



# U.S. Forest Service 2015 Wildfire Season Outlook

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U.S. Forest Service

Research and Development



# Overview

Current situation

Outlook for the summer

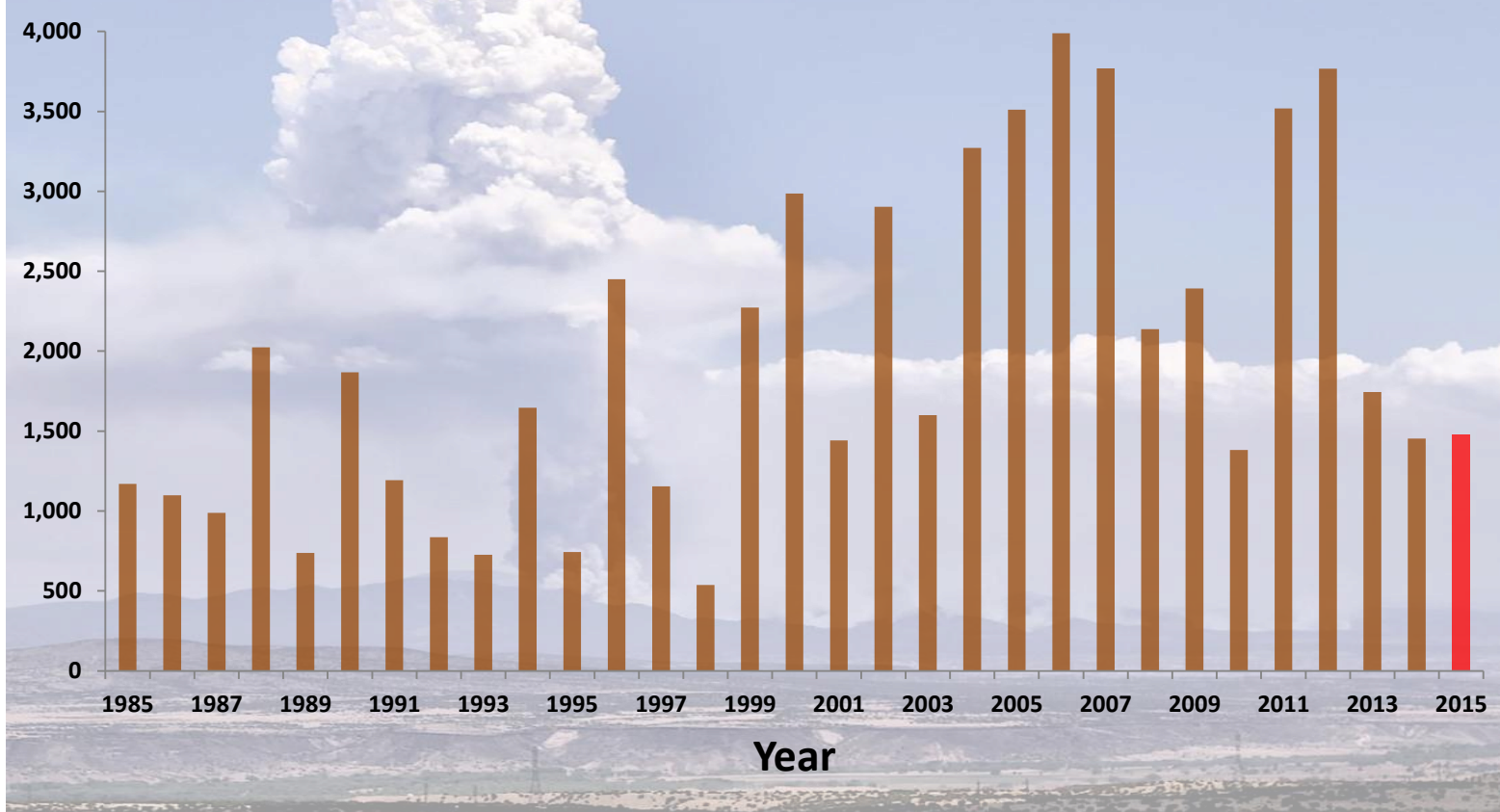
Fire science and technology task force

Some words on wildfire risk



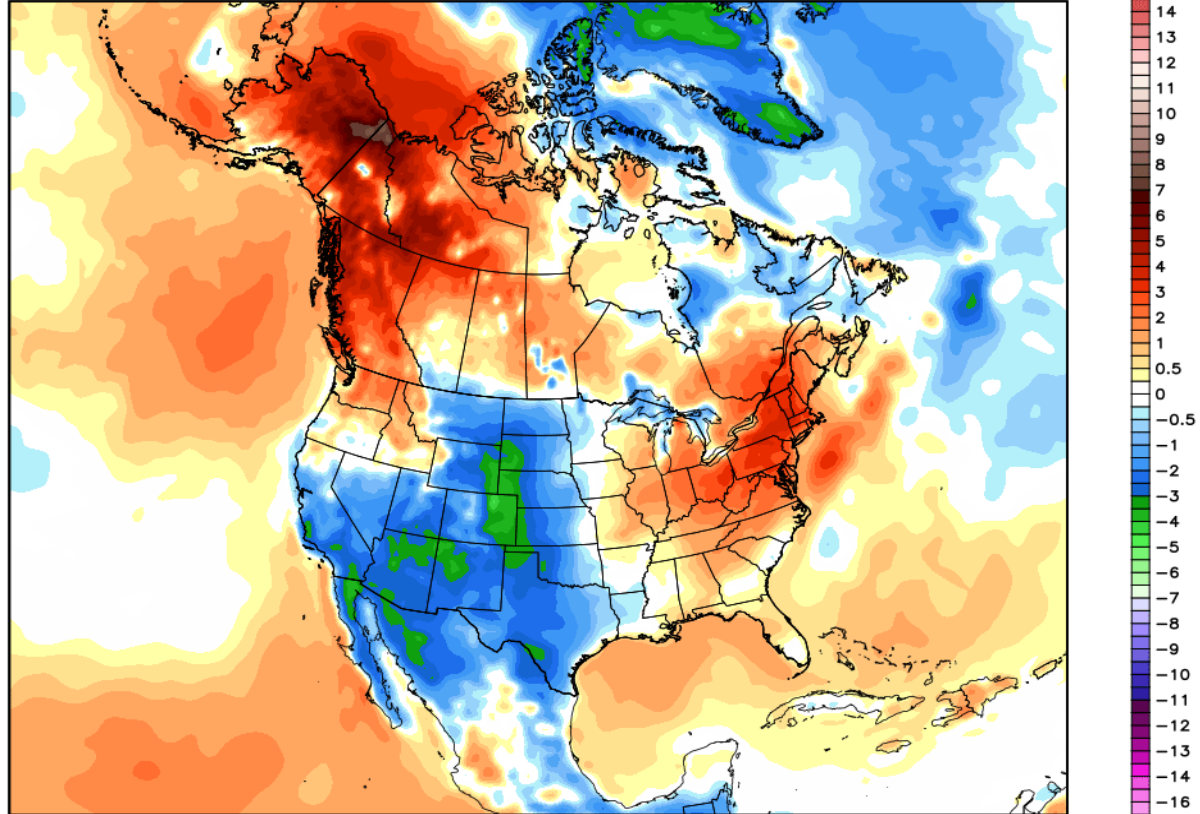


