28th Annual

SCAUG

Conference
San Antonio
April 9 - 13, 2018

Menger Hotel

The Menger Hotel 1st Floor - San Antonio, TX

The Alamo

Crockett St

N

Alamo Plaza

Haagen-Dazs Shop

Alamo Visitor's Center

Menger Bar

Vehicle Entrance / Valet Parking

IMAX Theatre

San Antonio Gifts

Hotel Entrance

Cavalier Room

Patio Room

Fitness

Pool

Hotel Entrance

Registration Desk
Wed-Thurs

Hotel Entrance

A

Exhibit Hall

B

Ballroom

C

Ballroom Terrace

Morton's Restaurant

Silver Spur

Registration Desk
Mon-Tues

Tropical Garden

Poolside

1
2
3

River Center Entry

World of Wonders

King's-X

Minuet Room

Whirlpool Tub

Kampman Room 3rd Floor
Renaissance Room 2nd Floor

Hotel Entrance

Aldeman

The Humididor

Colonial Dining Room

Hotel Entrance

Blum Street Arcade & Shops

River Center Entry

River Center

Dillard's Department Store

SCAUG Conference Rooms

CONFERENCE GUIDE QRCODE

CONFERENCE PORTAL QRCODE

TABLE OF CONTENTS

SCAUG OFFICERS

President: Charles Brady III, GISP
City of Ardmore, Oklahoma

Vice President: Shellie Willoughby, GISP
Oklahoma Office of Geographic Information, Oklahoma City, Oklahoma

Treasurer: James Allen
Carter County, Ardmore, Oklahoma

Secretary: Anne Mackey, GISP
Tarrant County Transportation, Fort Worth, Texas

Conference Coordinator: Lydia Sauceda, GISP
Happy Fulfilled Retiree, San Antonio, Texas

Conference Coordinator Elect: J. Scott Sires,
Brookhaven College, Dallas, Texas

North Texas Representative: Amy Rose
City of Dallas, Texas

South Texas Representative: Leslie Morgan, Ph.D.
GISNuts, San Antonio, Texas

Louisiana Representative: John W. McEwen, Ph.D. GISP
APTIM, Baton Rouge, Louisiana

Mississippi Representative: Scott Trapolino, GISP
Everything is Somewhere, LLC, Lake Cormorant, Mississippi

Oklahoma Representative: Will Gustafson, GISP
Meshek & Associates, LLC, Tulsa, Oklahoma

Esri Representative: Katherine Smyth
Esri, San Antonio, Texas

2

PRESIDENTIAL WELCOME

I would like to personally welcome each of you to the 28th Annual Regional SCAUG Conference held at the Historic Menger Hotel in San Antonio, Texas. We know you could be countless other places right now so we are thankful you chose to spend your valuable time with us. Every effort was made this year to locate your SCAUG Conference as close as possible to as much as possible. Location, Location, Location! We all know it and live it. It's what we do. You honestly can't get much closer to the heart of San Antonio than you are right now. You are standing in the middle of 300 years of San Antonio's diverse history as it celebrates its Tricentennial. From The Alamo to the River Walk and all that lies around the surrounding area, I hope you have a wonderful experience in this historically rich area. Take time this week to see the sights and enjoy all that we have in store for you.

Each year SCAUG strives to give you the best conference possible and I hope this year we exceed all your expectations in providing you relevant content, ample time, and in depth exposure to resources you can use on your job back home. Our professional goal during this conference is to spark an interest in you to have new ideas and enough educational resources throughout the week to be successful with those new ideas. I hope you brought your best questions & I furthermore hope we brought our best answers.

It is a continual challenge to accurately provide current conference content to the growing diverse group of conference attendees we always enjoy. The vast array of skill sets that our attendees bring to a conference, as well as the rich content they impart truly enrich our conference beyond what we, as a board, can provide the average attendee. Our attendees make the conference a success. SCAUG has and will always be about the people. Whether you choose to get in the weeds of GIS or you would rather step back and analyze the forest as a whole during our time together, we hope that you find your conference you are looking for. The cliché that has been utilized throughout our GIS profession over the years of "Quality In – Quality Out" accurately applies to each of our conference experiences. While SCAUG and all the presentations at the conference focus on laying before you a content rich conference, ultimately it is up to you to glean the relevant content you need from our offerings. I ask you to genuinely become involved, meet new people, ask questions, and be ready to provide your input throughout the entire conference. Be the person throughout this conference you would like to meet because, for someone, you most likely are that person. You hold the answers to their questions as well as them likely being able to teach you a thing or two.

This conference is truly what you make of it.

Charles Brady III,
SCAUG President

HOLA FROM TUG

Can you possibly think of anything more fitting for this "Little Arcadillo" than having the 2018 SCAUG conference right next door to The Alamo? The Alamo is so close that even my short little legs can make the walk over to it. (I'm not overly fond of curbs however. Not wanting to stay on the pavement any longer than absolutely necessary if you know what I mean.) I always am at home in San Antonio & would like to personally welcome you to this neat part of my home. There is so much to see and do I can't keep track of it all without the new SCAUG Conference Portal! The Portal brings San Antonio's neat sights and activities to your fingertips. I know sometimes it's a little overwhelming coming to a new city with new people but this should help you not miss a thing. It has all the SCAUG events listed and is your go to place outside the normal conference hours. If you want Conference content & agendas stick with this guide but for after hours go check out the new Conference Portal. From what I am hearing there will be lots of SCAUG stuff to do outside the conference so get out there and say hello to some old friends and meet a few new ones. It is such a shame that several of us haven't seen each other since last year in Baton Rouge, LA eating crawfish but hey, that just gives us more catching up to do!

I know that you want to see ALL of San Antonio you can while you are here but don't forget you came here for the 2018 SCAUG Conference. I have been listening to the SCAUG Board work really hard this past year to bring you a solid conference and I'm counting on you to be the best part of it. You know it is neat to hear all that GIS can now do and what it is involved in. I would have never dreamed back in the days of command line, selective availability GPS, and DISPLAY 9999 that my go to line now is "Wait, I think there's an app for that". The SCAUG Board has so many options with new stuff for you to build your conference from that if you leave here bored... Well, I don't know how you could do such a thing. From the ESRI training and tech sessions, User presentations, Hands-On Learning Lab (HOLL, and yes we gave you another acronym), and most importantly my favorite, peer collaboration time you shouldn't have a free minute during the conference. Except bathroom breaks, we gotta keep those...

I hope that you have a good time here and leave feeing excited about your really cool profession. Don't ever forget that GIS always has the neat WOW factor that grabs people's attention and you get to be the one that represents our awesome profession back home. GIS makes more than pretty maps but who's to say good maps can't be pretty too. Now if I could just get a large format plotter app to fit in my phone & print E size out the back of my phone I'd be set. Until then I guess I'll just have to make due. Learn something new, have fun & make certain to stay safe this week. I sure am happy you are with us because without you this TUG wouldn't have as happy a mug.

TUG

TRAINING CLASSES & WORKSHOPS

MONDAY, APRIL 9TH		
TIME	EVENT	PLACE
7:30AM TO 8:30AM	Registration	MAIN LOBBY
8:00AM TO 5:00PM	ArcGIS Enterprise: Configuring a Base Deployment	CAVALIER
8:00AM TO 5:00PM	Migration from ArcMap to ArcGIS Pro	RENAISSANCE
8:00AM TO 5:00PM	Unmanned Aircraft Systems (UAS)	PATIO
8:00AM TO 5:00PM	Labels and Annotation Mangement in ArcMap	KAMPMAN
8:00AM TO 5:00PM	Getting Started with ArcGIS Arcade	MINUET
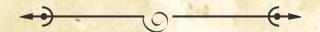
TUESDAY, APRIL 10TH		
TIME	EVENT	PLACE
7:30AM TO 8:30AM	Registration	MAIN LOBBY
8:00AM TO 5:00PM	ArcGIS Enterprise: Configuring a Base Deployment	CAVALIER
8:00AM TO 5:00PM	Migration from ArcMap to ArcGIS Pro	RENAISSANCE
8:00AM TO 5:00PM	Unmanned Aircraft Systems (UAS)	PATIO
8:00AM TO 5:00PM	Data QC and Cleanup	MINUET
6:00PM TO 7:00PM	Registration	THE ALAMO PATIO
6:00PM TO 9:00PM	SCAUG Meet & Greet	THE ALAMO PATIO

FRIDAY, APRIL 13TH		
TIME	EVENT	PLACE
8:00AM TO 12:00PM	ArcGIS Pro Tips and Tricks	RENAISSANCE
8:00AM TO 5:00PM	Python Primer - Tailored to Non-Programmers	KAMPMAN
9:00AM TO 12:00PM	RGVAUG Subchapter Meeting	PATIO
9:00AM TO 12:00PM	Alamo Area GIS User Group Subchapter Meeting	MINUET
12:00PM TO 1:00PM	Lunch on Your Own	
1:00PM TO 5:00PM	ArcGIS Online: From Maps to Apps	RENAISSANCE

OPENING SESSION AGENDA

Wednesday, April 11th,

Ballroom

Breakfast: 7:30 am – 9:00 am

Business Meeting: 9:00 am

- Welcome

- Conference Committee Introduction

- Conference Agenda

- Contributor Recognitions

- Founders & Thumbs Up Award Winners

- Regional Scholarship Winners

- 2018 SCAUG Officers

- Close of Breakfast Meeting

- Break

- Plenary Speaker

Adjourn: 11:30am

CONTRIBUTORS RECOGITION

THANK YOU to the following organizations for their generous donations & Support

TeachMeGIS.COM
Thank You for Providing Training Laptops

Brookhaven College GIS Students

Thank You for Creating web app content for the Conference Portal

San Antonio Convention & Visitors Bureau
Thank You for Providing Conference Bags

AWARD & SCHOLARSHIP WINNERS

Founder's Award
911 Program
Director Manuel Cruz
Lower Rio Grande Valley
Development Council

Thumbs Up Award
David Allen
Texas Emergency GIS
Response Team

SCAUG $1500 Regional Scholarship
Graduate — Ashley Ciarlante
University of Oklahoma

SCAUG $1500 Regional Scholarship
Under Graduate — Jesus
Gabriel Velasquez
Texas A&M

PLENARY SPEAKER

The Underutilization of GIS and How To Cure It,

Adam Carnow

esri® | THE SCIENCE OF WHERE™

When most non-GIS professionals hear "G-I-S", they think "M-A-P". Now that GIS is a location intelligence platform, the underutilization of it is critical and career-limiting for GIS professionals. GIS is designed to do more than make maps. It is vitally important that organizations proactively evangelize and market all of the GIS capabilities. This presentation will provide strategies on how to spread the understanding and full value of GIS across your organization.

