is presented to an organization that seeks to make GIS data or analysis accessible to other organizations and/or to the public. GIS organizations that strive to disseminate and share data, making spatial data available to everyone.

The 2016 winner of the IMAGIN GIS for Everyone Award is the University of

Michigan – Dearborn for their tireless efforts of promoting GIS through the GIS Day Programs. We would like to congratulate Dr. Claudia Walters, GAM Lab Manager and Assistant Research Scientist for winning this award.



### GIS Innovation Award

The GIS Innovation Award will be presented to an organization that finds innovative ways to use geospatial solutions to enhance workflow processes. Candidates for this award should have successfully implemented a geospatial technology, service, or application that is new and innovative to their organization. Applicants are judged on collaborative efforts, contribution to the workflow, and original ideas.

(continued on page 6)



# IMAGIN 2016 Annual Conference in Pictures



Winery Views



Sunday Dinner at Firefly



Cake!



Drones!



General Session



Monday Night Social around the Fire pit



Jonathon Merrick - winner of the drone give-away and newly elected Board Member!



Nick Nolte's Winning Map

Dave Frey accepting his award



## IMAGIN 2016 Annual Conference Award Winners

For 2016, the IMAGIN GIS Innovation Award was presented to Ryan McNeil of the Michigan Land Bank Fast Track Authority. The Authority has leveraged georeferenced video capture and GIS solutions to assist in the fight against blight across the State of Michigan.

### IMAGIN Geospatial Achievement Award

The IMAGIN Geospatial Achievement Award honors an IMAGIN member in recognition of their dedication and commitment to the IMAGIN organization, its geospatial professionals, colleagues, members and the public that it serves.

The 2016 winner of IMAGIN's highest award is Dave Frey. From the early days of GIS, Dave tirelessly strived to promote GIS and data sharing. Dave was part of the team that originally founded IMAGIN and he was the Annual Conference planner for at least the first 10 years of IMAGIN. Dave served on the board for many years, including service as the secretary and

treasurer, and he served as the contributing editor of the IMAGINews for several years.

IMAGIN congratulates Dave Frey on his tremendous career serving the geospatial technology fields and for his lifelong commitment to IMAGIN.

**Map Gallery: Peoples Choice** - Nick Nolte, Jackson County; 6 Years of Storm Chasing: Adventures of Nick Nolte from 2010 to 2015 (Picture Left)

**Judge's Choice** - Job Accessibility in Southeast Michigan; Sirisha Uppalapati and Delores Lee Muller

**Judges Honorable Mention for the Stories they Tell** - Nick Nolte, Jackson County; 6 Years of Storm Chasing: Adventures of Nick Nolte from 2010 to 2015

Jamie Way, WMSRDC; The Bridges of Mason County: Structural Ratings and Information

To view all of the winning posters or other conference highlights visit our website at [www.imagin.org/conference](http://www.imagin.org/conference).



## Upcoming Events

- August 4, 2016— Statewide GIS Users Group Meeting at MSU
- August 12, 2016— IMAGIN Board of Directors Meeting (teleconference)
- September 7-9, 2016— MiCAMP Annual Conference
- September 13-14— National Geospatial Preparedness Summit 2016 in Washington DC
- September 16, 2016— IMAGIN Board of Directors Meeting (teleconference)
- October 14, 2016— IMAGIN Board of Directors Meeting (Face-to-face, location TBD)
- October 24-28, 2016— NSGIC 2016 Annual Conference in Indianapolis, IN
- November 16, 2016— GIS Day!
- November 18, 2016— IMAGIN Board of Directors Meeting (teleconference)
- December 9, 2016— IMAGIN Board of Directors Meeting (teleconference)
- January 13, 2017— IMAGIN Board of Directors Meeting (teleconference)

*Have an upcoming GIS related event you want to advertise? Send the date, time, and place to [communication@imagin.org](mailto:communication@imagin.org)*

## Thoughts from a 2016 ESRI Conference Attendee by Shane Pavlak

The last time I attended the Esri User Conference was in 2002. ArcView 8.3, ArcIMS 4, and ArcReader were the latest and greatest Kool-Aid brands being served up from Esri (ESRI was all capital letters back then, and it was pronounced E-S-R-I). Being able to create a topology inside a geodatabase was a big highlight of the conference. Let's just say the Kool-Aid is much sweeter these days and being served up in more mobile and web-based flavors.

