

# Rapid Assessment of the Pains Bay Fire, NC

**Location:** FWS Alligator River National Wildlife Refuge  
DOI Dare Air Force Range  
Dare County, NC on the Coastal Plain

**Start:** May 4, 2011

**Cause:** Lightning

**Area:** 29,400 ac (as of 6/3/2011: 80% contained)

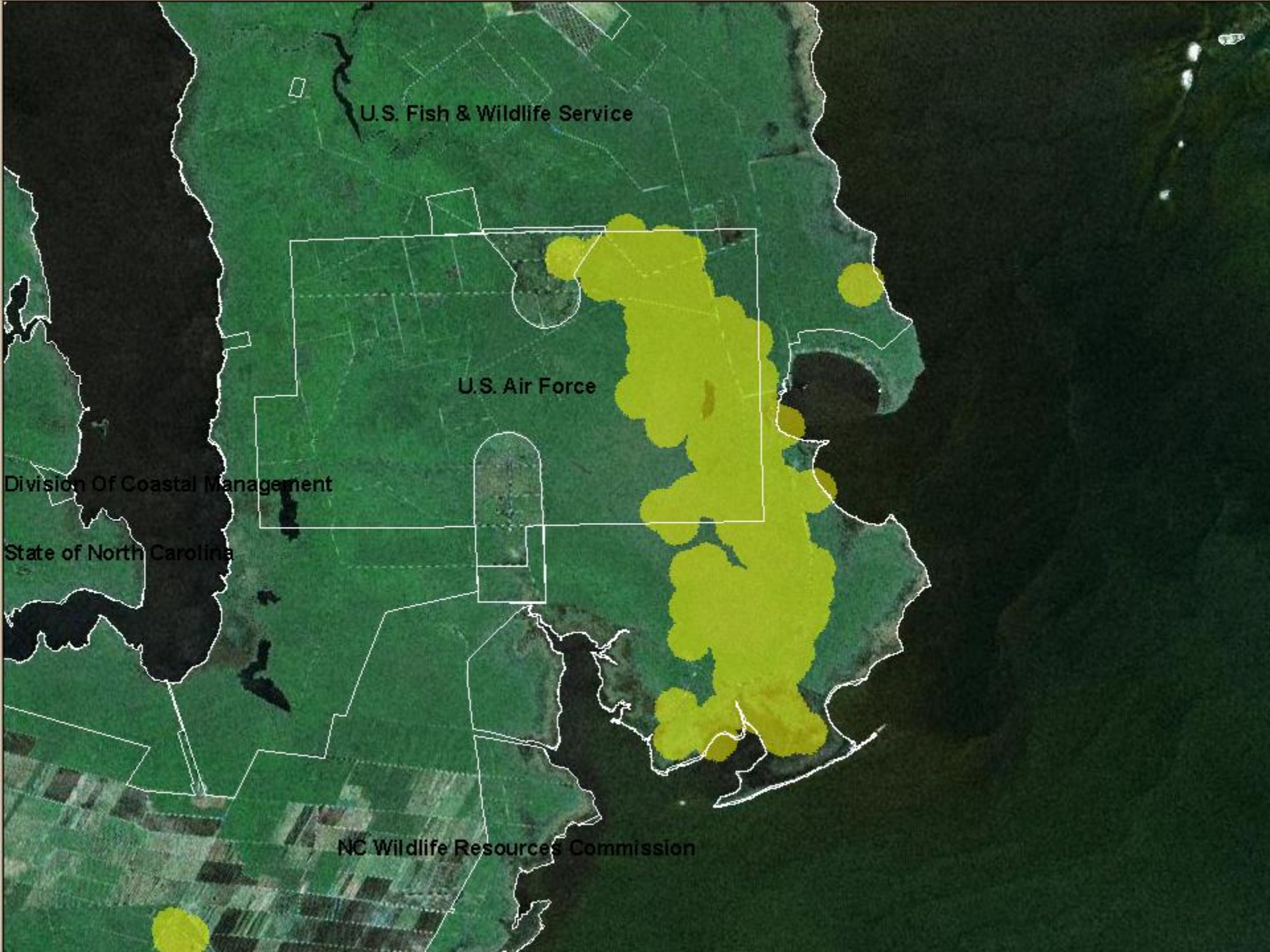
**Fuels:** Pocosin with intermixed pond pine

