



# Subcommittee on Disaster Reduction Wildland Fire S&T Task Force Workshop

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Department of Interior  
Main Interior Building – North Penthouse Room  
Washington, DC, June 17 -19, 2014

# Our mission

**“To sustain the health, diversity, and productivity of our nation’s forests and grasslands to meet the needs of present and future generations.”**



# USDA Forest Service Snapshot

- ❖ Manages 193 million acres of forests and grasslands in 44 States and territories and provides support to private forest land owners for 400 million acres.
- ❖ Creates and deploys science into use
- ❖ FS programs restored or enhanced more than 4.7 million acres of public and private forest lands in FY 2013, making them more resilient to the effects of wildfire



Flathead National Forest, Montana

# Who we are

- ❖ Research has been part of the Forest Service mission since the agency's inception in 1905
- ❖ We are the world's largest forestry research agency
- ❖ Well renowned for the quality of our research



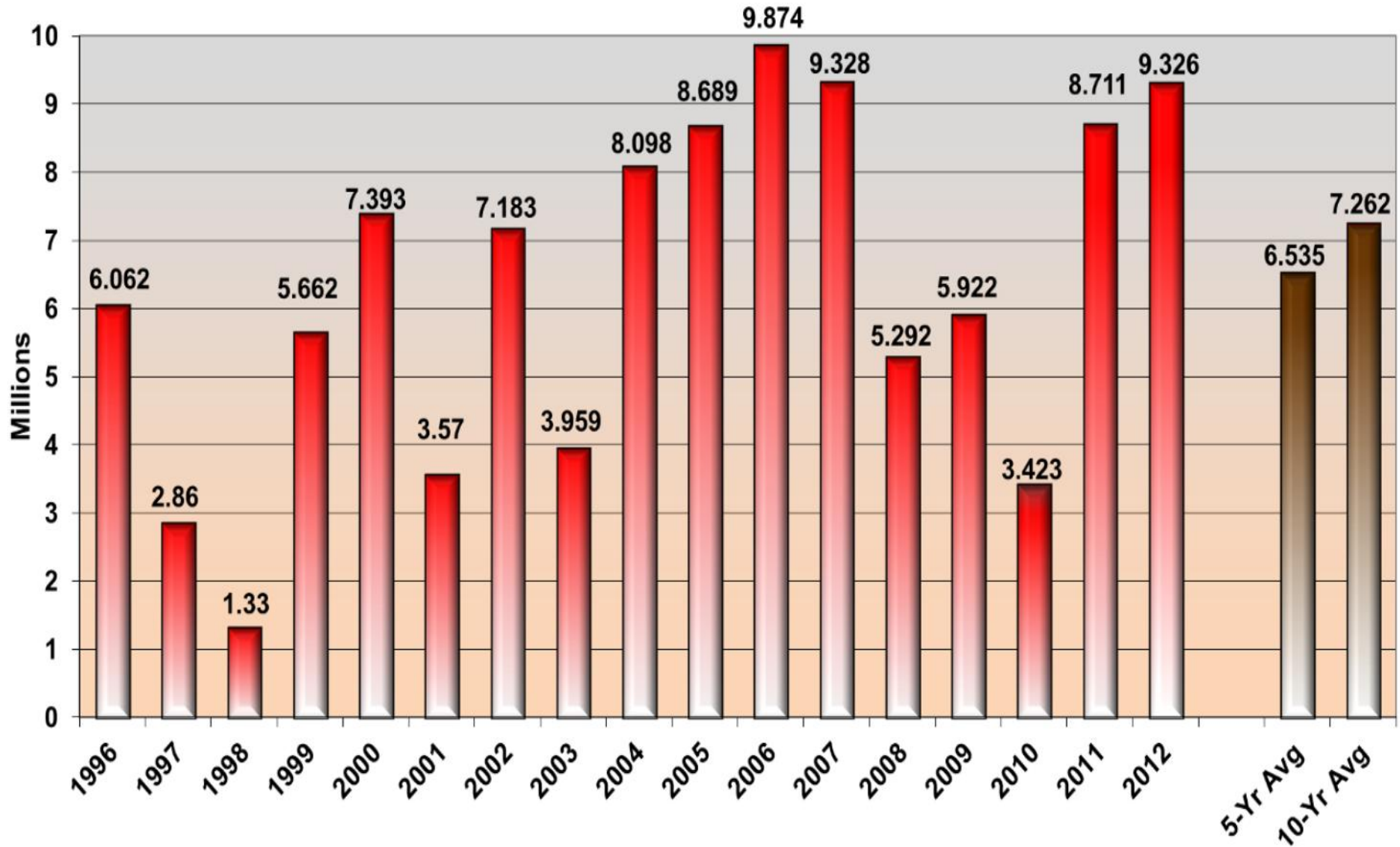
- ❖ We work with managers of natural resources of all kinds
- ❖ We conduct both foundational as well as applied research
- ❖ We carry out technology transfer