Adam Carnow is a thought leader and technology evangelist helping organizations get the most out of their GIS investment and make a difference in their communities. He motivates customers to maximize their return on investment in the ArcGIS location platform. He works closely with the Esri teams and Partners to assure customer success. He helps these organizations use the ArcGIS platform to transform from mapmakers into solution providers, through the application of location intelligence, to deliver spatial insight. He strives to assist customers in creating and reaching their vision, and gaining professional recognition for their efforts, like awards, presentations, articles and videos.

Mr. Carnow has over 25 years of experience as a GIS practitioner in the public and private sectors, as well as academia. He holds a BA in Geography and a MA in Urban and Regional Planning from the University of Florida and has achieved certification as an Urban Planner (AICP) and GIS Professional (GISP).

EXHIBITOR EVENT SPONSORSHIPS

Opening Breakfast — Platinum

are now

Exhibitor Reception — Gold

Coffee Breaks — Silver

SAVE THE DATE

**Louisiana Remote Sensing & GIS Workshop
Covington, Louisiana
May 8 – 9, 2018**

**Esri International User
Conference
San Diego, California
July 9 -13, 2018**

**Esri UC SCAUG Mixer
July 10, 2018**

**OKSCAUG Conference
Moore Norman Technology
Center
Oklahoma City, Oklahoma
September 24 - 27, 2018**

**Mississippi Geospatial Conference
Univ. of Southern Mississippi
October 19 – 20, 2018**

**Texas GIS Forum
Austin, Texas
October 22 – 26, 2018**

**29ᵗʰ Annual SCAUG
Conference
Tulsa, Oklahoma
April 22 – 26, 2019**

11

SOCIAL EVENTS

Tuesday, April 10th
SCAUG Meet & Greet
6 – 9 PM
The Alamo
Eat, drink, and chat with friends on the patio of the historic Alamo. A great time to catch up with the old and meet the new. Each attendee receives 2 drink tickets at registration. The tickets can be used at the Meet & Greet or at the Exhibitor Reception.

Wednesday, April 11th
Exhibitor Social
5 – 7 PM
Exhibitor Hall
The official opening of the Exhibitor Hall welcomes everyone to meet exhibitors in a fun social atmosphere. Hear about their solutions and acquire those exhibitor door prize tickets. And of course pick up your conference pint glass.

Wednesday, April 11th
Esri After Hours
With URISA
7 – 9 PM
Rosella On The Rand

Thursday, April 12th
New Edge Social
6 – 8 PM
Cafe Ole on the Riverwalk

At Esri®, we do more than talk about smart communities. We help create them.

For decades, we have partnered with thousands of governments of all sizes, all around the world. Through these partnerships we built ArcGIS® for State Government and ArcGIS for Local Government—a series of application templates to help you overcome real-world challenges related to the economy, health, infrastructure, and public safety. You can download these apps and start creating your smart community today. Smart communities start here.

Learn more at
esri.com/smartcommunities.

esri® | THE SCIENCE OF WHERE™

GENERAL SCHEDULE WEDNESDAY, APRIL 11TH

TIME	EVENT	PLACE
7:30AM - 9:00AM	Breakfast Buffet	Ballroom
7:30AM - 5:00PM	Registration	Ballroom Foyer
9:00AM - 10:15AM	SCAUG Business	Ballroom
10:15AM - 10:30AM	Intermission	Ballroom
10:30AM - 11:30AM	Plenary Speaker Adam Carnow	Ballroom
11:30AM - 1:00PM	Lunch on Your Own	
Noon - 5:00PM	Hands On Learning Lab (HOLL)	Renaissance
1:30PM - 2:30PM	Esri Enterprise & Tech Sessions	Minuet Patio Poolside Cavalier
2:30PM - 2:45PM	Break	
2:45PM - 3:45PM	User & Exhibitor Sessions	Minuet Patio Poolside Cavalier
3:45PM - 4:00PM	Break	
4:00PM - 5:00PM	User & Exhibitor Sessions	Minuet Patio Poolside Cavalier
2:00PM - 5:00PM	Exhibitor Set-Up	Ballroom
5:00 to 7:00PM	Exhibitor Social	Ballroom
7:00PM - 9:00PM	Esri After Hours With URISA	Rosella At The Rand 114 E. Houston

14
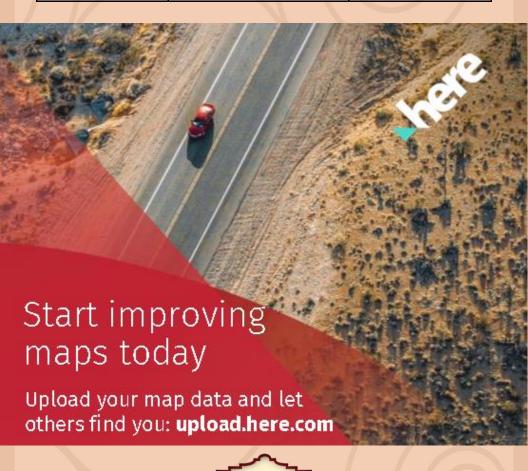
GENERAL SCHEDULE THURSDAY, APRIL 12TH

TIME	EVENT	PLACE
6:00AM - 8:00AM	Exhibitor Set-Up	Ballroom
7:30AM - 12:00PM	Registration	Ballroom Foyer
8:00AM - 9:15AM	Exhibitor Visit	Ballroom
8:00AM - 9:15AM	Continental Breakfast	Ballroom
8:00AM - 4:00PM	Map Gallery	Ballroom
8:00AM - 5:00PM	Hands-On Learning Lab (HOLL)	Renaissance
8:00AM - 6:00PM	Exhibitor Hall	Ballroom
9:15AM - 10:15AM	Esri Enterprise & Tech Sessions I	Minuet, Patio Poolside Cavalier
10:15AM - 10:30AM	Break	Change Rooms
10:30AM - 11:30AM	Esri Enterprise & Tech Sessions II	Minuet, Patio Poolside Cavalier
11:30AM - 1:00PM	Exhibitor Lunch	Ballroom
1:00PM - 2:00PM	User & Exhibitor Session Track III	Minuet, Patio Poolside Cavalier
2:00PM - 2:45PM	Exhibitor Visit	Ballroom
2:00PM - 2:45PM	GIS For Managers/Esri Presentation	Poolside Room
2:45PM - 3:00PM	Break	Ballroom
3:00PM - 4:00PM	Esri Enterprise & Tech Sessions IV	Minuet, Patio Poolside Cavalier
4:00PM - 6:00PM	Exhibitor Visit	Ballroom
4:30PM - 6:00PM	Map Gallery Awards & Exhibitor Ticket Raffle	Ballroom
6:00PM - 8:00PM	New Edge Social	Cafe Ole on the Riverwalk

15

GENERAL SCHEDULE FRIDAY, APRIL 13ᵀᴴ

TIME	EVENT	PLACE
8:00AM TO 12:00PM	ArcGIS Pro Tips and Tricks	Renaissance
8:00AM TO 5:00PM	Python Primer - Tailored to Non-Programmers	Kampman
9:00AM TO 12:00PM	Subchapter Meetings	Minuet Patio
12:00PM TO 1:00PM	Lunch on Your Own	
1:00PM TO 5:00PM	ArcGIS Online: From Maps to Apps	Renaissance

here

Start improving
maps today

Upload your map data and let
others find you: **upload.here.com**

HANDS-ON LEARNING LAB

The Hands-on Learning Lab (HOLL) is a training resource provided and developed by Esri Training Services. The Lab is an excellent way to introduce ArcGIS users to a variety of Esri software solutions and training opportunities while learning to use Esri software. The best part is that it is FREE with conference registration!!!

Sign up for lessons during HOLL hours of Noon to 5:00pm on Wednesday, April 11th and 8:00am to 5:00pm on Thursday, April 12th

The HOLL consists of a group of laptops, with headphones, where students can work through lessons at their own pace. A lesson consists of a recorded presentation followed by a hands-on exercise. Each lesson typically takes 45 to 60 minutes to complete. Students can generally come and go as they please. An Education Services instructor will be on hand to assist users with questions.