### Wildfire area burned 1985-2015 Ha/1,000





Temperature (2-meter) Anomaly [°C] 00Z01MAY2015 --> 12Z28MAY2015 | Average  
NCEP CFSv2 CONUS Anom: -0.427°C



NCEP CFSR 1981–2010 Climatology | T574 CFSv2 Analysis Grid | Ryan N. Maue | WeatherBELL



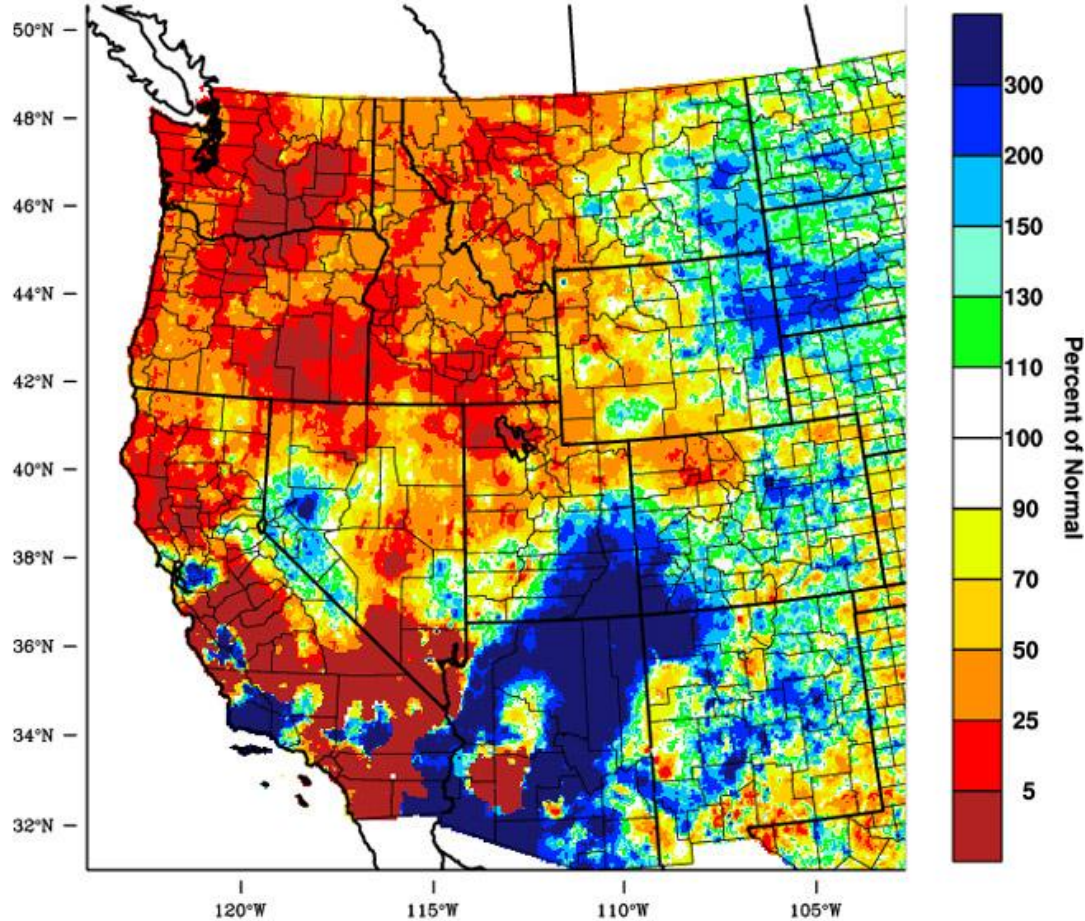
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### Western United States - Precipitation June 2015 Percent of 1981-2010 Normal



