

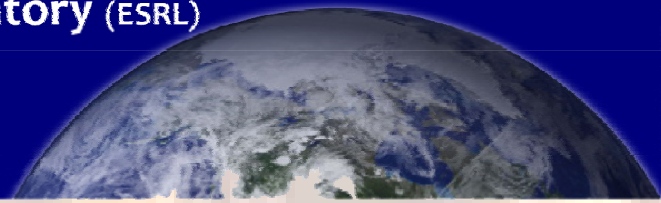


Earth System Research Laboratory (ESRL)

Global Systems Division (GSD)

Putting tools in the hands of users

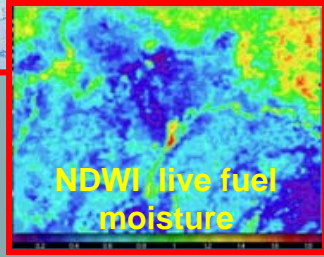
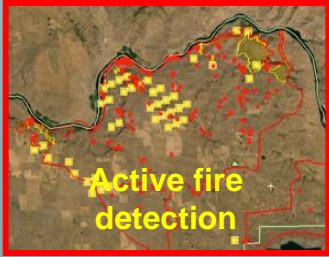
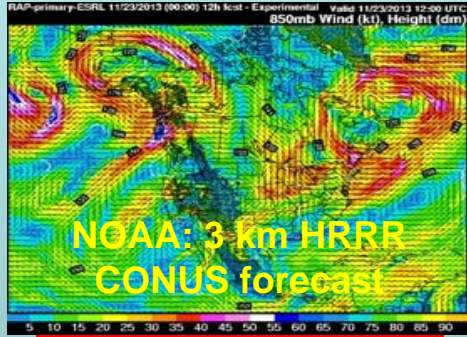
Advancing Fire Weather Research



Fire Weather Research to Application

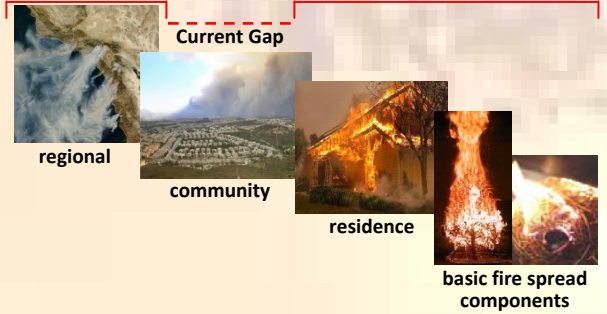
NOAA Data Used for Coupled Fire Weather/Fire Behavior Model

Atmospheric Forecast Data

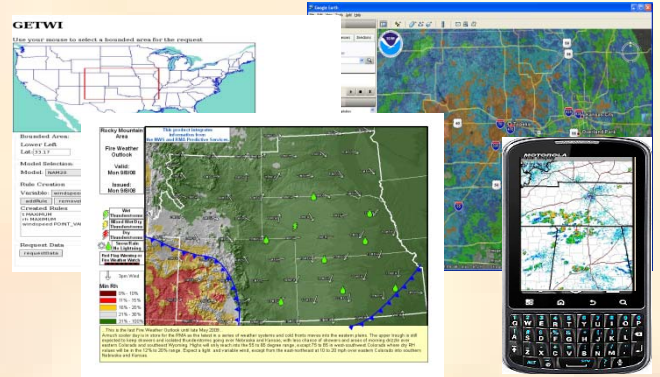


Downscaled Modeling

NOAA Fire Weather 900 km (domain) ~8 km (grid cell) NIST Fire Behavior (WFDS) 1 km (domain) ~1 m (grid cell)

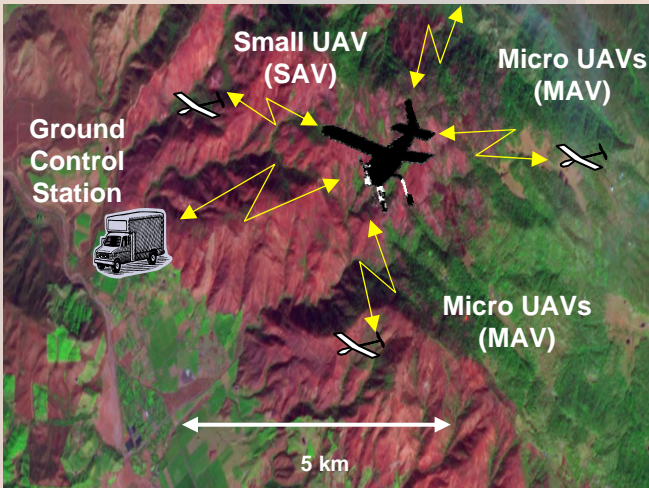


Forecast Decision Support Systems



Joint Research, Planning, and Execution

NSF Center for Unmanned Aircraft Systems (C-UAS)