These lesson choices are updated matching the Esri software release schedule in order to provide up-to-date content:

Getting Started with GIS	Learning the Fundamentals of ArcMap
Getting Started with ArcGIS Pro	Storing Data in the Geodatabase
Editing GIS Data	Importing CAD Data
Spatial Reference and Data Alignment	Constructing Points from Address Data
Multi-user Editing Using Versioning	Maintaining Land Records Using Parcel Fabric
Modeling Transportation Networks	Performing Image Classification
Finding the Best Location	Using Business Analyst Web
Displaying Data in 3D	Using Tasks in ArcGIS Pro
Sharing GIS Content Using ArcGIS Online	Generating Custom Web Applications
Telling Your Story with Story Maps	Performing Analysis with Model Builder
Creating Maps for Presentation	Automating Workflows Using Python
Examining Patterns in Your Data	Getting started with ArcGIS Earth

SESSION SCHEDULE
Wednesday, April 11th

Session Track I 1:30pm - 2:30pm	Session Track II 2:45pm - 3:45pm	Session Track III 4:00pm - 5:00pm
Minuet		
ArcGIS Enterprise: An Introduction / Pam Kersh	ArcGIS Enterprise: Deployment Tips and Tricks / Gary Parker	Python for Local Government / Neil Rose & Parker Jones
	Integrating SQL Server Reporting Services with MS Azure deployed GIS / John May	
Patio Room		
Communicating the Value of GIS / Michael Beavers	Democratizing GIS in Government / Jordan Carmona	Waze Connected Citizens Program / Jordan Carmona
Cavalier Room		
ArcGIS GeoEvent Server: Real-Time GIS / Brig Bowles	Getting What You Want Out Of SCAUG / SCAUG Officers	Techniques for Effective Street Centerline Mapping / Jeff Barnett
	Gauging Citizen Sentiment with Crowdsource Polling / Shari Forbes	
Poolside Room		
ArcGIS Pro: 3D Workflows / Zena Pelletier	Crash Analysis Using 3-D Visualization in GIS / Lauren Rogers & Daniel Chantlos	3D Elevation Program (3DEP): Status and Updates / Claire DeVaughan
	2D and 3D Edwards Aquifer Structural Visualization Using ArcGIS / Ned Troshanov & Sarah Eason	Improving Locates Workflows / Toni Jackson

18

ESRI TECHNICAL SESSION ABSTRACTS
WEDNESDAY, APRIL 11TH

Session Track I — 1:30pm to 2:30pm

Minuet Room

ArcGIS Enterprise: An Introduction

Pam Kersh

ArcGIS Enterprise is the next evolution of the server product line. It includes all the components that you're familiar with: ArcGIS (Portal and Server), and more. Join us in this workshop to get an introduction to ArcGIS Enterprise and the many capabilities that have been introduced, such as portal collaboration, Insights for ArcGIS, ArcGIS Image Server, ArcGIS GeoEvent Server and ArcGIS GeoAnalytics Server.

Patio Room

Communicating the Value of GIS

Michael Beavers

Interpreting Executive Motivation and Demand - It is not often that business leaders speak in the language of GIS any more than it is often that they use the language of IT or data analysis more generically. It is often the challenge of a GIS leader to interpret business leader's challenges and requests (verbalized and non-verbalized), deriving the GIS needs along the way. The key to success is understanding the relationship between organizational drivers, goals, and services and the solutions your team can offer.

Determining the Business Value of GIS - Determining the business value of your organization's location platform, apps, and services can be one of the most challenging endeavors that GIS leaders undertake. It can be difficult to avoid contemplating the specific contributions of a given element of the platform's underlying infrastructure or specific data management efforts. The trick is to rise above the level of the constituent parts and focus on the business capabilities, products, and services enabled or enhanced through GIS.

ESRI TECHNICAL SESSION ABSTRACTS
WEDNESDAY, APRIL 11TH

Session Track I — 1:30pm to 2:30pm

Knowing the Story - Stories can be memorable and impactful ways to communicate the value of GIS. Knowing the stories that drive the businesses that you enable and advance through your team's services can empower you to make the best business case for investments in the growth and sustainment of your organization's location platform, maps, apps, and services.

Cavalier Room

ArcGIS GeoEvent Server: Real-Time GIS

Brig Bowles

ArcGIS GeoEvent Server extends the ArcGIS Platform to connect with and analyze virtually any type of streaming real-time data. Real-time observational data can come from moving objects, changing attributes of stationary sensors, or both. Learn about the advantages of using stream services for real-time data, options for real-time outputs, and new tools for analyzing the large volumes of data created from archiving real-time data streams along with how to publish, configure, and incorporate the data into web based applications.

Poolside Room

ArcGIS Pro: 3D Workflows

Zena Pelletier

Working in 3D in ArcGIS Pro is in many ways just like working in 2D. However there are some things that you need to know to be successful doing 3D GIS with ArcGIS Pro. This session is for those that are familiar with ArcGIS Pro and are looking to get up to speed with workflows for 3D data management, visualization, analysis, publishing, and even some 3D editing. Sprinkled throughout will be tips and tricks to make you into the 3D superstar in your office.

USER SESSION ABSTRACTS
WEDNESDAY, APRIL 11TH

Session Track II — 2:45pm to 3:45pm

Minuet Room — Two 30 minute presentations

ArcGIS Enterprise: Deployment Tips and Tricks

Gary Parker

At 10.5.1 ESRI introduced ArcGIS Enterprise, combining Portal for ArcGIS, Server for ArcGIS, SDE, ArcGIS Datastore and ArcGIS WebAdaptor. This presentation explores the different components of ArcGIS Enterprise and how they work together, including ArcGIS Online. ESRI Best practices will be highlighted throughout the presentation which aims to outline tips and tricks for your journey into Enterprise from design to implementation.

Integrating SQL Server Reporting Services with MS Azure deployed GIS

John May

Web based deployments of GIS data means organizations no longer need to deploy desktop applications to support their users. While web based GIS data viewers are much easier to use they suffer from having even less reporting capability than their desktop cousins. This gap can be easily filled using Sql Server Reporting Services (SSRS). SSRS provides the ability to create, deploy and manage traditional paginated reports as well as Mobile reports which are device aware. With SSRS you can create parameterized reports that incorporate sub-reports, charts, Tablix objects, and more. Reports can be leveraged for all your spatial and non-spatial data stores and are deployed through a web portal and can be viewed in any modern web browser. With SSRS any GIS data viewer can have a powerful reporting tool to accompany it.

Session Track II — 2:45pm to 3:45pm

Patio Room — One 60 minute presentation

Democratizing GIS in Government

Jordan Carmona

The resources and budgets of local government are somewhat constrained when compared to for-profit companies engaging in GIS activities; however, increasing the goods and services provided by your team does not necessarily require additional GIS staff. This presentation is geared towards small and medium-sized GIS shops working for municipal, county, and regional entities. Discussion focuses on several strategies to engage traditionally non-GIS members of your organization to perform GIS-centric tasks. The session covers in detail: how to approach needs-analysis discussions / presentations, implementing data collection, field verification, and attribute updates with members already on your organization's payroll. These no-nonsense solutions were implemented within the City of McKinney and range the technology spectrum from pen-and-paper, Microsoft Excel / Google Sheets, to Commercial off-the-shelf (COTS) ArcGIS Online applications.

Cavalier Room — Two 30 minute presentations

Getting What You Want Out Of SCAUG

SCAUG Officers

Ever wonder about SCAUG? What questions might you have? What is SCAUG and What is available to a member? Or, are you curious about supporting SCAUG? Perhaps you would like to know something about the officers or the positions they hold and how that positions serves SCAUG members. This session will afford audience feedback with the intent to point the ways to gain from, or improve, SCAUG.

Session Track II — 2:45pm to 3:45pm

Cavalier Room — 2nd Presentation of Session

Gauging Citizen Sentiment with Crowdsource Polling

Shari Forbes

The City of Plano Planning Department wanted to show transparency of citizen sentiment regarding pending Zoning Cases. The "Zoning Case Response" interactive map is the Planning Department's new crowdsourcing tool empowering citizens to share their observations tied to their location. In this presentation, you will learn about the background of the "Zoning Case Response" project, technical aspects of what is involved in configuring ESRI's Crowdsource Polling application, and our experience six months after launch.

Poolside Room — Two 30 minute presentations

Crash Analysis Using 3-D Visualization in GIS

Lauren Rogers & Daniel Chantlos

The concept of this project is to create an easily accessible web-based 3D GIS visualization of all crashes within Bexar County from 2012-2017. The 3-D visualization will aid in analysis of traffic crashes throughout the geographic area, as well as over time, enabling users and decision makers to quickly identify hotspots and trends. Identification of the most dangerous intersections in the area will allow municipalities and traffic engineers to redesign the intersections for a safer city and community. Variables that will be analyzed to determine the most hazardous areas will include: time of day, contributing factors, and crash severity.

Session Track II – 2:45pm to 3:45pm

Poolside Room – 2ND Presentation of Session

2D and 3D Edwards Aquifer Structural Visualization Using ArcGIS

Ned Troshanov & Sarah Eason

ArcGIS Desktop was used to develop an ArcGIS model of the geometric body of the Edwards Aquifer (Balcones Fault Zone), its overlying geologic overburden, underlying confining formation, and outcropped basaltic intrusions in the frame of aquifer's unconfined and confined zones. The 3D aquifer visualization of geometric bodies of interest as well as structural framework of inferred faults was achieved in ArcScene.