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Prelim), created 2 JUL 2015



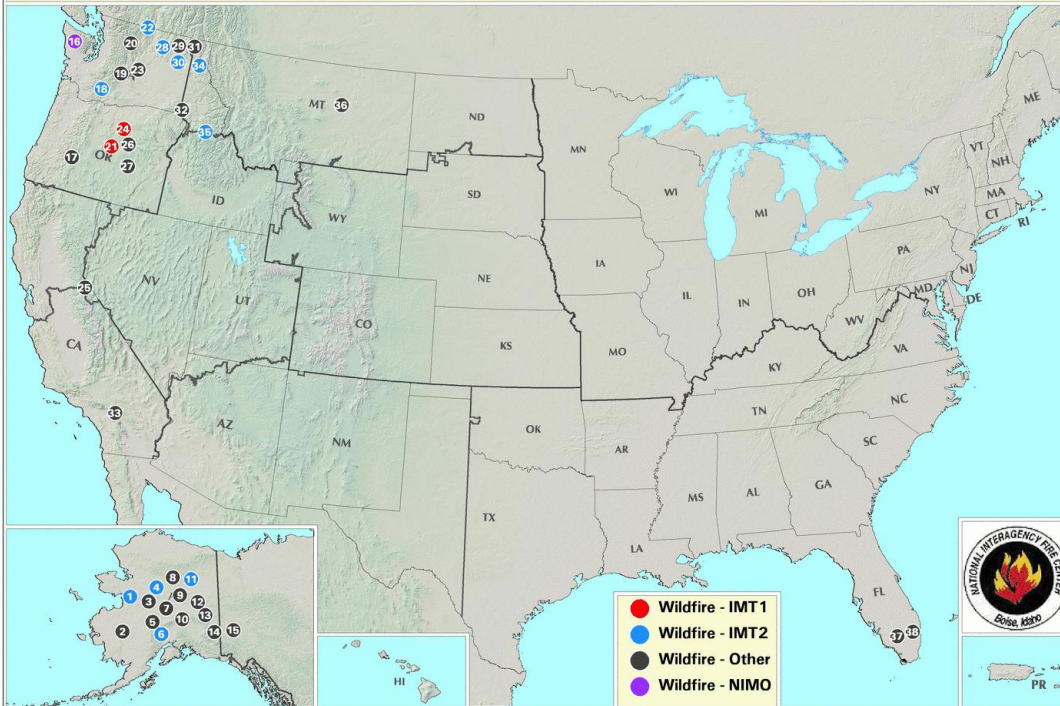
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# Current Large Incidents