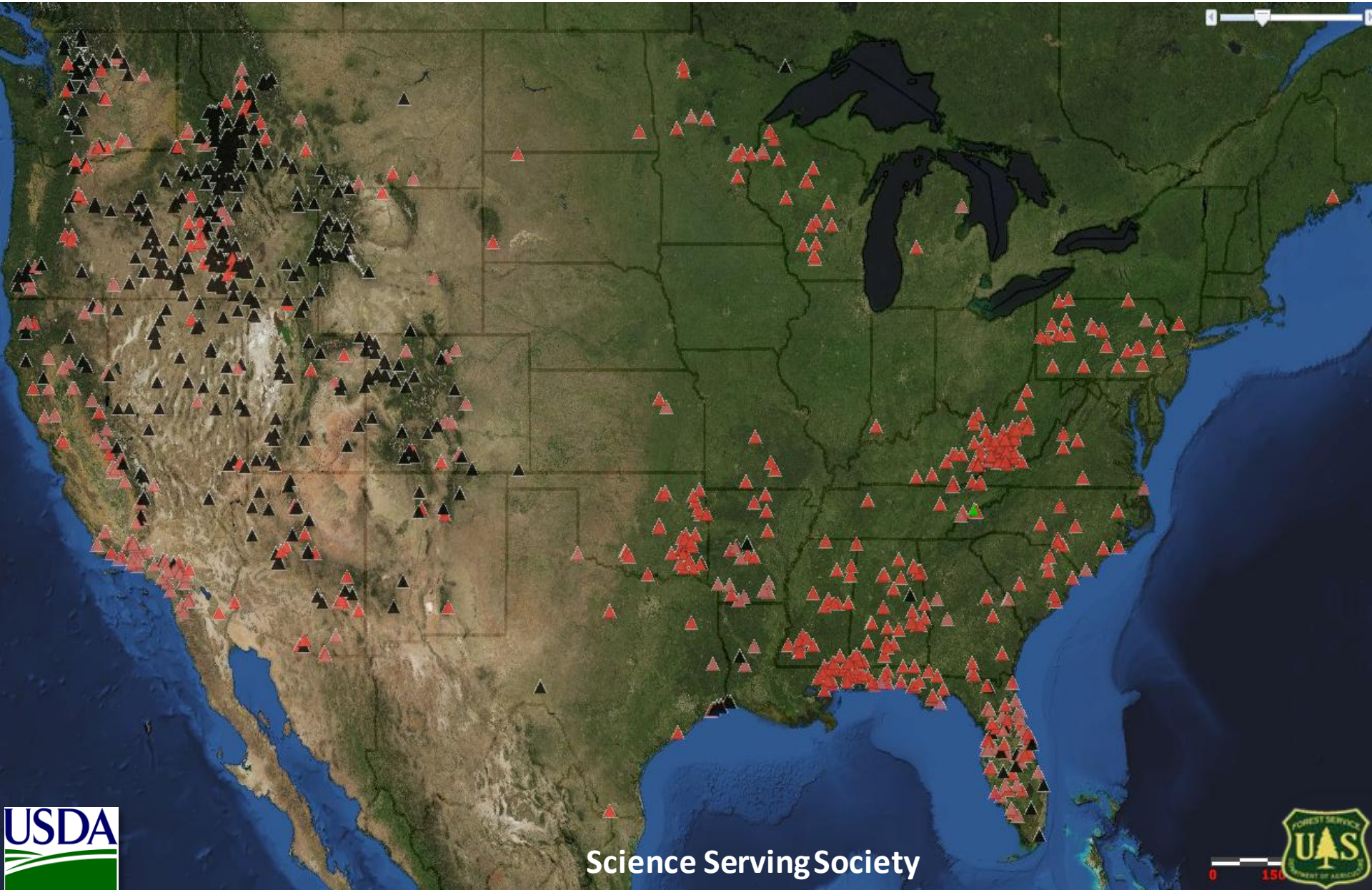
# Research & Development Capacity and Assets

- ❖ Approximately 500 permanent scientists
- ❖ 77 field laboratories in 67 locations
- ❖ Long-term research on 83 experimental forests and ranges,
- ❖ 370 research natural areas
- ❖ Databases of continuous monitoring for water, meteorology, soil productivity, Forest stands, silvicultural treatments, insects and diseases with some of them covering 100 years.