25

USER SESSION ABSTRACTS
WEDNESDAY, APRIL 11TH

Session Track III — 4:00pm to 5:00pm

Minuet Room — One 60 minute presentation

Python for Local Government

Neil Rose & Parker Jones

This hour-long user presentation will demonstrate the capabilities of streamlining a wide range of processes relevant to local government through Python scripting. Examples of workflows that will be examined include the street name approval process, web scraping, and map layout manipulation and exporting to PDF. Python is an ideal scripting language for automating such a wide range of processes because of the many built-in modules as well as downloadable packages that are available.

Patio Room — One 60 minute presentation

Waze Connected Citizens Program

Jordan Carmona

Community-based navigation app Waze offers a free two-way partnership with governmental and other organizations to promote the exchange of data; access to the Waze live feed is granted in exchange for advance notice of road closures and other major traffic events. This presentation is geared towards GIS shops working for municipal, county, and regional entities that are seeking to enter into the data-exchange known as the Connected Citizens Program (CCP). Discussion focuses on the path to Waze integration from background research of benefits to accepting and maintaining the legal agreement. The session unpacks the mystery from A-to-Z: putting together a presentation for executive approval, "out of the box" capabilities, and longer-term automated integration using the Waze API. Follow these turn-by-turn directions to join the cutting edge of a real-time, crowd-sourced GIS.

26

Session Track III — 4:00pm to 5:00pm

Cavalier Room — One 60 minute presentation

Techniques for Effective Street Centerline Mapping

Jeff Barnett

Street centerline features are the foundation of most local GISs because they are typically the frame of reference for all other geographic datasets and the foundation for 911 response. Maintenance of street data can be challenging for even the most patient and meticulous editor but can be even more difficult for someone new to the role. This presentation will cover some techniques that will help those responsible for street data to identify and correct problems with positional accuracy, connectivity, addresses, and other street attributes. Techniques will include: setting symbology to identify positional and attribute errors, using geoprocessing tools to discover unmatched street endpoints, modifying streets with editing tools, using queries and scripts to find attribute errors, and employing geodatabase topology for positional connectivity.

Session Track III — 4:00pm to 5:00pm

Poolside Room — Two 30 minute presentations

3D Elevation Program (3DEP): Status and Updates

Claire DeVaughan

The 3D Elevation Program (3DEP) is being developed to respond to growing needs for high-quality topographic data and for a wide range of other three-dimensional representations of the Nation's natural and constructed features. The primary goal of 3DEP is to systematically collect enhanced elevation data in the form of high-quality light detection and ranging (lidar) data over the conterminous United States, Hawaii, and the U.S. territories, by the end of 2023. Benefits of such data apply to flood risk management, agriculture, water supply, infrastructure management, and aviation safety. This presentation will provide an update on 3DEP status in the SCAUG region, the 3D Nation Study that is currently underway, the recent release of the USGS Lidar Base Specification version 1.3, and other timely topics.

Improving Locates Workflows
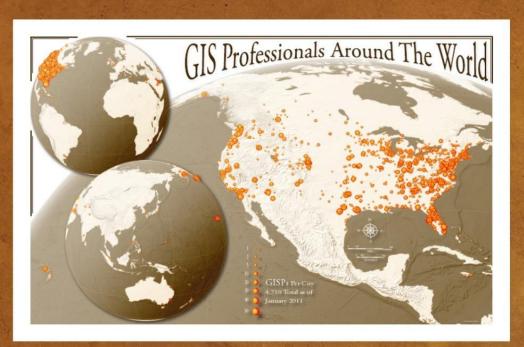
Toni Jackson

Five years ago the GIS department at the San Antonio Water System inherited the job duty of writing service requests for utility locates. A locate is a request to mark an underground main before an excavator digs. Toni Jackson, GIS Analyst and Cindy Tuttle, GIS manager developed an application for local contractors to request a locate at the site of excavation. A workflow was designed with web services in GeoCortex to allow the contractor to draw a polygon in the excavation area. Once drawn, a service request is generated. Block maps and a reference number track progress. From a spatial approach, it seemed simple. But, this had to interface with the work management software as well as a front end for the user login. Other departments had a stake in the application as well. The customers had a long list. Savings to the utility was 4 fulltime positions and self-serve customers.

SESSION SCHEDULE
Thursday Morning, April 12th

Session Track I 9:15am - 10:15am	Break	Session Track II 10:30am - 11:30am
Minuet		
ArcGIS Enterprise: An Introduction / Pam Kersh	Break	Mobile GIS Workflows using Collector, Workforce and Navigator / Brig Bowles
Patio Room		
Communicating the Value of GIS / Michael Beavers	Break	Implementing ArcGIS Solutions in your Organization / Michael Beavers
Cavalier Room		
ArcGIS GeoEvent Server: Real-Time GIS / Brig Bowles	Break	Spatial Analysis with Web GIS / Brad Owens
Poolside Room		
ArcGIS Pro: 3D Workflows / Zena Pelletier	Break	Architecting the ArcGIS Platform: Best Practices / Katherine Smyth

ESRI TECHNICAL SESSION ABSTRACTS
THURSDAY, APRIL 12TH

Session Track I — 9:15am to 10:15am

Minuet Room

ArcGIS Enterprise: An Introduction

Pam Kersh

ArcGIS Enterprise is the next evolution of the server product line. It includes all the components that you're familiar with: ArcGIS (Portal and Server), and more. Join us in this workshop to get an introduction to ArcGIS Enterprise and the many capabilities that have been introduced, such as portal collaboration, Insights for ArcGIS, ArcGIS Image Server, ArcGIS GeoEvent Server and ArcGIS GeoAnalytics Server.

Patio Room

Communicating the Value of GIS

Michael Beavers

Interpreting Executive Motivation and Demand - It is not often that business leaders speak in the language of GIS any more than it is often that they use the language of IT or data analysis more generically. It is often the challenge of a GIS leader to interpret business leader's challenges and requests (verbalized and non-verbalized), deriving the GIS needs along the way. The key to success is understanding the relationship between organizational drivers, goals, and services and the solutions your team can offer.

Determining the Business Value of GIS - Determining the business value of your organization's location platform, apps, and services can be one of the most challenging endeavors that GIS leaders undertake. It can be difficult to avoid contemplating the specific contributions of a given element of the platform's underlying infrastructure or specific data management efforts. The trick is to rise above the level of the constituent parts and focus on the business capabilities, products, and services enabled or enhanced through GIS.

ESRI TECHNICAL SESSION ABSTRACTS
THURSDAY, APRIL 12TH

Session Track 1 — 9:15am to 10:15am

Knowing the Story - Stories can be memorable and impactful ways to communicate the value of GIS. Knowing the stories that drive the businesses that you enable and advance through your team's services can empower you to make the best business case for investments in the growth and sustainment of your organization's location platform, maps, apps, and services.

Cavalier Room

ArcGIS GeoEvent Server: Real-Time GIS

Brig Bowles

ArcGIS GeoEvent Server extends the ArcGIS Platform to connect with and analyze virtually any type of streaming real-time data. Real-time observational data can come from moving objects, changing attributes of stationary sensors, or both. Learn about the advantages of using stream services for real-time data, options for real-time outputs, and new tools for analyzing the large volumes of data created from archiving real-time data streams along with how to publish, configure, and incorporate the data into web based applications.

Poolside Room

ArcGIS Pro: 3D Workflows

Zena Pelletier

Working in 3D in ArcGIS Pro is in many ways just like working in 2D. However there are some things that you need to know to be successful doing 3D GIS with ArcGIS Pro. This session is for those that are familiar with ArcGIS Pro and are looking to get up to speed with workflows for 3D data management, visualization, analysis, publishing, and even some 3D editing. Sprinkled throughout will be tips and tricks to make you into the 3D superstar in your office

ESRI TECHNICAL SESSION ABSTRACTS
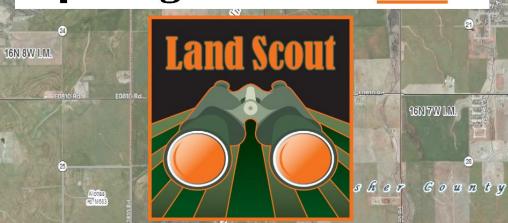## THURSDAY, APRIL 12TH

Session Track II — 10:30am to 11:30am

Minuet Room

Mobile GIS Workflows using Collector, Workforce and Navigator

Brig Bowles

ArcGIS field apps help you use the power of location to improve coordination and achieve operational efficiencies in field workforce activities. Reduce or even replace your reliance on paper. Ensure that everyone, in the field and the office, uses the same authoritative data so you can reduce errors, boost productivity, and save money. See three of these apps; Workforce, Navigator, and Collector, in a set of demonstrations and discussions to get you started.

50 Years

asi
aerial services inc.