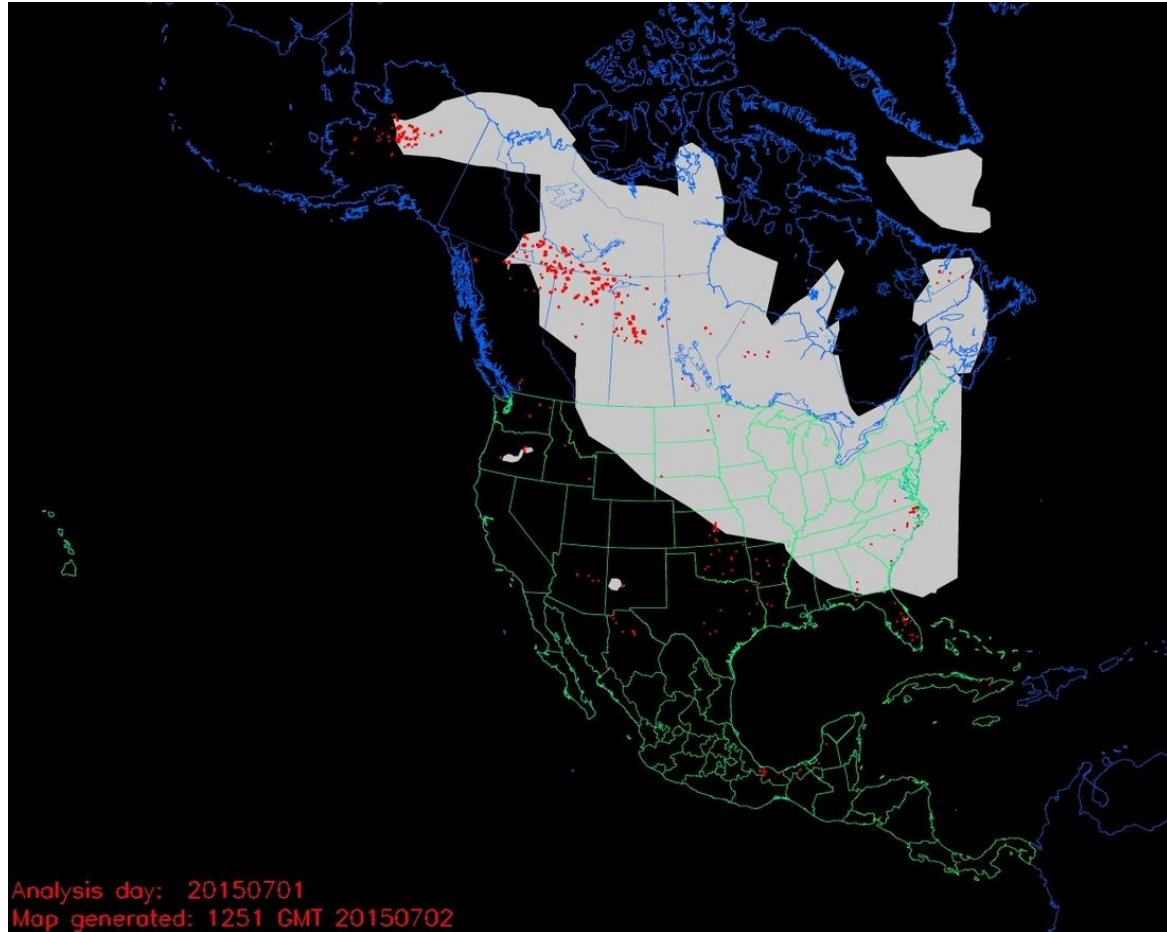
## July 08, 2015



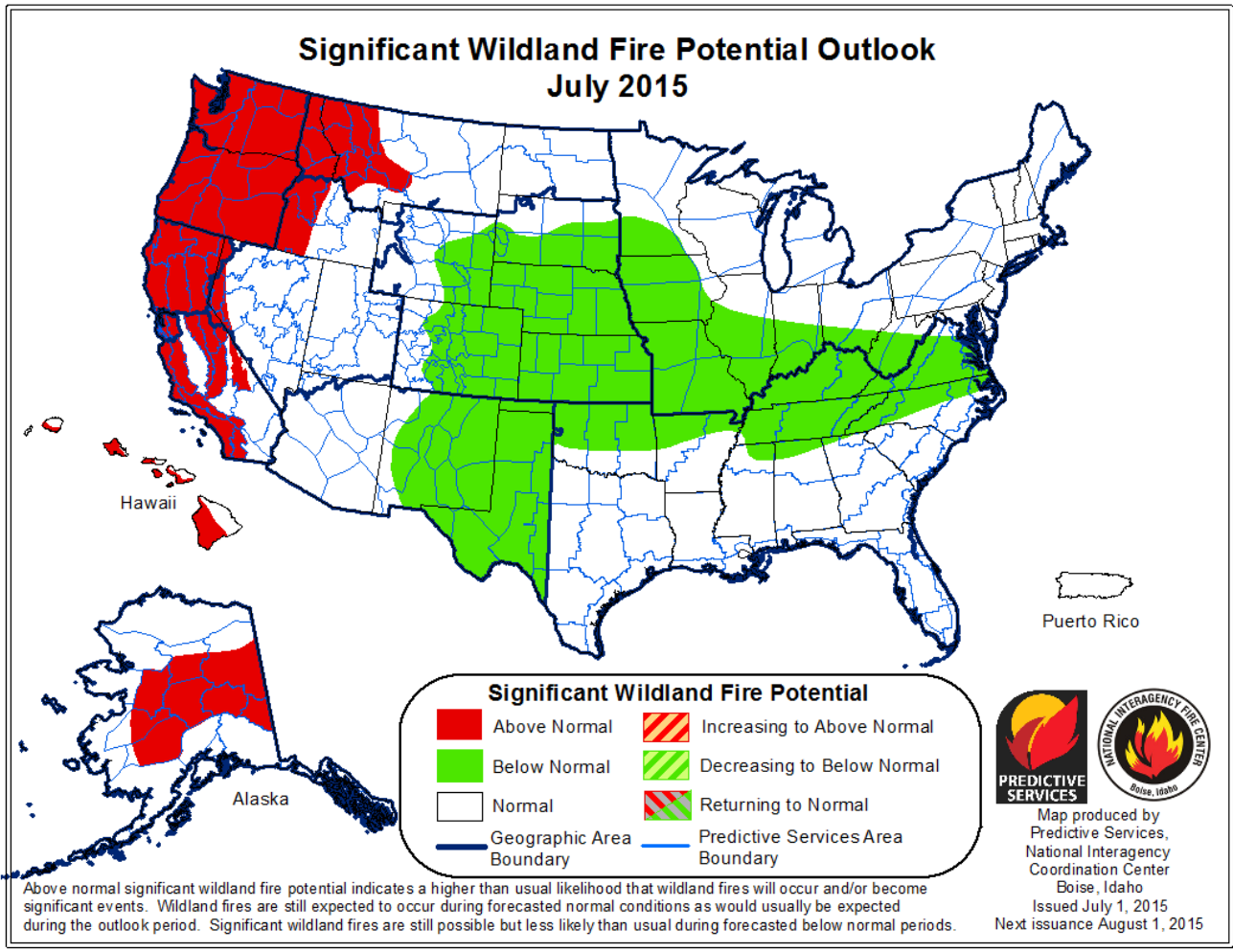
- |                      |                        |                          |                        |
|----------------------|------------------------|--------------------------|------------------------|
| 1 MIDDLE YUKON FIRES | 11 AGGIE CREEK         | 21 CORNER CREEK 0297 PR  | 31 GRANITE             |
| 2 ANIAK COMPLEX      | 12 ANACONDA CREEK      | 22 NEWBY LAKE            | 32 GILMORE GULCH       |
| 3 SEA                | 13 NENANA RIDGE        | 23 BEEZLEY HILL          | 33 LAKE                |
| 4 TANANA AREA FIRES  | 14 TETLIN HILLS        | 24 SUGAR LOAF 0268 RN    | 34 CAPE HORN           |
| 5 MUNSATLI 2         | 15 LONG LAKE           | 25 WASHINGTON            | 35 BLUE                |
| 6 BAKER              | 16 PARADISE            | 26 153 WEST FORK         | 36 ALEX CAMP ROAD FIRE |
| 7 REX COMPLEX        | 17 BUNKER HILL COMPLEX | 27 RADAR                 | 37 COW BONE 2          |
| 8 WEST FORK          | 18 HORSESHOE           | 28 TWENTY-ONE MILE GRADE | 38 CINCO #1            |
| 9 ROCK               | 19 WILLOW SPRINGS      | 29 WILLIAMS              |                        |
| 10 DEEP CREEK        | 20 WOLVERINE           | 30 231                   |                        |