USFS & NWS Decision Support



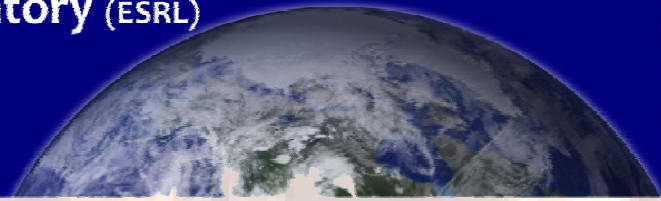


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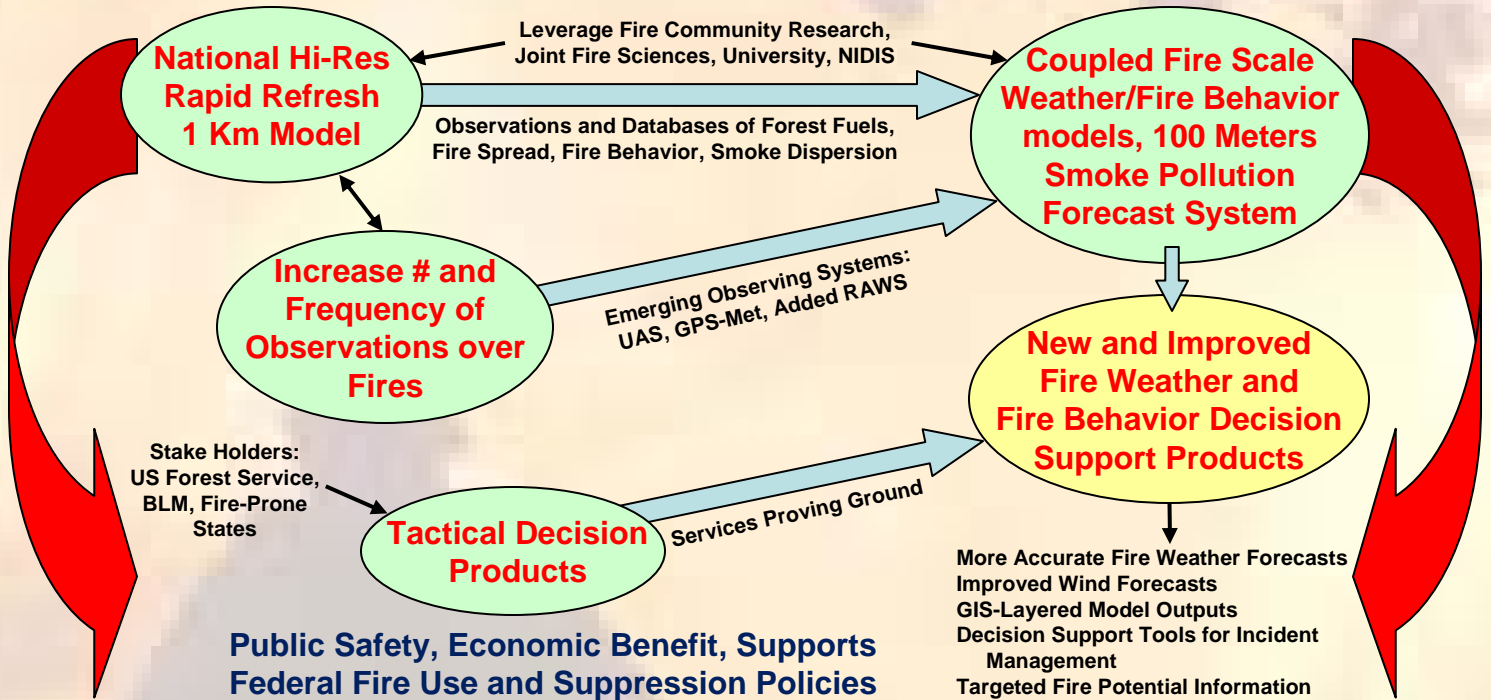
Putting tools in the hands of users

Advancing Fire Weather Research



Joint Research, Planning, and Execution – Cont.

NOAA/United States Forest Service Memorandum of Understanding August, 2012
NOAA/USFS Fire Weather Collaboration: Improving Essential Services



Public Safety, Economic Benefit, Supports Federal Fire Use and Suppression Policies

More Accurate Fire Weather Forecasts
Improved Wind Forecasts
GIS-Layered Model Outputs
Decision Support Tools for Incident Management
Targeted Fire Potential Information

Research Benefits and Impacts

Integrated Fire Fighter Operations

Fire Fighter Operational Impacts

Fire Weather Operations of the Future

- Fire Mapping
- Communications
- Fire Scene Weather Obs

Model Output: Fire Scale Wind Analysis (500 meters), Coupled Fire Weather/Fire Behavior/Smoke Forecasts

Intelligence Assistant
AWIPS II Thin Client
Decision Support Tools

Model Products: Hourly Fire Scale Wind, Temp, Smoke Plume and Dispersion, RH, Critical Scene Wind Profiles, Uncertainty Guidance

IMET Briefing
Incident Command
Fire Analyst (FBAN)
Fire Fighter Crew Chiefs

- Fire Perimeter Forecast Map
- GIS Smoke Dispersion Map
- Severe Weather Impacts Map

- Improved Decision Support
- Extended Evacuation Lead Times
- Improved Fire Fighter Safety
- Resource Allocation Time and Money Saved

For Further Information, Contact:

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Or Visit:

<http://www.nifc.gov/>
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