LiDAR & Imagery Acquisition
Our LiDAR systems provid high-speed and incredibly accurate elevations on fixed-wing and helicopter aircraft over large and small areas

GIS & Web Services
We provide (GIS) solutions to our clients with cost-effective products and services that are specifically tailored to their requirements

DEM Generation, Topographic & Planimetric Mapping
State-of-the-art technology is used to develop detailed aerial surveys for the production of digital ortho, (DTM), digital planimetric, and topographic mapping services

UAS Services
Our UAS services will help us meet new demands in new markets for our clients and remain an industry leader in the geospatial community

Transportation

Utilities

Oil & Gas

Mining & Aggregate

Forestry Solutions

Resource & Land Management

Precision Farming Solutions

USGS 3DEP Multi-Year Contract
www.AerialServicesInc.com

Contact
Chuck Boyer
[e] cboyer@aerialservicesinc.com
[p] (281)733-1992

ESRI TECHNICAL SESSION ABSTRACTS
THURSDAY, APRIL 12TH

Session Track II – 10:30am to 11:30am

Patio Room
Implementing ArcGIS Solutions in your Organization
Michael Beavers

This session will describe how to deploy the ArcGIS for State and Local Government solutions and configure the maps and apps to meet specific business needs in your organization. Newly released maps and apps that help organizations tackle public health challenges, understand and communicate environmental impacts and maintain situational awareness before, and during, an incident or event will be highlighted in this session.

Cavalier Room
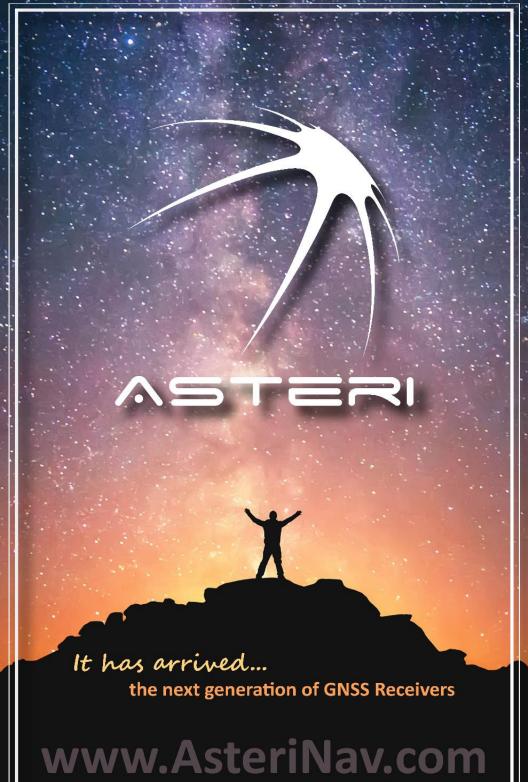### Spatial Analysis with Web GIS
Brad Owens

This session introduces the spatial analysis capabilities available in web GIS, via both ArcGIS Online and ArcGIS Enterprise. These spatial analysis tools are designed to provide an intuitive, user-friendly experience while still offering access to powerful analytics. This session will provide an overview of how to access and use the analysis tools, example workflows, and ideas about how to supplement your analysis scenarios with Esri-provided data.

Poolside Room
Architecting the ArcGIS Platform: Best Practices
Katherine Smyth

An appropriate set of architectures practices (business, information, technology) is necessary to support the delivery of desired business outcomes. Attend this session to understand best practices and practical approaches around people, processes, and technology that contribute to a successful and sustainable implementation of the ArcGIS platform.

Participants can use these guidelines to maximize the value of their ArcGIS implementation and meet their organizational objectives.

ASTERI

It has arrived...
the next generation of GNSS Receivers

www.AsteriNav.com

a division of Tri-Global Technologies, LLC

SESSION SCHEDULE
THURSDAY AFTERNOON, APRIL 12TH

Session Track III 1:00pm - 2:00pm	Exhibitor Visit 2:00pm - 2:45pm	Break	Session Track IV 3:00pm - 4:00pm
Minuet			
Big Data, Bigger Decisions / Tim Bohn Utilizing Drones for GIS Data Collection / David Denham		Break	Mobile GIS Workflows using Collector, Workforce and Navigator / Brig Bowles
Patio Room			
Lidar: Expanding beyond Framework Elevation Data Source to the Smart Community Infrastructure / Darin David Remotes Sensing Transportation with LiDAR / Chuck Boyer	Exhibitor Hall Visit	Break	Implementing ArcGIS Solutions in your Organization / Michael Beavers
Cavalier Room			
Getting What You Want Out Of SCAUG / SCAUG Officers New Braunfels Leverages Esri's Flood Basemap to Improve Flood Response / Greg Brown		Break	Spatial Analysis with Web GIS / Brad Owens
Poolside Room			
No Holds Barred GIS: Post-Maria Data Collection & Management for Departamento de Educación de Puerto Rico / John McEwen	**GIS For Managers ~ Adam Carnow**	Break	Architecting the ArcGIS Platform: Best Practices / Katherine Smyth

38

USER SESSION ABSTRACTS
THURSDAY, APRIL 12TH

Session Track III — 1:00pm to 2:00pm

Minuet Room — Two 30 minute presentations

Big Data, Bigger Decisions

Tim Bohn

The evolution of statewide orthophotography programs has yielded some exciting enhancements to publicly available data sets; however, these improvements have come with challenges of funding, data storage and distribution. Utilizing online imagery inspection is an excellent way to keep your project on schedule and not overload servers with multiple copies of data while still conducting a thorough review of data before final delivery. This presentation will provide insight into lessons learned from the past and best practices moving forward.

Utilizing Drones for GIS Data Collection

David Denham

With the capabilities of drones evolving at a rapid pace and the relatively inexpensive cost of this technology, more users are exploring how drones can be utilized in their daily operations. This presentation will review the requirements that must be met to use a drone commercially and the initial experiences of the City of Plano with drones, how we can use the data that they generate and potential uses for this technology in the future.

USER SESSION ABSTRACTS
THURSDAY, APRIL 12TH

Session Track III — 1:00pm to 2:00pm

Patio Room — Two 30 minute presentations

Lidar: Expanding beyond Framework Elevation Data Source to the Smart Community Infrastructure

Darin David

Lidar has undoubtedly emerged as the predominant remotely sensed elevation data source. Higher point densities, full waveform processing, and emerging photon counting technologies are all broadening the domain of advanced lidar applications and analytics. New commercial lidar technology offers unique competitive advantages; but with several options available, having introductory knowledge on how these systems operate and how to leverage the data is valuable for successful lidar program execution.

Remotes Sensing Transportation with LiDAR

Chuck Boyer

The power of LiDAR gives geospatial clients the fastest, safest and most cost effective methodology to collect high accuracy remote sensing surveys. LiDAR enables you to design surfaces, transportation models and hydro models for storm drainage. The fast and accurate 3D surface model can be within one tenth of a foot accurate (with proper control) and can be flown in helicopter or fixed wing aircraft. Turn around for delivery is days/weeks versus months for traditional surveys.

Cavalier Room — two 30 minute presentations

Getting What You Want Out Of SCAUG

SCAUG Officers

Ever wonder about SCAUG? What questions might you have? What is SCAUG and What is available to a member? Or, are you curious about supporting SCAUG? Perhaps you would like to know something about the officers or the positions they hold and how that positions serves SCAUG members. This session will afford audience feedback with the intent to point the ways to gain from, or improve, SCAUG.

USER SESSION ABSTRACTS
THURSDAY, APRIL 12TH

Session Track III — 1:00pm to 2:00pm

Cavalier Room — Second presentation

New Braunfels Leverages Esri's Flood Basemap to Improve Flood Response

Greg Brown

The City of New Braunfels, TX is located in the heart of Flash Flood Alley. With the impending threat of flooding in the area, response to those events must be proactive, efficient and effective. There can be no time wasted during a flood response so the City incorporated Esri's flood basemap to develop response plans that improve all phases of emergency management. Gone are the days of guessing where the flooding will be and replaced by predictive analysis using Esri's inundation modeling.

Session Track III — 1:00pm to 2:00pm

No Holds Barred GIS: Post-Maria Data Collection & Management for Departamento de Educación de Puerto Rico

John McEwen

In late September 2017, Hurricane Maria devastated the Commonwealth of Puerto Rico only a few weeks after Hurricane Irma had blown over its eastern islands. The Commonwealth hired consulting firms to assist with developing Project Worksheets to submit to the Federal Emergency Management Agency in order to obtain funds to repair and rebuild public buildings and facilities. One agency in particular, the Departamento de Educación de Puerto Rico, is responsible for 1,131 public schools each of which required on-site inspections to evaluate health and safety as well as damage to decide which schools could reopen as soon as possible. This required leveraging GIS, data collection technology, web development, and programming to efficiently collect, organize, and disseminate reports for individual schools. The presentation highlights the challenges, methods, data, technology, and products related to the project.

TNRIS

TEXAS NATURAL RESOURCES INFORMATION SYSTEM
A Division of the Texas Water Development Board

Events to Bring the GIS Community Together

Whether you attend the GeoRodeo, a one-day conference focused on innovative coding and developer insights, or the Texas GIS Forum, the longest-running GIS gathering in the state, TNRIS brings GIS professionals together so we can connect, learn, and grow as a community.

Code, Code, on the Range

GEORODEO
Texas GeoDeveloper Roundup
May 4, 2018 | Austin, Texas

TEXAS GIS FORUM

October 22-26, 2018   Austin, Texas

Save the dates and visit **tnris.org** for updates

THURSDAY, APRIL 12Th

2:00pm to 2:45pm

Poolside Room – One 45 minute presentation

GIS For Managers – The Seven Elements of a Successful Enterprise GIS

Adam Carnow

It takes more than technology for an enterprise GIS to be successful. It requires business and IT management skills. This session will review the seven elements of a successful enterprise GIS, and provide strategies how GIS Managers can implement them. The seven elements are:

- Vision and Leadership
- Understand how GIS can contribute to your organization's success
- Develop and maintain a GIS Strategic Plan
- Implement effective governance
- Implement evolutionary approaches (change management)
- Deploy engaging apps
- Recruit, develop and maintain good staff

ESRI TECHNICAL SESSION ABSTRACTS
THURSDAY, APRIL 12TH

Session Track IV —3:00pm to 4:00pm

Minuet Room
Mobile GIS Workflows using Collector, Workforce and Navigator
Brig Bowles

ArcGIS field apps help you use the power of location to improve coordination and achieve operational efficiencies in field workforce activities. Reduce or even replace your reliance on paper. Ensure that everyone, in the field and the office, uses the same authoritative data so you can reduce errors, boost productivity, and save money. See three of these apps; Workforce, Navigator, and Collector, in a set of demonstrations and discussions to get you started.