# Annual Number of Acres Nationally



# 2013 – Wildfires





# Forest Service Fire R&D

❖ 5 Research Stations, 3 Fire Labs, 1 Lab and 1 Institute

❖ Fundamental and applied research

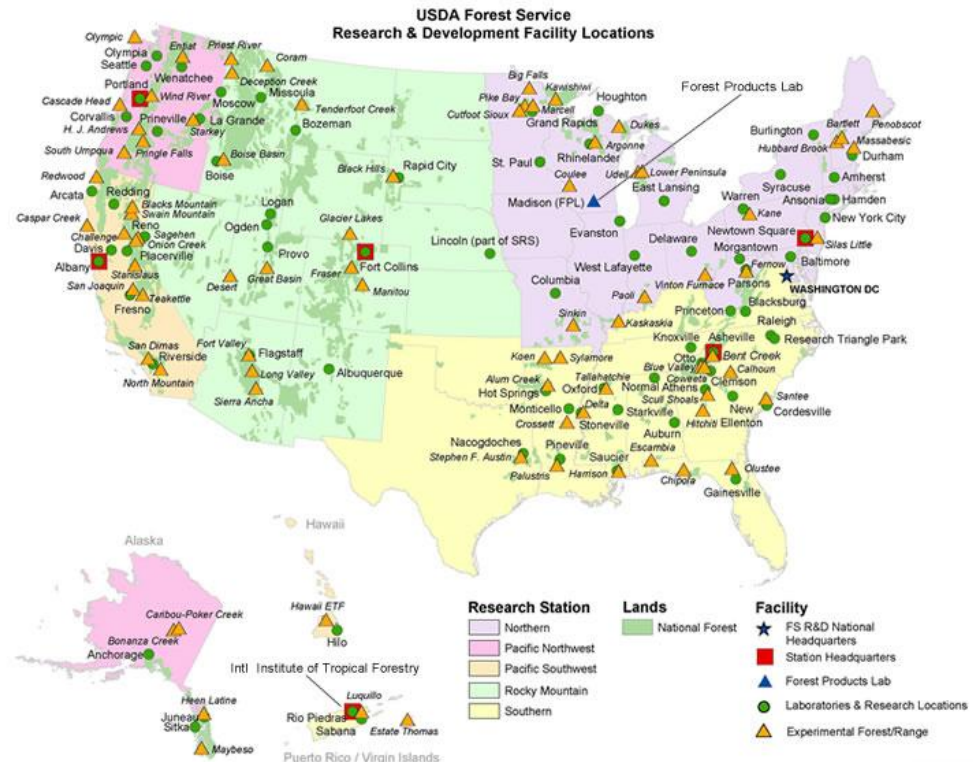
❖ Long history of success

➤ Fire behavior prediction

➤ Fire effects

➤ Wildland fire risk

➤ Technology for response





# FS Fire Research—Background

The current Forest Service fire R&D program is made up of three components:

- 🔥 Joint Fire Science Program (JFSP) is a collaborative FS/DOI program, started in 1998, that competitively funds priority R&D, primarily to support fuels management and fire-related restoration and rehabilitation.
- 🔥 National Fire Plan has supported NFP R&D since 2001 in carrying out R&D in support of interagency fire management needs.
- 🔥 FS R&D funding is the core of fire research and supports permanent scientific staff and facilities, as well as maintaining a base of long-term research and collaborations.

*R&D partners in FS and DOI also support moving science into application (e.g LANDFIRE; Fire RD&A in Boise)*

# Forest Service Fire And Fuels R&D Strategy For The Future

## Three Strategic Goals

Research: Advance the biological, physical, social, economic, and ecological sciences.

Science Application: Develop and facilitate use of knowledge and tools that policy makers, practitioners, and communities use to plan for their jobs, to do their jobs, and learn from what they have done.

Leadership: Provide leadership for collaborative, coordinated, responsive, and forward looking wildland fire-related R&D for all ownerships.

# FS Fire R&D highlights

- Working with practitioners to facilitate applications and identify needs.
- Fundamental science describing the ecological, social, and economic factors relating to wildland fire and land management.
- Conducting research to improve theoretical and practical understanding and modeling of fire behavior.
- Quantifying and monitoring the effects of fuel treatment alternatives.
- Integrating current knowledge and models into new applications for risk analysis and decision support.
- Collaborative approach across FS Research Stations and with partners from other agencies and universities.