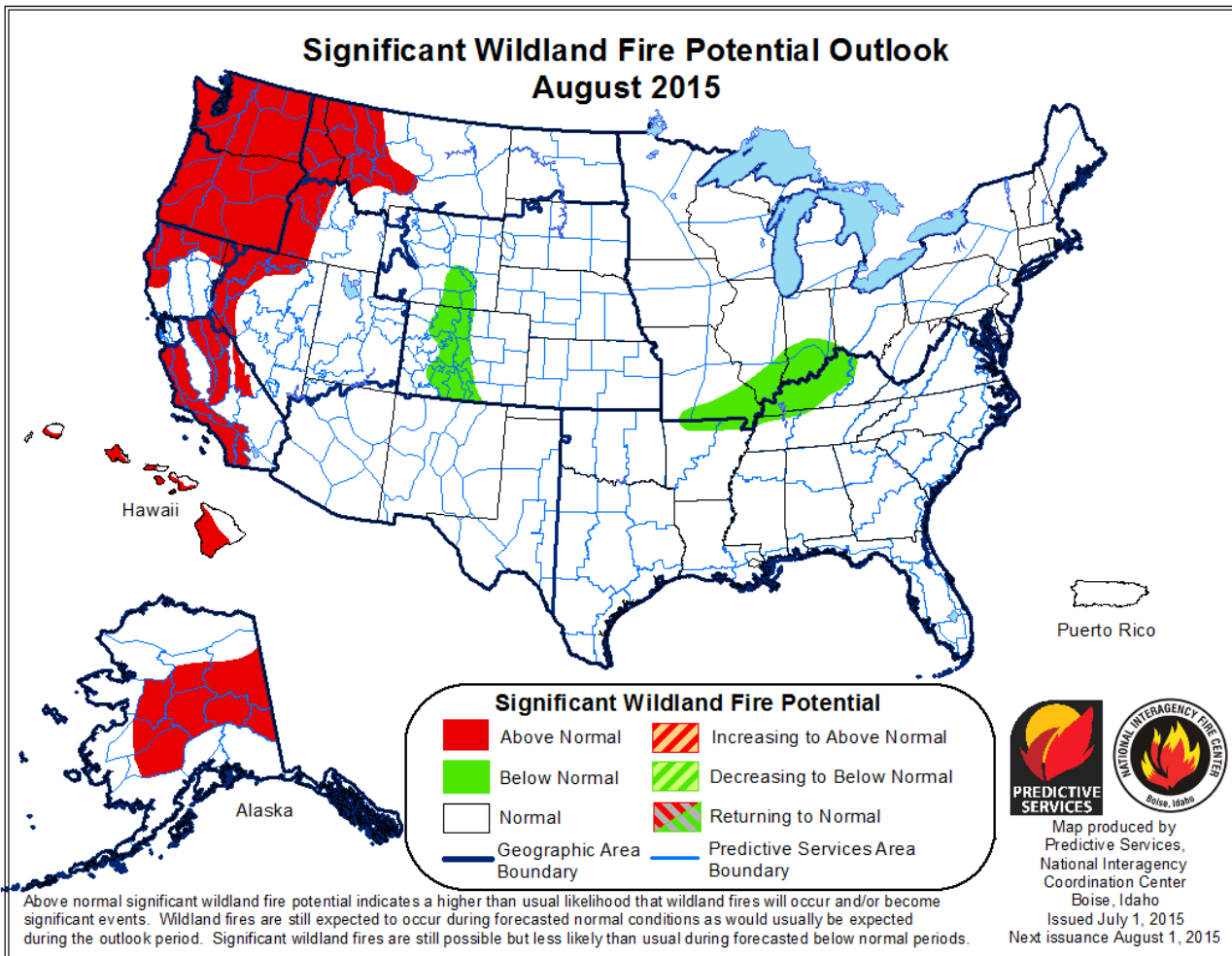


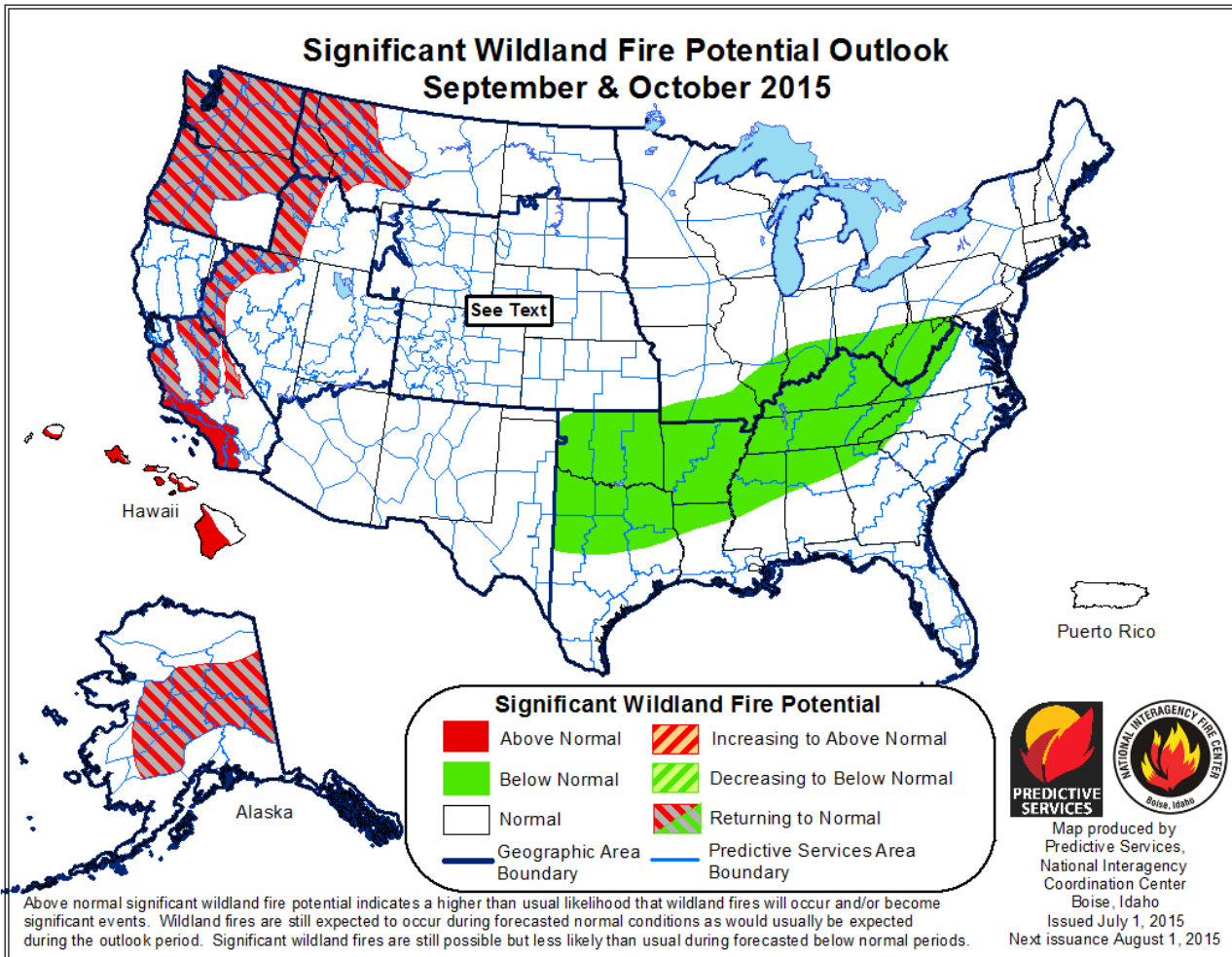
## Smoke from wildfires, July 2 2015













## Vancouver / Seattle July 5, 2015





## Paradise Fire, Olympic National Park



**Ancient forests in one of North America's wettest landscapes  
500-1,000 year Fire Return Interval**



## Sleepy Hollow Fire, Wenatchee WA





## NSTC / SDR Fire Science and Technology Task Force (2015)

### Fire science and technology across the federal government

- Roles and responsibilities
- Resource baselines (Existing programs)
- Progress on 2008 Grand Challenges for Disaster Reduction
- Evolving and emerging national challenges
- S&T gaps and opportunities



## NSTC / SDR Fire Science and Technology Task Force (2015)

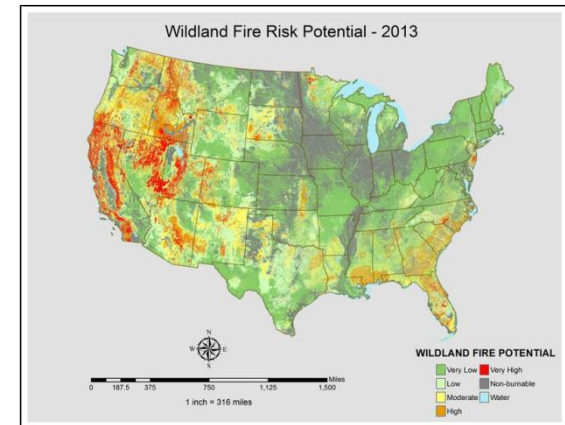