Patio Room
Implementing ArcGIS Solutions in your Organization
Michael Beavers

This session will describe how to deploy the ArcGIS for State and Local Government solutions and configure the maps and apps to meet specific business needs in your organization. Newly released maps and apps that help organizations tackle public health challenges, understand and communicate environmental impacts and maintain situational awareness before, and during, an incident or event will be highlighted in this session.

Cavalier Room
Spatial Analysis with Web GIS
Brad Owens

This session introduces the spatial analysis capabilities available in web GIS, via both ArcGIS Online and ArcGIS Enterprise. These spatial analysis tools are designed to provide an intuitive, user-friendly experience while still offering access to powerful analytics. This session will provide an overview of how to access and use the analysis tools, example workflows, and ideas about how to supplement your analysis scenarios with Esri-provided data.

ESRI TECHNICAL SESSION ABSTRACTS
THURSDAY, APRIL 12TH

Session Track IV —3:00pm to 4:00pm

Poolside Room

Architecting the ArcGIS Platform: Best Practices
Katherine Smyth

An appropriate set of architectures practices (business, information, technology) is necessary to support the delivery of desired business outcomes. Attend this session to understand best practices and practical approaches around people, processes, and technology that contribute to a successful and sustainable implementation of the ArcGIS platform.

Participants can use these guidelines to maximize the value of their ArcGIS implementation and meet their organizational objectives.

UGTI — United Geo Technologies, LLC

Patsy Ingram
President
pingram@unitedgeotech.com

David Zuniga
Vice President
dzuniga@unitedgeotech.com

Photogrammetric Mapping, Orthophotography, Airborne LiDAR and Geographic Information Systems (GIS) Specialists

United Geo Technologies LLC

A small, woman owned business
7715 Mainland, Suite 110
San Antonio, Texas 78250
210.684.2147
www.unitedgeotech.com

WBE / DBE / SBE
TxDOT Precertified 15.3.1

HUB

MAP GALLERY ABSTRACTS

A New Hope for New Hope

Ramona Luster, Collin County, TX

The new Mayor of the Town of New Hope met with the newly appointed County Commissioner, and together they looked at their area on the map of Collin County, Texas. The Mayor asked the Commissioner, "Why is there no ETJ for New Hope?" The Commissioner asked the County GIS staff to look into this question. Following research and coordination with nearby cities, the missing Extra-Territorial Jurisdiction was revealed from the mists of the past - providing a new hope to New Hope.

Building Better Data for Capital Improvement Planning of Water Infrastructure

Shannon Wilder, City of Stillwater, OK

Each year, the City of Stillwater's Water Resources Engineering Department looks at next year's budget to determine how it will allocate funds to projects in the water distribution system. In previous years, projects were determined primarily from a yearly meeting with City Operations Staff. The meeting focused on staff memory of areas in the distribution system needing improvements, due to leaks, pressure problems, etc. In recent years, staff is now able to leverage information collected from multiple sources and display this in GIS to help define potential project areas.

MAP GALLERY ABSTRACTS

Calculating Surface Areas of High Risk Dams in Denton County, TX

Aliza Etkind, Denton County, TX

Denton County, TX has several dams that are considered high risk by the Emergency Services Department. A methodology has been developed that can show how a dam's volume and surface area have changed over time. This methodology uses contour data and spatial analyst tools to visualize how three dams in Denton County have changed over time.

Can We Afford to Live Near Our Jobs?

Bret Fenster, GISP, County of Collin, TX

Home values are increasing rapidly in Collin County and elsewhere. Do the high prices cause employees to live outside the county? Our County Administrator requested a map showing where current employees are living in order to see how many were actually commuting from other surrounding counties. Our poster shows the current distribution of employees and looks at department positions, home values, salaries and tenure. We're looking for patterns to explain how these factors relate to where our current employees live."

MAP GALLERY ABSTRACTS

GIS working with Elections

Julie Phillips, Denton County, TX

Denton County has integrated the capabilities of GIS with the Elections Department to improve the accuracy and quality of the voter database, making it easier for voters to participate in the electoral process. By employing GIS data, elections officials are able to make informed decisions when redistricting, selecting polling sites, and holding special elections.

It's a bird, it's a plane, it's a UFO!

Neil S. Rose GISP, Parker Jones, City of McKinney, TX

The mystery of the unexplained fascinates humans across the world. Rationalizing explanations of the unknown has been a long held. As time marches on, record keeping has become more detailed and available. As such, researching fields of interest using data previously unknown have unlocked insight into phenomena generally regarded as myth or legend. UFOs have been an actively reported phenomena since the '40s and several organizations were born from this phenomenon in order to track and record sightings. As the internet began to develop, message boards and websites began collecting and disseminating UFO data with details of where, when, and what. Using this data, the observational accounts have been converted into GIS data, mapped, and analyzed against population, time, weather, expected observations, and other variables.

Mapping Alternative Transportation Using Connected Devices

David Denham, City of Plano, TX

The use of GPS enabled devices to measure physical activity are generating a vast and valuable source of data. This map uses data from these types of devices to show the levels of traffic not using motorized vehicles within the City of Plano.

MAP GALLERY ABSTRACTS

Legacy Over Time

Shari Forbes, GISP, City of Plano, TX

Legacy is a 2,600 acre business park located in Plano, Texas, that is a major employment center for the northern Dallas-Fort Worth metropolitan area. Legacy was conceived in the late 1970's by H. Ross Perot to provide a home for his company, Electronic Data Systems, along with other corporations. With its large tracts of land, master planned environment, and stringent development standards, Legacy has over the years attracted many headquarters of major companies over the years including JC Penney, Frito-Lay, and Toyota. GIS was used to examine change over time for Legacy. Specifically a methodology was developed from aerial photography and historic tax roll data combined with NCTCOG data to determine employment over the decades from 1989 to today.

MAP GALLERY ABSTRACTS

Mystery Solved: Generalizing Our Detailed Soil Data

Marcus A. Arreguin, City of Longview, TX

The City of Longview received a request to make an updated version of a general soil map for Gregg and Upshur Counties in Texas similar to one created by the USDA in 1982. The project's input data was a current detailed soil dataset. This dataset has 33 soil types represented for the study area, as opposed to 8 for the general soil map. General soil maps are used for large area planning, as opposed to detailed soil maps, which are often used at the tract level. This poster shows before and after maps and explains the process that was used for converting the detailed soil units to general soil units. The author did not find a set process on how to make this conversion, so he developed a methodology based on clues from the 1982 map, the detailed soil dataset, and relevant documents he researched.

San Antonio River Authority GIS Enterprise

Sara Mendiola, San Antonio River Authority, TX

This GIS Data Map poster was created to increase the use of GIS and to increase a way of thinking spatially within our agency. It displays the vastness of the San Antonio River Authority (SARA) GIS Enterprise system and the many platforms in which you can access local data. Ranging from the traditional enterprise geodatabase to the more creative Story Maps, SARA houses data in many locations and in many different formats. Highlighted in the poster are the ArcGIS Online Web Viewers we have created for several of our internal departments. These were developed to empower SARA employees to explore the possibilities of spatial data and tools, while simultaneously reducing the dependence of non-GIS users on the GIS team for completing routine tasks. GIS as a system is not the easiest to communicate to a non-GIS user so this Data Map Poster aims to bridge that gap and show how and why we use GIS as a tool to solve geospatial problems at SARA.
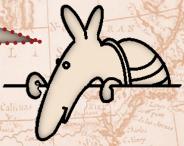
MAP GALLERY ABSTRACTS

Tracking West Nile Virus in Denton County

James Bolen, Denton County GIS, TX

Denton County tracks the presence of West Nile Virus (WNV) using a multi-agency approach; each city within the county manages their own surveillance program. Denton County then aggregates that data and adds in the surveillance data from unincorporated areas to better track mosquitoes at the county level. This allows the GIS team to provide maps to the public that track the spread of WNV across the county.

