REGIONAL GIS MEETING

December 2, 2020 – 9:00am – 4:00pm
Zoom Webinar

9:00am **Welcome –** Shelley Broyles - NCTCOG

9:05am **Not Your Typical Contour Generation Process: Multiple Sources, Various Years, and One Regional Layer** - Ruchi Basnet, GISP – NCTCOG
NCTCOG has developed a layer of 2' digital elevation contours by bringing together data from a variety of recent sources. Some of the data were already in the desired DEM format. Other data arrived in the form of LiDAR point cloud data (LAS files) and had to be transformed to DEMs. This presentation will cover the acquisition and the process of rasterizing, mosaicking and smoothing to get the final dataset, which covers much of the NCTCOG region.

9:40am **GIS and Elections - A Perfect Match** - Tim Nolan - Collin County
Collin County, Texas launched its first polling location line wait dashboard for the 2010. Ever since then, we have been searching for new ways to make voting convenient for our citizens. In this session, we will demonstrate our line wait and closest polling location app. We also demo our voter roster visualization that shows who voted, where they live and voted. We will also spend a little time on election results and the changing voting trends in Collin County. We hope to illustrate the importance of GIS for Elections by the end of the session.

10:15am **A Behind-the-Scenes Look at a GIS Based Disaster Response** - David Allen, GISP - City of Euless & Texas EGRT
Take a look at how Texas EGRT accomplished a variety of response mapping for recent disasters including hurricanes, floods, tornadoes, and the recent pandemic. The viewpoint is from the eyes of a GIS analyst and how these things are done rather than just marveling at the results.

10:50am **Improving Community Events with GIS** - Shari Forbes, GISP, Georgeta Ungureanu, GISP & Sheen Kang - City of Plano
Plano developed a 100% GIS Solution for our Trash or Treat Community Cleanup Event this Halloween. We employed various off-the-shelf Esri products to assist with volunteer registration and communication such as a story map, interactive map, Survey123 Connect, Operations Dashboard, and behind the scenes python scripts for calculating capacity for both the event and the party RSVPs. Our development of this program has saved hundreds of people-hours when it was previously done with minimal software support.

11:25am **The Texas Strategic Mapping: Program Statewide Parcels and Address Points** - Gayla Mullins & Lauren Kirk – TNRIS
The Strategic Mapping Program at the Texas Natural Resources Information System is ever evolving to meet the needs of GIS users across the state. Learn about the latest datasets available or under development through the StratMap Program, including high resolution imagery, scanning of the State historic aerial photo archive, and the 100% completion of lidar coverage for Texas. Statewide land parcels and address points are new initiatives to StratMap, and an emphasis will be made on these two very important datasets.

Afternoon

1:00pm **Nearmap's Imagery as a Service + NCTCOG's Spatial Data Program: A Promising Partnership** - Brett Clark – NearMap

Earlier this year NCTCOG published an RFP for a recurring aerial imagery service that can be added as part of the COG's Spatial Data Cooperative Program (SDCP), which has been awarded to Nearmap. Nearmap traditionally collects the more urban part of the greater DFW area 2-3 times each year at sub 3" resolution. Captures are then processed and made available via cloud services within days after collection. During this presentation, Nearmap will review the scope of the services offered, review imagery samples, clarify the frequency of updates, and review the options available to all participating COG members that opt-in for the service.

1:35pm **Drone2Map Collection - SiteScan** - Pamela Kersh – ESRI

The use of drones for mapping, emergency management, and public safety has become one of the fastest-growing fields within GIS. Esri's ArcGIS Drone Collections provide turnkey solutions for capturing, processing, analyzing, managing, and enhancing drone imagery. Each collection provides a pre-packaged configuration of ArcGIS products specifically tailored to different kinds of users and projects. The presentation will cover the capabilities of Esri's Drone Collections, including Drone2Map and SiteScan, to help you unleash the power of drones!

2:10pm **Shifting GIS Enterprise to the Geospatial Cloud** – Jon Downey – Woolpert

The "public cloud" is radically transforming how we view IT system infrastructure, and the strong tie between IT and GIS means that GIS is along for the ride. Customers are migrating their existing, on-premise data and GIS infrastructure to the geospatial cloud using methods including "lift-and-shift." This session will showcase recent clients lift-and-shift project that featured Esri ArcGIS Enterprise software, the STREAM:RASTER solution for serving raster data in the cloud, and machine learning. Learn how shifting GIS operations to the geospatial cloud can occur at the best pace for every organization—including yours.

2:45pm **Working with Real Time Traffic Data (Syncing Traffic Data with FME)**- Beni Patel & Trey Nunn – Tessellations

Tessellations used CO Austin Real Time Traffic Incident (public portal) Traffic Accident Data and utilized FME to update the database Dashboard, where you can sort by numerous criteria. Then we utilized LinkIT (Unstructured Data search index and retrieval) esri extension to search for individual crash records with photos etc. And then some uses of this application.

3:20pm **Enhanced Land Use/Land Cover Mapping for NCTCOG -** Benjamin Downey – Fugro

In this new age, it has become a standard to derive information from geospatial data in an automated fashion. Land Use and Land Cover datasets are no exception. With lidar being flown with more density and imagery being flown with higher resolution, the results can be an accurate and detailed automated map depicting impervious surfaces, vegetation analysis across large expanses, and forestry calculations, among others. These maps then can be used to derive percentage of an area that will run off, types of plants which will grow in certain areas and a biomass index to name a few of the uses of this data.