### S&T gaps and opportunities

1. Better coordination for S&T among producers and with the community of users.
2. New technologies for situational awareness/safety
3. The human element of wildland fire.
4. Poor understanding of how wildfires will respond to changing baseline conditions.
5. Poor understanding of the relationship between wildland fires and adjacent structures and a lack of science-based building codes, standards, and guidance.

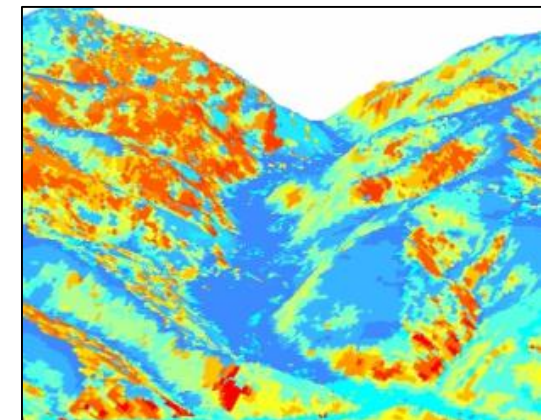


## Decision support & technology

- Integrated fuel mitigation – Online tools
- Wildland fire risk (strategic and tactical)
- Line-officer/administrative unit resources
- Public awareness & communication