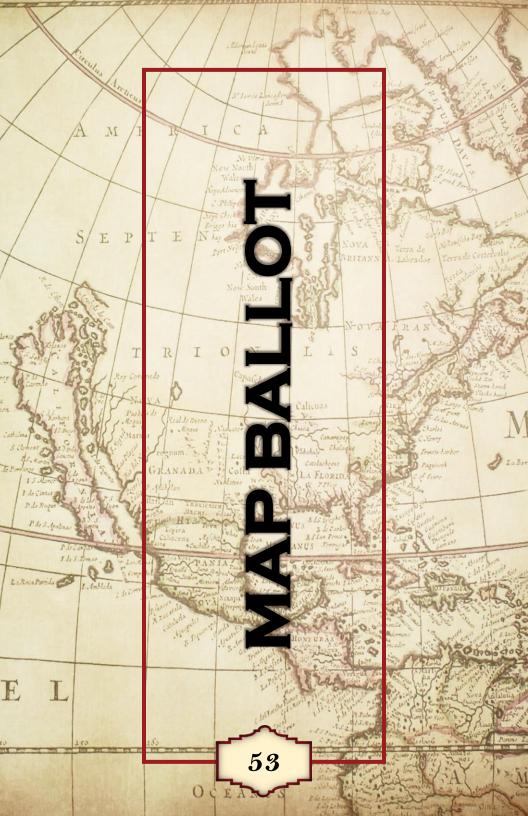TUG says: Don't forget to vote for your favorite maps in the Map Gallery on Thursday, April 12th before 3:30 pm!
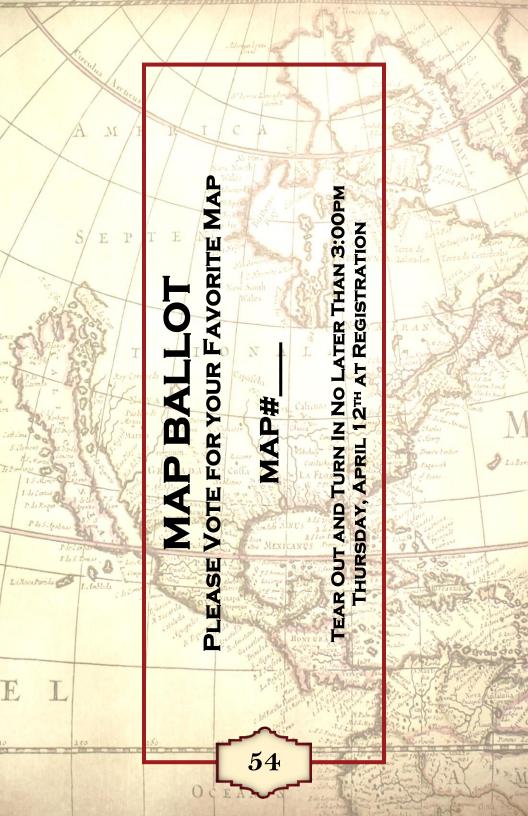
Visualizing Spatio-Temporal Distribution in Code Enforcement

Jordan Carmona, City of McKinney, TX

Temporally consistent, readily-available spatial records should be considered both building block and by-product of a "mature" GIS. This tier of information enables more robust analyses of data through the inclusion of the 4th dimension in more than a fleeting manner. The Space Time Pattern Mining toolbox available in ArcGIS Pro enables a visually interactive exploration of data trends in both time and space. Help investigate a trove of more than 100,000 municipal code enforcement incidents spanning more than a decade in the City of McKinney's spatio-temporal hot spots.

MAP BALLOT

MAP BALLOT
PLEASE VOTE FOR YOUR FAVORITE MAP

MAP#____

TEAR OUT AND TURN IN NO LATER THAN 3:00PM
THURSDAY, APRIL 12TH AT REGISTRATION

54

Geocortex®

by Latitude Geographics®

Geocortex Essentials

Build and configure targeted, purposeful, powerful web mapping applications.

FUGRO

MOVE BEYOND TRADITIONAL **2D GEOSPATIAL DATA.**

IMAGINE WHERE A **3D OBLIQUE MODELING** ENVIRONMENT COULD TAKE YOU...
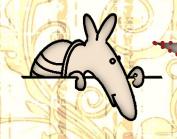
Ask us.

www.fugro.com/geospatial

SUBCHAPTERS

Alamo Area GIS User Group — AAGIS

East Texas GIS & GPS User Group — ETUG

TUG asks, 'interested in starting or joining a local user group'? Check out the SCAUG web site to see how!

Coastal Bend GIS User Group — CBGIS

Rio Grande Valley Arc User Group — RGVAUG

WDS *western data systems* & **Martin Instrument** SURVEYING · CONSTRUCTION SOLUTIONS

are now

ALLTERRA™

AllTerra Central (formerly Western Data Systems and Martin Instrument) is an authorized Trimble Dealer specializing in the sales, rentals, training and technical support for Survey, Mapping and GIS, Marine, Utility, Environmental, Fleet Management and Seismic Industries. Combining 50 year of experience, AllTerra Central supplies top of the line Geospatial measurement and GPS and GIS related products in Texas and Oklahoma, including scanners and UAVs. We also offer several peripheral items such as pipeline locators, ground penetrating radars, laser rangefinders, laser scanners, GPS cameras, barcoders, tablets and much more. AllTerra Central has four full Survey Supply stores in Texas and delivers wood, stakes, flags and any supply needed daily. With our extensive rental fleet we have more than enough gear to get you through any job and can ship worldwide. Our Technical Support staff is comprised of a staff that has worked in the field and can help out with any support need you have. We offer free support to both our rental and sales customers. Finally, AllTerra Central also manages the largest private VRS Network in the world. This network is available to both Survey and Mapping communities. We are adding base stations continuously and the amount of users grows each year.

For a full line of our products and services, please visit our websites at www.wds-us.com or www.martininstument.com (online ordering available at martininstrument.com). With seven offices across Texas and Oklahoma you are never too far from the experts!

GOLD

Since 1996, Cityworks® has been helping organizations maintain smart, safe, and resilient communities by streamlining the care of public infrastructure, permitting, and property. Built exclusively on Esri® ArcGIS® technology, Cityworks' Web GIS-centric platform combines the authoritative asset inventory in a geodatabase with business process applications for managing workflow, scheduling resources, and prioritizing activities. Time-tested and proven, Cityworks is Empowering GIS® at more than 600 organizations around the world, saving time and money while improving operational efficiencies.

Esri, the global market leader in geographic information systems (GIS), offers the most powerful mapping and spatial analytics technology available. Since 1969, Esri has helped customers use The Science of Where to unlock the full potential of data to improve operational and business results. Today, Esri software is deployed in more than 350,000 organizations including the world's largest cities, most national governments, 75% of the Fortune 500, and more than 7,000 colleges and universities. Esri engineers the most advanced solutions for digital transformation, IoT, and location analytics to create the maps that run the world. Visit us at esri.com/news

SILVER

A Aerial Services, Inc. is a veteran-owned small business corporation delivering quality geospatial solutions with speed, accuracy, and innovation to public and private sectors. With over 50 years of experience we have the knowledge and capeability to complete your project. Aerial Services' personnel, equipment, software, and experience are unsurpassed.

59

SILVER

Asteri and its brand of wearable GNSS receivers, was founded in 2016 to offer a smart device capable GNSS platform for integrators. As a division of Tri-Global, we realize the importance of working closely with others to insure high accuracy positioning inside their field inspection systems, augmented reality viewers, and BYOD GIS data collection applications.

The Asteri X-Series is engineered to provide precise GNSS measurements in a fully integrated, rugged, small wearable platform; offering real-time submeter, subfoot, and centimeter level VRS/RTK positioning.

Stop by and see why others have been partnering with Asteri and making the switch to the next generation of GNSS receivers.

Located in the greater St. Louis, Missouri area, Surdex Corporation is recognized as one of the top geospatial data providers in the United States. The company supplies data to federal, state, county and municipal governments as well as the private engineering companies. We maintain a staff of almost 100 employees including pilots, computer specialists, imaging specialists, LiDAR specialists, surveyors, Registered Land Surveyors, and Certified Photogrammetrists. Surdex owns a fleet of ten high-altitude aircraft fitted with sophisticated digital sensors to acquire imagery and LiDAR data.

TNRIS' mission is to serve as the state clearinghouse for quality geographic information through coordinated collection, management, and dissemination of geographic data.

TNRIS accomplishes this mission by working closely with state, regional, local, and federal government agencies as well as by promoting the use of geographic information technology through education courses, quarterly networking, and an annual GIS conference known as the Texas GIS Forum.

60

STANDARD

The way you use geospatial data and the information you need about your world is changing. Fugro is changing with it. We understand the evolving application of geospatial information and equip our customers with the tools to implement efficiencies that dramatically improve business performance. Backed by years of expertise and industry specific knowledge, our expanding GIS services cater to our customers' needs for accurate and efficient spatially derived intelligence. We no longer just deliver data, we provide the necessary analytics for our local government and commercial customers to realize true benefits in transportation, utilities, emergency response, infrastructure development and property management.

The GIS Certification Institute (GISCI) is a tax-exempt not-for-profit organization that provides the geographic information systems (GIS) community with an internationally-recognized, complete certification program. GISCI offers participants from the first early years on the job until retirement, a method of developing value for professionals and employers in the GIS profession. There are currently over 8000 active GISPs located throughout the world.

The current GISP Certification process consists of a Portfolio Application that describes an applicant's background in Ethics, Education, Experience, and Contributions to the Profession as well as the GISCI Geospatial Core Technical Knowledge Exam added in 2015.

Selected GISPs performed groundbreaking work in the process of creating the Exam informed by both the Geospatial Technical Competency Model (GTCM) approved by the Department of Labor in 2010 and the GIS&T Body of Knowledge developed by UCGIS.

61

GISi is an award-winning GIS professional services firm located in Birmingham, Ala., with offices throughout the United States. GISi has a passion for delivering customer driven location technology solutions to federal, state and local governments, and commercial organizations.

Latitude Geographics Group Ltd. is a Geographic Information Systems (GIS) software development and services company. Latitude's Geocortex products and solutions address common GIS application development challenges organizations encounter when deploying Esri web GIS technology. They offer pragmatic solutions to improve developer productivity, help solve complex business problems, and enable a better user experience.

