

# Wildland Fire Policy and Innovation in Colorado

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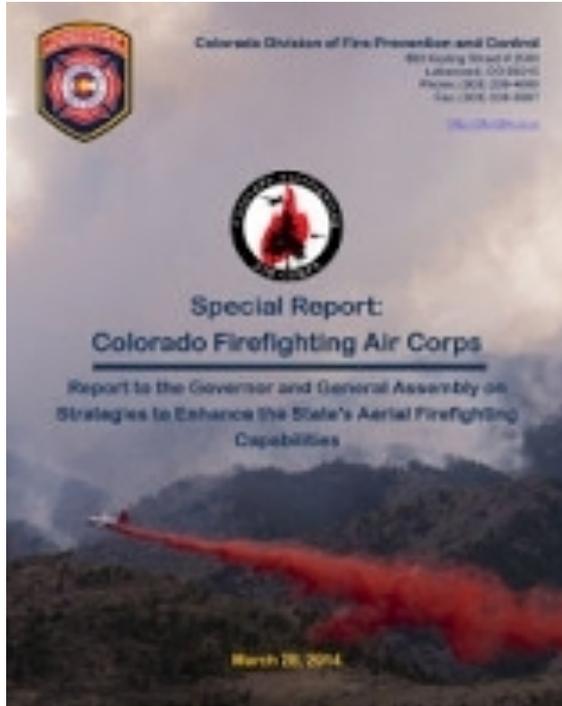
# Wildland Fire in Colorado



- Four Mile (2010)
  - 6,200 Acres
  - 169 Homes
- Waldo Canyon (2012)
  - 18,247 Acres
  - 346 Homes
- High Park (2012)
  - 87,284 Acres
  - 259 Homes
- Black Forest (2013)
  - 14,280 Acres
  - 488 Homes
- Total Insurance Cost  
\$1,204,900,000



# Wildland Fire Legislation



- Senate Bill 13-245
  - Established Colorado Firefighting Air Corps
- Senate Bill 14-164
  - Amended 13-245
  - Acquire or contract for aerial firefighting assets
  - Set up Center of Excellence
- House Bill 15-1129
  - Develop a science-based wildland fire prediction and decision support system

# Rapid Attack Capabilities



- Heli-Tankers
  - Type II and Type III helicopters with helitack crews
  - Provide quick reaction suppression to small fires in remote areas of Colorado wilderness
- Single-Engine Air Tankers
  - Pre-positioned throughout the state based on risk assessment



# The Multi-Mission Aircraft



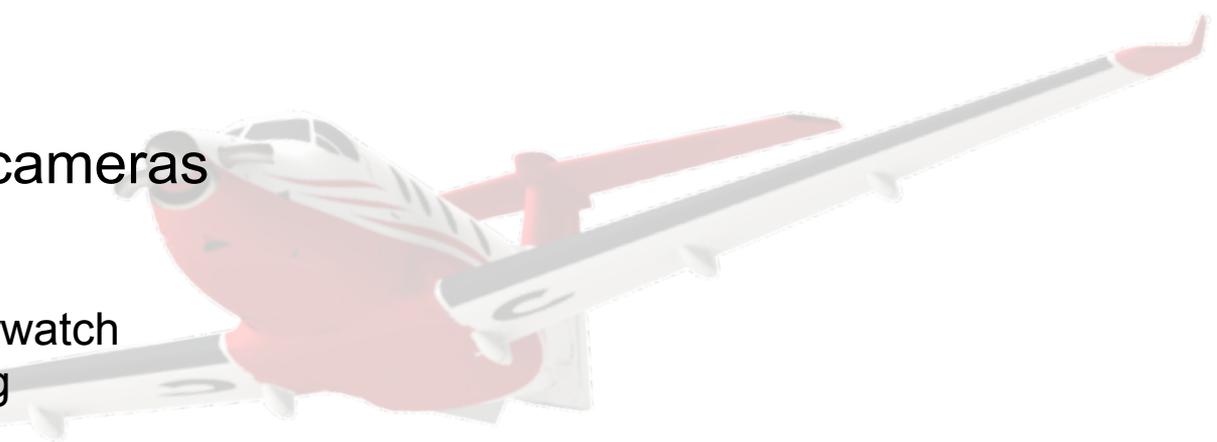
# The Multi-Mission Aircraft



- Pilatus PC-12 aircraft
  - FAA certified airframe and operations
  - Pressurized, high-altitude, affordable, and long endurance
  - Night operations
- Systems installed:
  - Color and thermal cameras
    - Fire detection
    - Fire mapping
    - Firefighter safety overwatch
    - Evacuation monitoring
  - Broadband internet
    - CO-WIMS access
    - Direct delivery of imagery and surveillance information
    - Internet chat, real-time video, and email
  - Data and image processing
  - Interoperable voice radios
- Minimum crew of two
  - Pilot and Mission System Operator (MSO)

[Small Fire  
Detection](#)

[Fire Behavior](#)