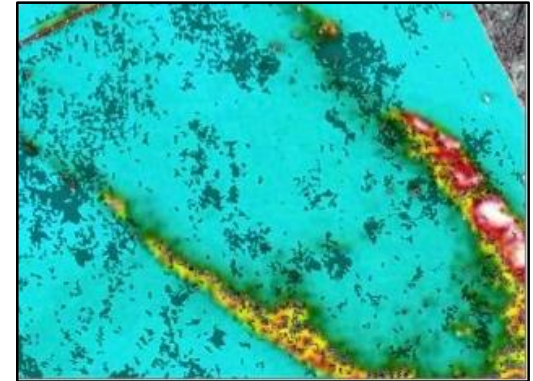
*National Assessments*



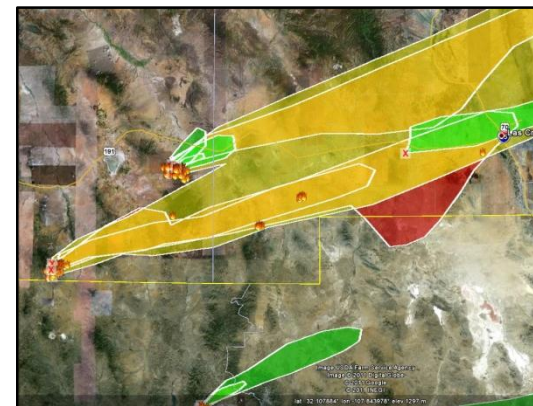
*Fire Risk, Missoula County*

## Decision support & technology

- Active fire mapping
- Operational, fine scale weather and smoke forecasting
- Situational awareness/firefighter safety
- Post-fire stabilization and landslide/debris flow forecasts