The nearly 16,000 people in attendance at the plenary session were given an astonishing look at how Esri and its user base are helping with "Enabling a Smarter World" (check out the videos: <http://video.esri.com/series/265/2016-esri-user-conference-plenary>). Jack Dangermond and others demonstrated how our work as GIS professionals is essential to engaging our communities in making smarter decisions. ArcGIS' Web GIS platform provides for a complete system of record, engagement, and insight. That platform consists of a symphony of apps intended for use in the field, in the office, and by the community at large. Check out the cool poster here: <https://blogs.esri.com/esri/esri-insider/files/2016/06/UC-poster1.jpg>.

The release of ArcGIS Pro 1.3 was announced, and with it comes a number of features meant to enhance our ability to do analysis, publish maps, and create 3D scenes. The best part of this latest version is that it will finally be able to make use of 64-bit processing. Start using ArcGIS Pro, it is the future of desktop GIS as there will be very little development going forward for ArcMap. See what's new in ArcGIS Pro 1.3 here: <https://pro.arcgis.com/en/pro-app/get-started/whats-new-in-arcgis-pro-1-3.htm>.

ArcGIS Online and Portal for ArcGIS Server are the platforms for hosting and consuming data, maps, and applications. Both provide everything you need to make your organization web-enabled, but depending on your organization's needs and requirements one solution may be more beneficial. You may find you choose one over the other or you may try a hybrid solution. Learn more about Portal for ArcGIS here: <http://www.esri.com/software/arcgis/arcgisserver/extensions/portal-for-arcgis>, and ArcGIS Online here: <http://www.arcgis.com/features/index.html>.

WebApp Builder for ArcGIS is meant to give us an easy way to engage our communities through apps that work on any device and work without having to learn any code. Esri provides a number of templates you can use, but you can also customize these to suit your own needs. Find out more on WebApp Builder for ArcGIS here: <http://www.esri.com/software/web-appbuilder>.

Esri announced a new training site, and even better is that everything will be free for anyone with a current maintenance subscription. Check it out here: <http://go.esri.com/esritraining>.

The conference offered up a mind-numbing amount of speaker sessions, technical workshops, and vendor exhibits. Unfortunately, there was no way to make it to them all, but thankfully Esri offers a way to experience them all via a paid streaming service which can be found here: <https://www.esrionline.com/>. Special bonus if you buy it, you will find the presentation I did on building smarter communities. The focus of my presentation was on the cemetery application Ottawa County created for local units to use.

The conference also provided the opportunity to network and socialize with other GIS professionals. I personally attended a meetup of fellow GIS users from Michigan, organized by IMAGIN's Brodey Hill, at Joe's Crab Shack along the waterfront. I had a great time listening to what others are doing and sharing what we are doing at Ottawa County.

The highlight of the conference was running into Jack and Laura Dangermond (co-founders of Esri) at the party hosted at Balboa Park. Thanks to the boldness of my friend and fellow GIS professional, Tara Russell-Weir (City of Troy), we came away with a nice photo of the four of us. I would have loved to have engaged in a conversation on credits and ELA's but didn't want to ruin the moment.

All in all, the conference was a great learning experience, and my belly came back full of Kool-Aid which will hopefully help propel me and my team in making Ottawa County an even smarter GIS-enabled community. Check out our current applications at [gis.miottawa.org](http://gis.miottawa.org).

## Vendor Advertising Opportunity

Would you like to advertise your business or agency in our newsletter? IMAGIN will continue publishing their printed newsletter (IMAGINews) on a quarterly basis. Take advantage of the opportunity to reach all of its members for a minimal fee. Right now you can get a business card-sized ad for \$75 per issue or \$200 for 4 issues. If you purchase 4 issues worth of ads

at one time you will also be eligible for a half page Vendor Spotlight article (on a first-come, first-served rotation), where you can highlight anything related to your business.

To purchase an ad or for more information please contact the IMAGIN Communication Team at [communication@imagine.org](mailto:communication@imagine.org)



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**IMAGIN is a non-profit professional development organization committed to providing opportunities for its members to network with professionals who are using, creating, or maintaining spatial resources within Michigan. IMAGIN serves as a crossroads for spatial information users/developers at all levels of government, business, and non-profit organizations by providing its members partnership opportunities to recognize, share, and create spatial data resources for both traditional and new applications.**

IMAGINews publishes original, timely, and innovative articles and news items that advance knowledge regarding GIS, related technologies, and their use within Michigan. IMAGINews welcomes submissions from IMAGIN members and others. Please send article submissions in Microsoft Word format to [communication@imagin.org](mailto:communication@imagin.org).

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