June 3, 2011  
Steve Norman, EFETAC  
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Location of  
**PAINS BAY FIRE**  
in North Carolina



U.S. Fish & Wildlife Service

U.S. Air Force

Division Of Coastal Management

State of North Carolina

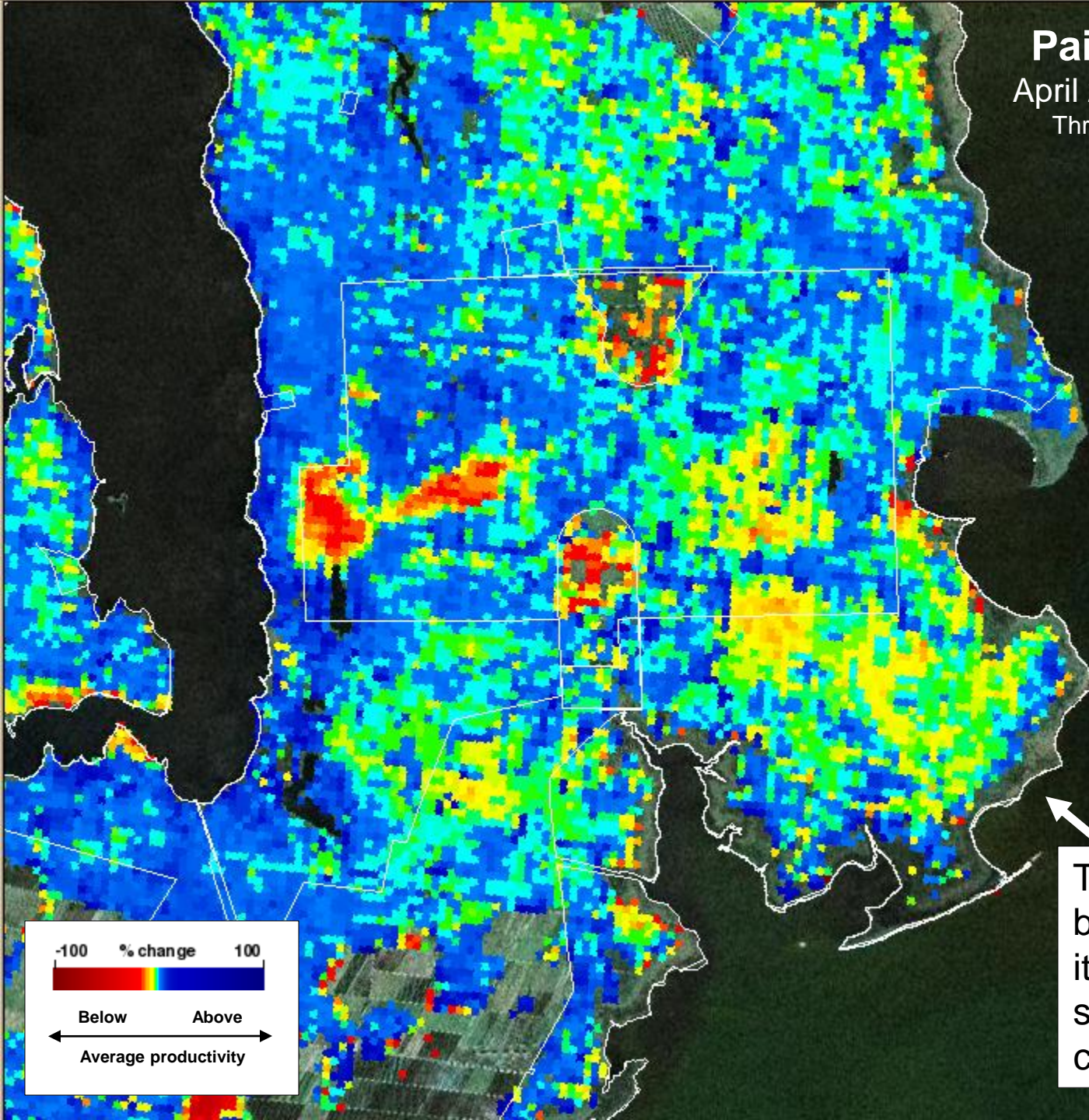
NC Wildlife Resources Commission