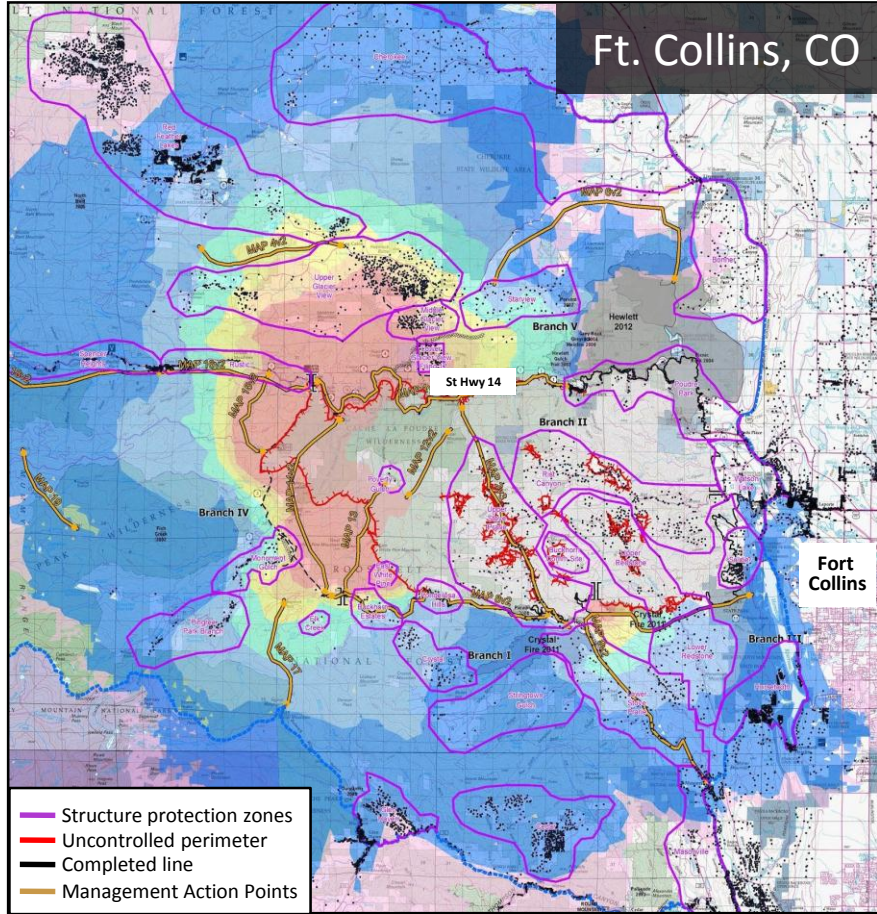
*Elk Complex, ID*



*Wallow Fire, AZ*

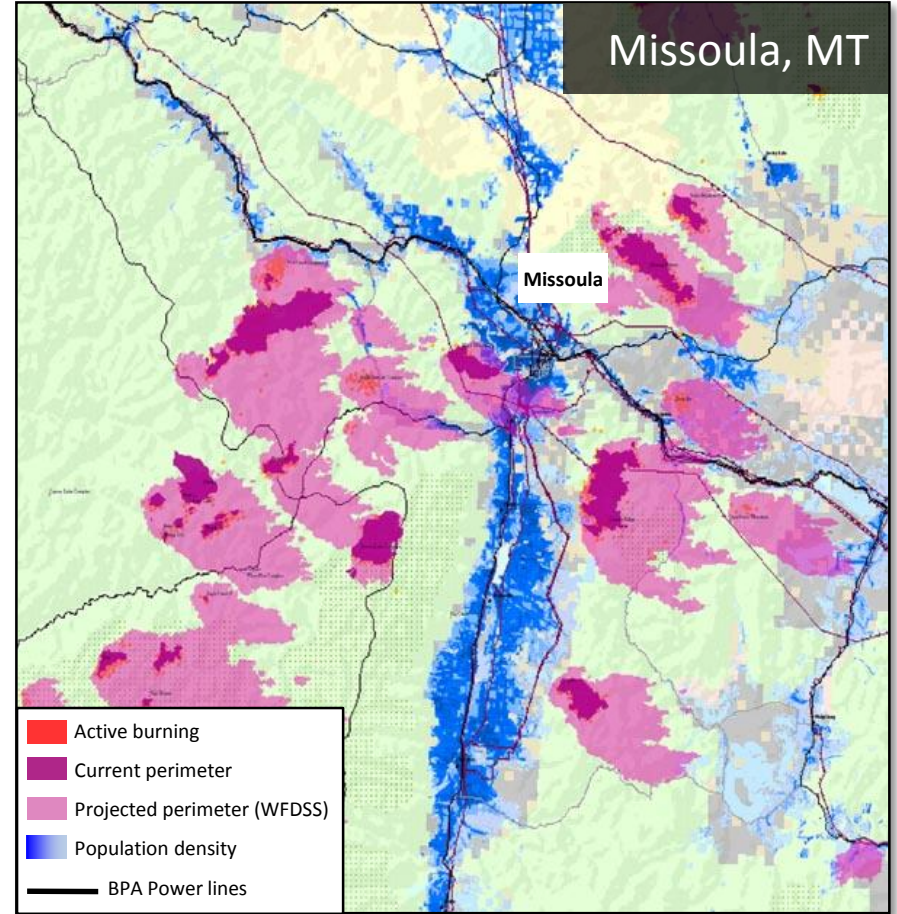


## Local Level



0 2 4 6 Miles

## Regional Level



0 10 20 Miles



## Scientists trained and certified as incident responders

- Geospatial/Remote sensing support
- Incident meteorologists
- Fire behavior analysts
- Air resource monitors
- Post-fire assessment/rehabilitation specialists
  - Landslide prediction, invasive species, erosion, water quality

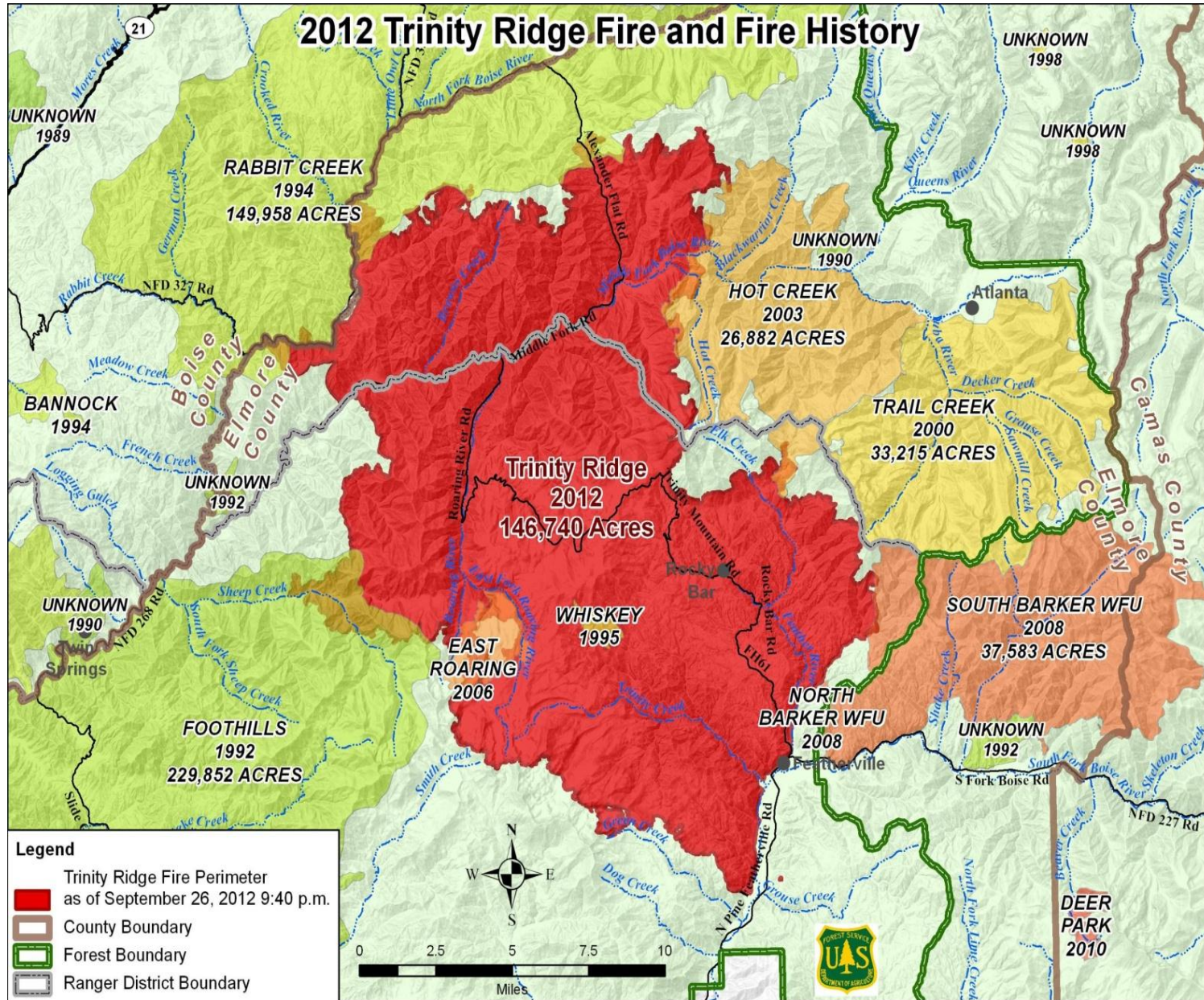


*Wallow Fire, AZ*



*Wallow Fire, AZ*

# 2012 Trinity Ridge Fire and Fire History



# How do we successfully approach wildfire risk?

## Tactical risk aversion

‘Smart money’ is on acquiring resources and practicing aggressive suppression.

## Strategic risk management

Improved social environment for proactive mitigation, sharing risk across stakeholders, and reduction of uncertainty around ‘less aggressive’ suppression.





I THINK I'M GOING NUTS, DOC!  
I KEEP HEARING STRANGE VOICES...  
SAYING IT'S MY FAULT... THAT  
ONLY FOREST FIRES CAN  
PREVENT FOREST FIRES...



**Questions?**  
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**202.815.5734**



Zone 16 Potential Vegetation Type

Actual