







2025 NCAUG Spring Symposium AGENDA

Title:	Elevating Innovation: The Power of Drones A Symposium on Unmanned Aerial Vehicles (UAV) in Geospatial Technology	Date & Time:	5/2/2025 10:00 AM to 4:00 PM
Location:	Chatham County Agriculture & Conference Center 1192 US Hwy 64 West Business, Pittsboro, North Carolina 27312	More Information: https://www.ncaug.com/	
Purpose:	The purpose of this GIS symposium is to explore the latest advances and applications of Unmanned Aerial Vehicle (UAV) technology in geographic information systems (GIS), including data collection, processing, and analysis, and to provide a forum for sharing knowledge and best practices among researchers, practitioners, and industry professionals.		

FRIDAY 5/2/2025

Description	Lead(s)	Times
Welcome & Introductions		10:00 – 10:05 am
<p>Leveraging UAS for Enhanced Geospatial Data Collection and Analysis</p> <p>The integration of Unmanned Aerial Systems (UAS) into the geospatial industry has transformed data acquisition workflows, enhancing efficiency, accuracy, and accessibility. This presentation will explore the practical applications of drones in GIS and geospatial data collection, focusing on how modern UAS technologies improve mapping, surveying, and modeling processes.</p> <p>Key discussion points will include advancements in drone-based photogrammetry, LiDAR applications, RTK/PPK accuracy considerations, and real-world case studies demonstrating how geospatial professionals can leverage UAS for infrastructure assessment, environmental monitoring, and land management. Attendees will gain insights into best practices for UAS mission planning, regulatory compliance, and data integration within GIS platforms.</p> <p>Additionally, if conditions allow, during the afternoon demonstrations I will showcase real-time drone data capture techniques, highlighting the advantages of automated flight operations and post-processing workflows. This session will provide a practical and technical understanding of how organizations can integrate UAS technology to enhance geospatial data collection and decision-making processes.</p>	<p>Paul Rossi, President Nine Ten Drones</p> 	10:05 – 10:30 am
<p>Expanding the Use of Drones in Public Safety Operations</p> <p>As drone technology continues to evolve, its impact on public safety operations has become increasingly significant. This session will explore how the integration of small Unmanned Aerial Systems (sUAS) has transformed situational awareness and improved the safety of both first responders and the scenes they manage. Beyond their initial use as aerial cameras, drones are now playing a critical role in payload deployments, allowing for faster and more efficient delivery of life-saving equipment. The Town of Oak Island’s successful implementation of a full-time drone unit to support police, fire, and internal departments serves as a prime example of how these innovations can be</p>	<p>Shawn Barry, MSJS Chief Public Safety Drone Pilot, Oak Island, NC</p> 	10:35am – 11:00 am

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<p>applied in real-world scenarios. Attendees will view compelling use case videos and learn key strategies behind the success of Oak Island's drone program.</p>		
<p>The History of UAS</p> <p>Unmanned aerial systems and vehicles have an interesting history that has come in many forms and for a variety of applications. For example, innovations for producing photography from unmanned platforms have existed as long as the photographic medium itself. This presentation will provide a general overview of the history of unmanned from the early days of aerial photography, its wide adoption in the defense industry, and the influence of RC airplane and helicopter hobby culture. All these influences have helped to define the rapid adoption of these vehicles and systems within the surveying and mapping industry and associated applications for GIS.</p>	<p>Jamey Gray, P.L.S., G.I.S.P., GPI Geospatial, Inc.</p> 	<p>11:05am – 11:30am</p>
<p>Lightning Talk/Panel Discussion</p> <p>This panel discussion will focus on the topic of UAV's, GIS, and how they are applied. The discussion will include the exchange of ideas and experiences among experts in the field. It will cover a wide range of topics, including the latest advances in UAV technology, the challenges of integrating UAV data with traditional GIS data, and the potential for UAV's to revolutionize industries. Overall, the discussion will highlight the immense potential of UAV's when integrated with GIS and applied to various disciplines, while also acknowledging the need for careful planning and responsible use of these technologies.</p>	 <p>Presenters & Diamond Sponsors</p>	<p>11:35am – 12:00pm</p>
<p>Sponsor Parade</p> <p>The sponsor parade will showcase and acknowledge the contributions of the event sponsors, who have provided support and resources for the symposium. This parade is a way for the symposium organizers to publicly thank and recognize the sponsors, and to give them an opportunity to showcase their products or services to the attendees. The sponsor parade serves as a valuable networking opportunity for sponsors and attendees alike.</p>	 <p>Diamond and Platinum Sponsors</p>	<p>12:00pm – 12:10pm</p>
<p>Door Prizes</p>		<p>12:10pm – 12:15pm</p>
<p>Lunch</p>	<p>All Participants</p>	<p>12:15 – 1:15 pm</p>
<p>Outdoor UAV Demonstrations</p> <p>The afternoon UAV flight demonstrations will be concurrent in separate areas around the conference center. Attendees may migrate between the demonstration areas.</p>	  	<p>1:30pm – 4:00 pm</p>
<p>End of Conference</p>	<p>All Participants</p>	<p>4:00 pm</p>