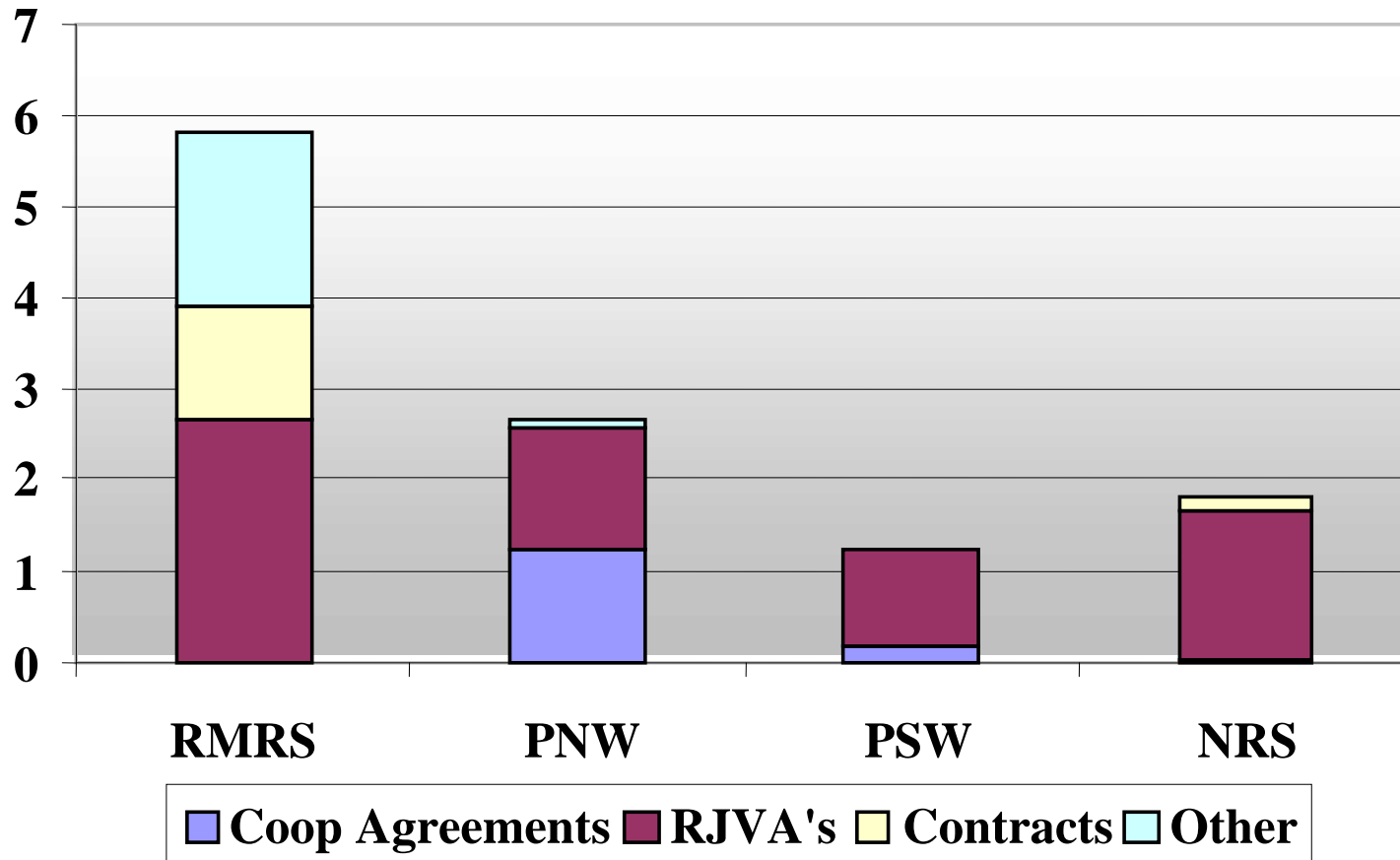


# WILDLAND FIRE COHESIVE STRATEGY

- ❖ Eastern Threat Center scientists lead and serve on a science and analysis team working with regional strategy committees to evaluate the relative consequences of alternative courses of action in wildland fire management.
- ❖ This trade-off analysis will provide important information that can be used to guide the national strategy.
- ❖ This is part of ongoing efforts to reduce human and ecological losses from wildfire, federal agencies responsible for wildland fire management are working with states, tribes, and other interested publics to develop a National Cohesive Wildland Fire Management Strategy.

# Partnerships

## Outgoing Fire R&D Funding (\$ millions)



# Science in support of better decisions

- ❖ Fire management planning
- ❖ Fuel management and restoration
- ❖ Appropriate Management Response to fire incidents
- ❖ Planning and implementing post fire treatments




# Questions?




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