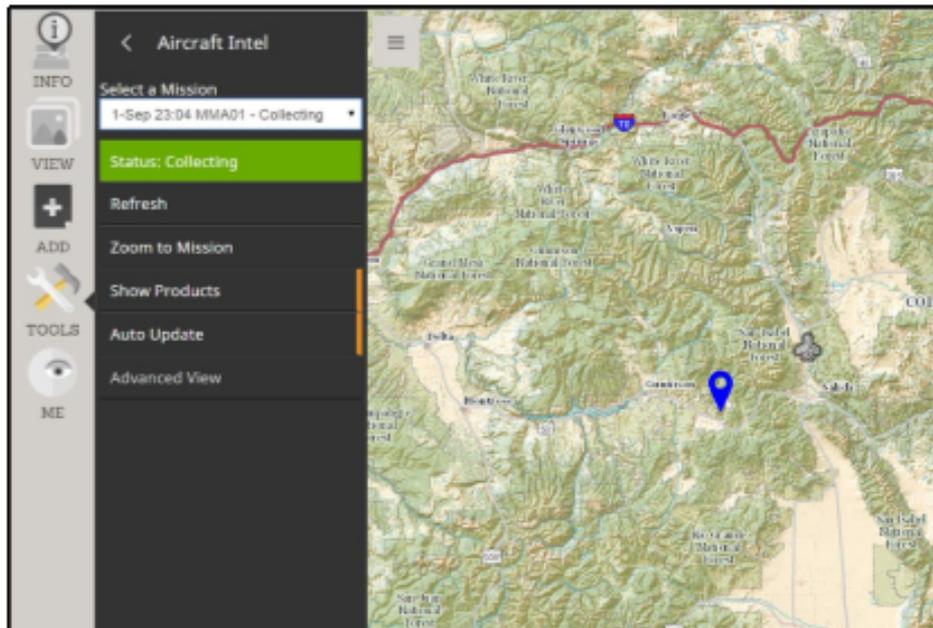
# What is CO-WIMS?

CO-WIMS is a web-based decision support system designed to support wildfire operations decision-making in Colorado. It provides an up-to-date picture of the wildfire situation across the state and near-real-time photos and heat (IR) imagery from Colorado's Multi-Mission Aircraft on wildfire incidents in Colorado.

## Common Operating Picture

To provide decision support to Colorado interagency wildfire resources, CO-WIMS brings you a common operating picture of the wildfire situation by providing access to:

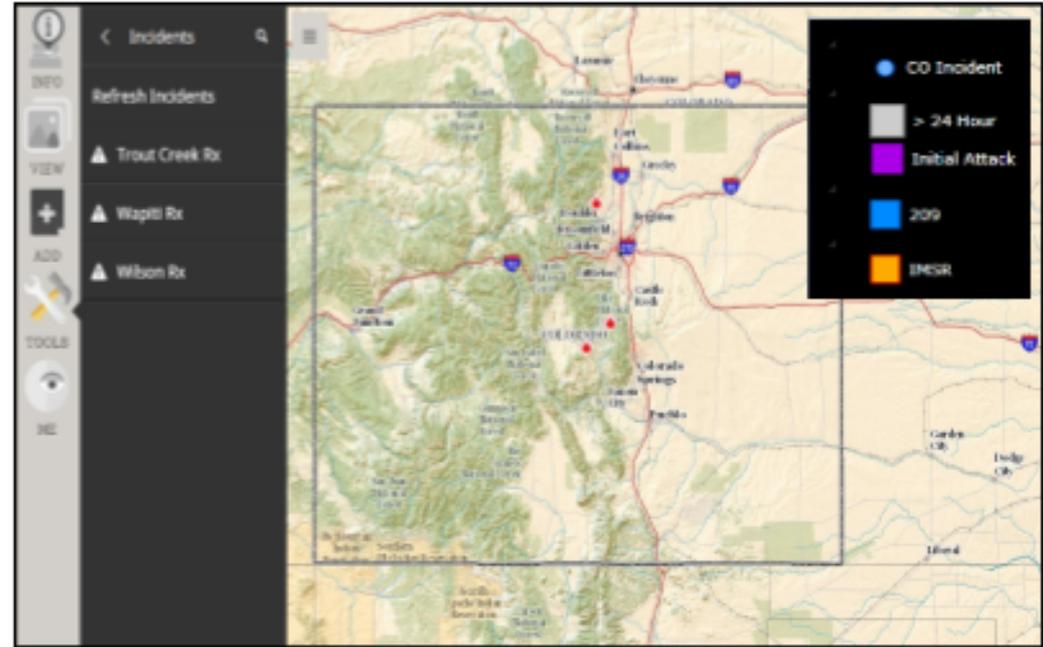
- Mission status and near-real-time aircraft imagery from Colorado's Multi-Mission Aircraft (MMA).



# CO-WIMS shows us all the...



- Location of active incidents:
  - ◇ Incidents being tracked by the DFPC.
  - ◇ Federal incidents of national significance and those reported by local federal dispatch centers.
- Location of active national fire resources.
- Federal and local jurisdiction boundaries.
- Colorado Risk Assessments, including Special Risk.
- Weather and fuels data for interpreting potential fire behavior.



# Center of Excellence for Advanced Technology Aerial Firefighting

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- Created by SB 14-164
- Mission Statement: To protect the citizens, land, and resources in Colorado, the Center of Excellence will research, test, and evaluate existing and new technologies that support sustainable, effective, and efficient aerial firefighting capabilities.
- Initial Research Projects
  - Direct Attack on Fire at Night
  - Sustainable Contract Models
  - Spot Trackers
  - Decision Support System

# House Bill 15-1129 Decision Support System

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- Center of Excellence will work with organization to develop a Decision Support System that is science-based and able to:
  - Improve the ability to predict wildland fire behavior
  - Improve the safety and efficiency of wildland firefighting
  - Improve flight operations of the CFAC by providing aviation hazard information
  - Enhance mechanisms for communicating wildland fire hazard information to users
  - Integrate wildland fire behavior information with prediction technologies into information infrastructures that serve all Colorado end users