Maps have always been at the heart of HERE's mission, only the maps we are creating today are very different from those of the past. Powered by our leading location cloud and enriched with dynamic data, maps from HERE are increasingly real-time. Now YOU can contribute map updates by visiting upload.here.com and submitting GIS data for your area. To learn more about HERE, including our new generation of location platform services, visit 360.here.com and WWW.HERE.COM.

62

Land Scout integrates mapping, regulatory, and environmental data into a seamless, real-time, collaborative environment. Land Scout creates collaborative applications that incorporates all the data needed to make quick decisions and features a wide range of mapping and data options in an intuitive, interactive space that levels the competitive playing field.

Land Scout identifies mineral and surface ownership and lease information from the Bureau of Land Management, Bureau of Indian Affairs, and others. All of this, along with supporting documentation, is available at the click of a button. These tools expedite the permitting process, document decisions and streamline due diligence while freeing up project management teams to make quick decisions, troubleshoot pitfalls, and determine avoidances while generating a working project record.

NewEdge Services, LLC is the local leader in implementing GIS, Asset/Work Management Systems, Cloud Hosting, and Related Services. NewEdge provides clients with turnkey solutions for a wide variety of needs and can provide additional resources for clients on specific projects. Our experience demonstrates our abilities, which include:

- Database design, implementation, and management
- Custom web and mobile applications
- Hosted cloud solutions
- GIS data creation
- GIS analysis
- Hard copy map/plan inventory, cataloging, and georeferencing
- System integration
- Historical data conversion
- Asset/Work management system implementation and integration
- Permitting system implementation and integration
- User training and support
- And much more...

NewEdge has strategically aligned with multiple business partners to provide our clients with implementation services for products that are leaders in their perspective fields. Our long standing business partner relationships include:

- Amazon Web Services
- CitySourced
- Cityworks
- Esri
- Freeance
- Geocortex by Latitude Geographics

The NewEdge team has all of the knowledge, experience and expertise needed to successfully implement all GIS related projects. Our team has been working together since 2008 and has over 100 years of combined experience in working with multiple types of data, software, and technologies that will be critical for a successful project.

RazorTek Inc. is a privately held GIS and Remote Sensing consulting firm specializing in design, development and automation of complex systems for spatial data display and analysis. Established in 2002, RazorTek serves both the private and public sectors in providing services and technology assistance. We also offer onsite GIS training, data conversion, data development, data collection, Georeferencing, image processing and feature extraction. RazorTek is an authorized reseller for ESRI, LizardTech (GeoExpress), Terrago and Planetlabs (satellite imagery) including a provider for satellite imagery from Digital Globe and a provider for aerial photography from 1inch to 2 feet plus LiDAR collects if needed.

RazorTek is certified by the SBA as an 8(a) company and certified as a DBE (Disadvantage Business Enterprise) by the Tennessee Department of Transportation in addition we are certified as a MBE (Minority Business Enterprise) by the State of Tennessee and the NCTRA (North Central Texas Regional Certification Agency) in Texas.

RazorTek is now listed on the Texas DIR contract (DIR-TSO-3471) to provide GIS products and services to the state of Texas.

If more information is required for RazorTek capabilities please contact us by email (danr@razor-tek.com) or call us at 901-922–5448 or (303) 919-2971 or visit our website www.razor-tek.com.

Sanborn is a 21st century industry leader in geospatial solutions and technology, offering superior services, program management, and customer support. For our clients we provide a national presence, extensive resources, quick responses, and exceptional value. For 150 years, we have been a leader in the rapidly growing geospatial industry, with successful projects delivered worldwide.

TeachMeGIS is an ESRI Business Partner who has been helping professionals across the globe get up and running with GIS for the past 16 years. Staffed with industry professionals who have extensive GIS and training experience, TeachMeGIS offers high-quality GIS training courses that can be taught on-site at your facility or in our training center in Houston, Texas. Our curriculum team can customize the classes for you, as well. Our professional GIS consulting staff are available for short- or long-term projects. Please give us a call if you need help meeting your company's GIS goals this year.

United Geo Technologies, LLC, your geospatial service provider, offers a wide range of services such as photogrammetry, orthophotography, parcel mapping, LiDAR and geographic information systems. This small, woman owned business (SBE / WOSB), a State of Texas HUB, and has extensive experience in the geospatial disciplines and includes a Certified Photogrammetrist and ArcGIS Specialist. UGT's personnel have extensive experience in the following areas:

- Aerial Imagery Acquisition (both analog and digital)
- Airborne GPS
- Aerial Film Scanning
- CAD
- Contour Generation
- Digital Aerial Triangulation
- Digital Elevation Models (DEM)
- Digital Terrain Models (DTM)
- Digital Orthophotography (TIFF)
- Geographic Information Services (ESRI)
- Image Compression (MrSID, JPEG2000, ECW)
- Drone Image Processing
- LiDAR DTM and Contour Integration
- Parcel Mapping
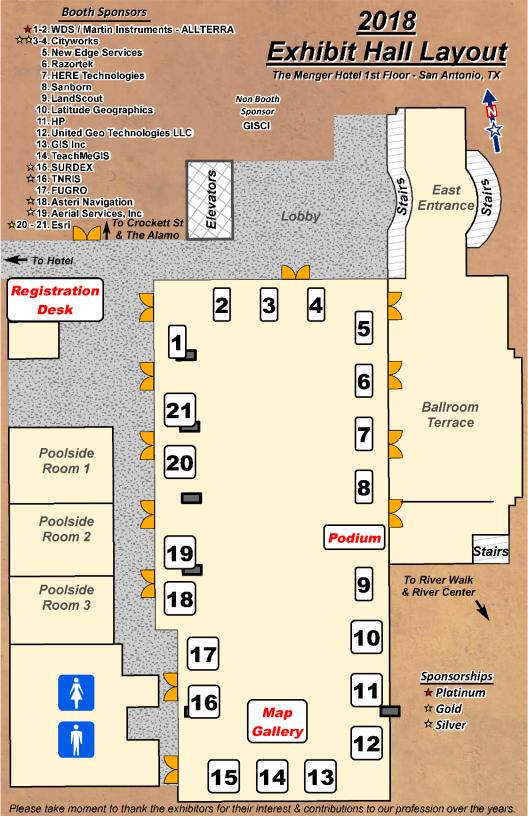- Planimetric Data Capture from Imagery
- Planimetric Feature Extraction From LiDAR

Please visit our website at www.unitedgeotech.com or feel free to contact us at (210) 684-2147. We look forward to hearing from you!

TUG says:
Let Us Know about
Your Favorites of
SCAUG 2018!
~
Use the app on the
Conference Portal

That's the QR Code
right there.

GISP CHECKLIST

Description	Classification	Credit	Re-Cert Credit	Credits Earned
2½ Day Regional SCAUG Conference in San Antonio, TX (20 hour)				
Attendee (0.1 x # of days attended)	EDU	0.25	3.33	
Presenter (1 point per instance)	CON	1	3	
Poster Presenter (1 point per instance)	CON	1	3	
Poster Award Winner	CON	2	6	
1/2 Day Training (4 hour) *(Training Certificate required for documentation credit.)*				
ArcGIS Pro Tips & Tricks	EDU	0.1	0.67	
ArcGIS Online: From Maps to Apps	EDU	0.1	0.67	
1/2 Day Training Instructor : _____	EDU	3	9	
1 Day Training (8 hour) *(Training Certificate required for documentation credit.)*				
Getting Started with ArcGIS Arcade (Monday)	EDU	0.2	1.33	
Labels & Annotation Mnmgt. in ArcMap	EDU	0.2	1.33	
Data QC and Cleanup	EDU	0.2	1.33	
Python Primer — Tailored to Non-Programmers	EDU	0.2	1.33	
1 Day Training Instructor : _____	EDU	3	9	
2 Day Training (16 hour) *(Training Certificate required for documentation credit.)*				
ArcGIS Enterprise: Configuring a Base Deployment	EDU	0.4	2.67	
Migration from ArcMap to ArcGIS Pro	EDU	0.4	2.67	
Unmanned Aerial Systems (UAS) in GIS	EDU	0.4	2.67	
2 Day Training Instructor : _____	EDU	3	9	
TOTAL GISP CREDITS EARNED				

68

Booth Sponsors

★ 1-2. WDS / Martin Instruments - ALLTERRA
☆☆ 3-4. Cityworks
5. New Edge Services
6. Razortek
7. HERE Technologies
8. Sanborn
9. LandScout
10. Latitude Geographics
11. HP
12. United Geo Technologies LLC
13. GIS Inc
14. TeachMeGIS
☆ 15. SURDEX
☆ 16. TNRIS
17. FUGRO
☆ 18. Asteri Navigation
☆ 19. Aerial Services, Inc
☆ 20 - 21. Esri

To Crockett St & The Alamo

Non Booth Sponsor
GISCI

N

Elevators

Lobby

Stairs

East Entrance

Stairs

◄ To Hotel

Registration Desk

Poolside Room 1

Poolside Room 2

Poolside Room 3

1

2 3 4

21

20

19

18

17

16

Map Gallery

15 14 13

5

6

7

8

Podium

9

10

11

12

Ballroom Terrace

Stairs

To River Walk & River Center

Sponsorships
★ *Platinum*
☆ *Gold*
☆ *Silver*

Please take moment to thank the exhibitors for their interest & contributions to our profession over the years.