

Draft Agenda

Tuesday, March 20, 2019

Morning Opening Session: 8:30AM – 12:30PM

8:30am – 9:00am Welcome
Keynote Speakers (TBD)

9:00am – 9:40am Opening Presentations – Science perspective on wildfire trends

9:45am – 10:30am Opening Discussion – Operational experience over last two fire seasons

10:30am – 11:00am Networking Break

11:00am – 12:30pm Opening Panel – Lessons learned in San Diego
Setting the stage for the afternoon sessions. How San Diego has been able to advance and apply the science? How we can set the stage for expanding that statewide?

12:30pm – 2:00pm Lunch

Breakout Sessions: 2:00PM – 5:00PM

Track 1: Understanding Wildfire Potential - Forecasting threat and modeling behavior

2:00pm – 2:45pm: Lightning Presentations (10 min)

- Climate science and wildfire forecast models
- Supercomputing application for fire modeling and vegetation monitoring using satellites
- Fire weather forecasting and weather modeling solutions

2:45pm – 3:45pm: Panel 1A

Forecasting Wildfire Potential – How do we estimate fire threat potential? Discussion of fire prediction science and enabling technology

Discuss science and technology needed for advanced wildfire forecasting. If we were to develop a state-wide Fire-Threat Potential Index (FPI), how would we do it? What we can learn from hurricane & tornado prediction and warning systems? How to we account for regional differences in threat drivers? Discuss what data inputs are needed and scientific gaps (e.g. understanding of fuels and estimating live-fuels moisture).

3:45pm – 4:00pm: Break

4:00pm – 5:00pm: Panel 1B

Data Driven Fire Modeling - How can we develop fast and reliable fire modeling tools to support all fire departments and emergency responders across the state?

It is important to collect and use the best data available. Fire modeling experts and fire community discuss modeling tools that are needed and the technological capabilities that exist. Include discussion of uses for firefighting, resource staging, evacuations and planning/executing controlled burns. How can data be collected and made available in real time? What is the technology infrastructure needed to make this possible?

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Track 2: Where is the fire? Improving situational awareness and alerts

2:00pm – 2:45pm: Lightning Presentations (10 minutes each)

- Using Data to Inform Operational Decision-Making
- Creating a Common Understanding
- Integration 2.0: Using AI/ML to Save the Whole Community
- Using Satellites and Advanced Analytics to Track Fires

2:45pm – 3:45pm: Panel 2A

Using signals intelligence for wildfire threat detection, analysis, and response

Signals Intelligence, such as satellite data, remote sensors, social media, and real-time feeds, can help with threat detection, impact analysis, resource allocation, and other response operational tactics. What are the most promising uses for these data sets, such as satellite and ground-based sensors? What are some of the enabling technologies that are needed to make use of these data? How do we aggregate these data sets? What needs to be done by the public sector vs. academia vs. private sector?

3:45pm – 4:00pm: Break

4:00pm – 5:00pm: Panel 2B

Understanding the Situation: Using Technology to Improve Operational Decision-making and execute effective evacuations. Discuss needs and solutions for making information available to first responders and the public.

Developing real-time fire maps with all the core operational data sets is a challenge. What are challenges and opportunities when it comes to real-time situational awareness? How do we use technology to establish a common understanding of the situation? How can new technologies, like artificial intelligence and machine learning, improve outcomes for people with disabilities or access and functional needs?

Networking Reception: 5PM - 6:30PM

Wednesday, March 21, 2019

8:30am – 8:45am Welcome Remarks

8:45am – 9:30am Opening Discussion: Lessons Learned from Australia

What can we learn from Australia's experience, specifically the weather stations, weather modeling, situational awareness and how these tools are being used by utility in collaboration with the fire agencies and local governments?

Breakout Sessions: 9:45AM – 12:30PM

Track 3: Turning data into information - best practices in data gathering and analytics for utilities

9:45am – 10:15am: Lightning Presentations (10 mins each)

- Machine learning on daily satellite imagery – WIFIRE
- TBD
- TBD

10:15am – 11:15am: Panel 3A

Aerial Patrols: Best practices in data gathering and analysis for utility vegetation management and asset integrity

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Aerial patrols include aircraft, helicopters and unmanned aerial vehicles (a.k.a. drones). Different types of aircrafts can be equipped with various types of sensors (HD cameras, LiDAR, etc.). This panel will explore the current state of data-gathering technologies and how they can be applied to various use cases (vegetation management, asset monitoring, compliance monitoring etc.)

11:15am – 11:30am: Break

11:30am – 12:30pm: Panel 3B

Big Data, Advanced Analytics and Machine Learning

Fire weather forecasting, fire modeling, utility vegetation management and utility asset management all have one thing in common – need to process and analyze a lot of data. Aerial patrols, data from sensors, information in utility work and asset management systems – there are multiple potential sources of data and ability to gather more. How can we use multiple data sources paired with advanced data analytics to perform risk assessment, predict asset failure and identify vegetation threats and prevent fires? How can big data, advanced analytics, machine learning and other technologies help turn data into actionable information to prevent utility-caused ignitions of wildfires?

Track 4: Preventing Ignition from Utility Infrastructure

9:45am – 10:15am: Lightning Presentations (10 mins each)

- Coated conductors – lessons learned from Australia and East Coast utilities
- Sensors for real-time monitoring of infrastructure
- TBD

10:15am – 11:15am: Panel 4A

Identifying issues before ignition occurs – innovation in sensors, early fault detection and infrastructure hardening

The goal is to develop capabilities to prevent ignitions from utility infrastructure before they occur. The panel will explore the various sensors, fault detection and other ignition-prevention technologies and promising opportunities for research.

11:15am – 11:30am: Break

11:30am – 12:30pm: Panel 4B

Rethinking utility vegetation management - building risk-based and performance driven programs

Utilities need to use rigorous analytical methods to assess vegetation risks, identify mitigation activities and measure performance. Inspection and pruning cycles must become risk-driven, not schedule-driven.

12:30pm – 1:30pm: Lunch

Closing Session: 1:30PM – 3:30PM - Best practices in establishing private-public-academic partnerships

1:30pm – 2:00pm: Closing Lightning Presentations (Three presentations of 10 mins each)

- TBD

2:00pm – 3:00pm: Closing Panel

The path forward -- incorporating technology innovation into policy

Discuss how we can move forward on the ideas discussed during the Summit. What are the best practices for bringing technology innovation into policy? How do we make sure that technology solutions yield promised results? How can we keep this dialogue going and have access to thought leaders as different solutions to the wildfire challenge are being developed and put in place?

3:00pm – 3:30pm: Closing Remarks