EARTH OBSERVATIONS AND IGNITION INVESTIGATION

Digital Tools in Action: Streamlining Wildfire Origin and Cause Investigations

Mark Regan¹, Jesse Sprague²

¹ Echospectra, Arcadia OK, mark@echospectra.com ² Echospectra, Roanoke TX, USA, jesse@echospectra.com

SHORT BIO(S)

Mark Regan – With over 35 years dedicated to fire investigation, fire risk reduction, and disaster management, Mark Regan has consistently enhanced community safety and investigative methodologies through innovative strategies and technology integration. As a seasoned investigator, Fire Marshal, and Fire Chief, Mark has led groundbreaking wildfire mitigation initiatives and extensive Origin and Cause (O&C) investigations, establishing industry benchmarks for scientifically defensible and legally robust processes.

Jesse Sprague – Founder and CEO of Echospectra, Jesse is a geospatial data scientist and technology leader with expertise in developing advanced mobile and collaborative solutions. His focus on digital transformation significantly optimizes investigative and compliance processes in fire management, emphasizing efficiency, audit readiness, and scientific rigor.

WORKSHOP DESCRIPTION

Objective/Goals:

This workshop aims to empower wildfire and structural fire investigators through hands-on experience with advanced digital tools designed to streamline Origin and Cause investigations. It highlights the critical importance of scientifically defensible documentation for both legal integrity and scientific research, enhancing overall investigative quality and efficiency.

Content:

Participants will explore Echospectra's cutting-edge mobile application, demonstrating how to systematically document fire indicators according to National Wildfire Coordinating Group NWGC standards. Interactive sessions will guide participants through:

- · Efficient indicator mapping and real-time data sharing;
- Best practices for maintaining detailed, defensible audit trails;
- Techniques for fostering cross-agency collaboration and data standardization;
- Methods for ensuring replicability and scientific validity of collected data.

Activities:

- Live application demonstrations using simulated fire scenarios;
- Participant-driven hands-on exercises to practice and evaluate investigative workflows;
- Interactive case-study analyses highlighting the effectiveness of the application in real-world scenarios;
- Round-table discussions to address challenges, share best practices, and refine investigative methodologies collaboratively.

More information

Length of the workshop:	3 hours
Number of participants*:	Minimum (Minimum: 10 / Maximum: 30* *soft numbers, we are fine with more or less
Special facility needs:	Participants will need iPhones or iPads to use the app. We will have 5 spare iPads available for anyone without a device.
	Mobile or Internet access to set up each user account – after registration the app is fully offline compliant.
	We will provide WIC25 attendees with 3 months' free access and a lifetime discount on subscription pricing.

^{*} Workshops with fewer attendees than the minimum number may be canceled at the discretion of the conference organizers.