The Pains Bay Fire shortly after its start showing the fuels and terrain



# Pains Bay Fire

April 23-May 16, 2011  
Threat Centers-NASA



-100 % change 100

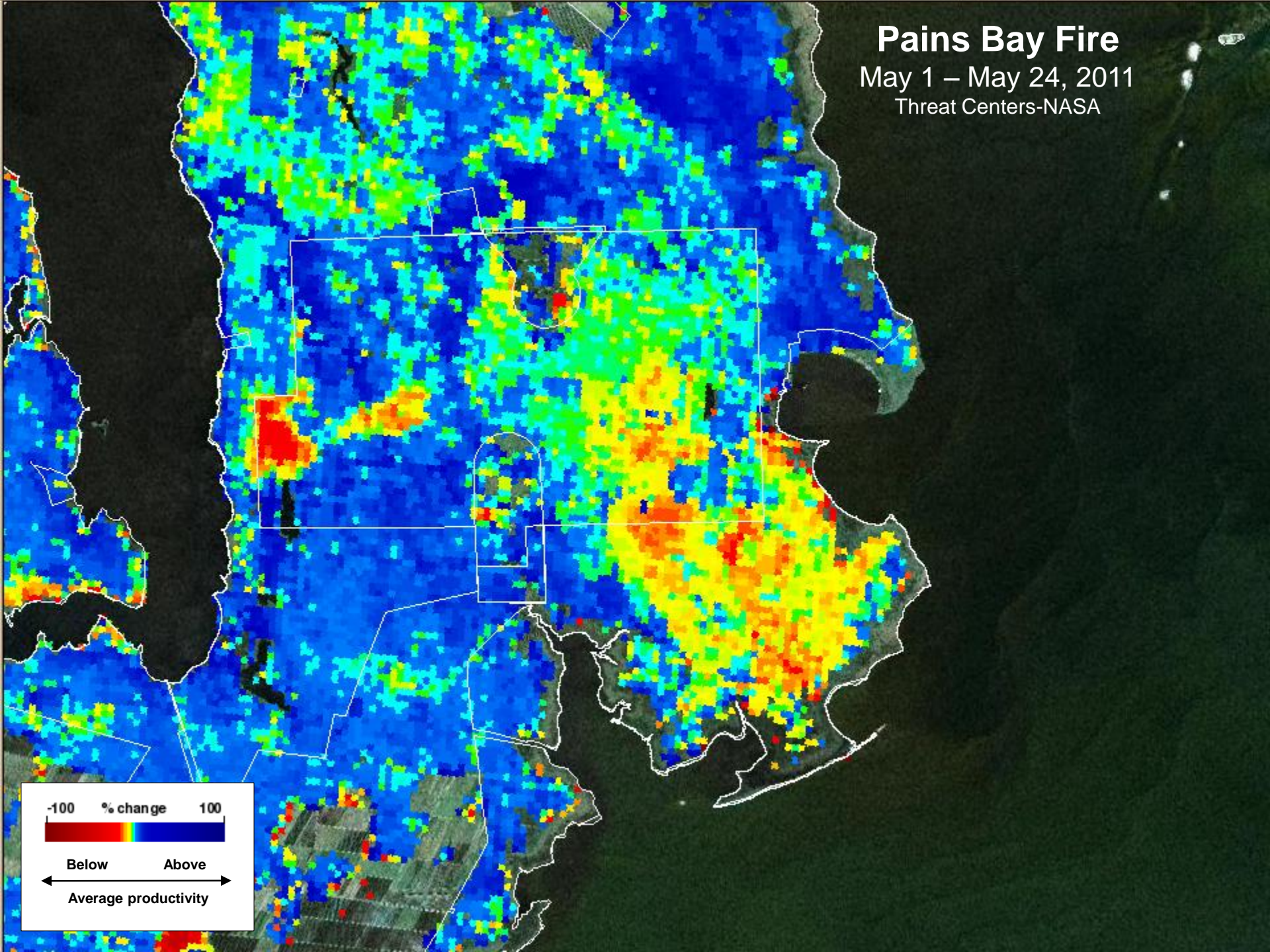
Below Above

Average productivity

The Pains Bay fire began on May 4<sup>th</sup>, but it is not yet clearly shown on this 3-week composite.

# Pains Bay Fire

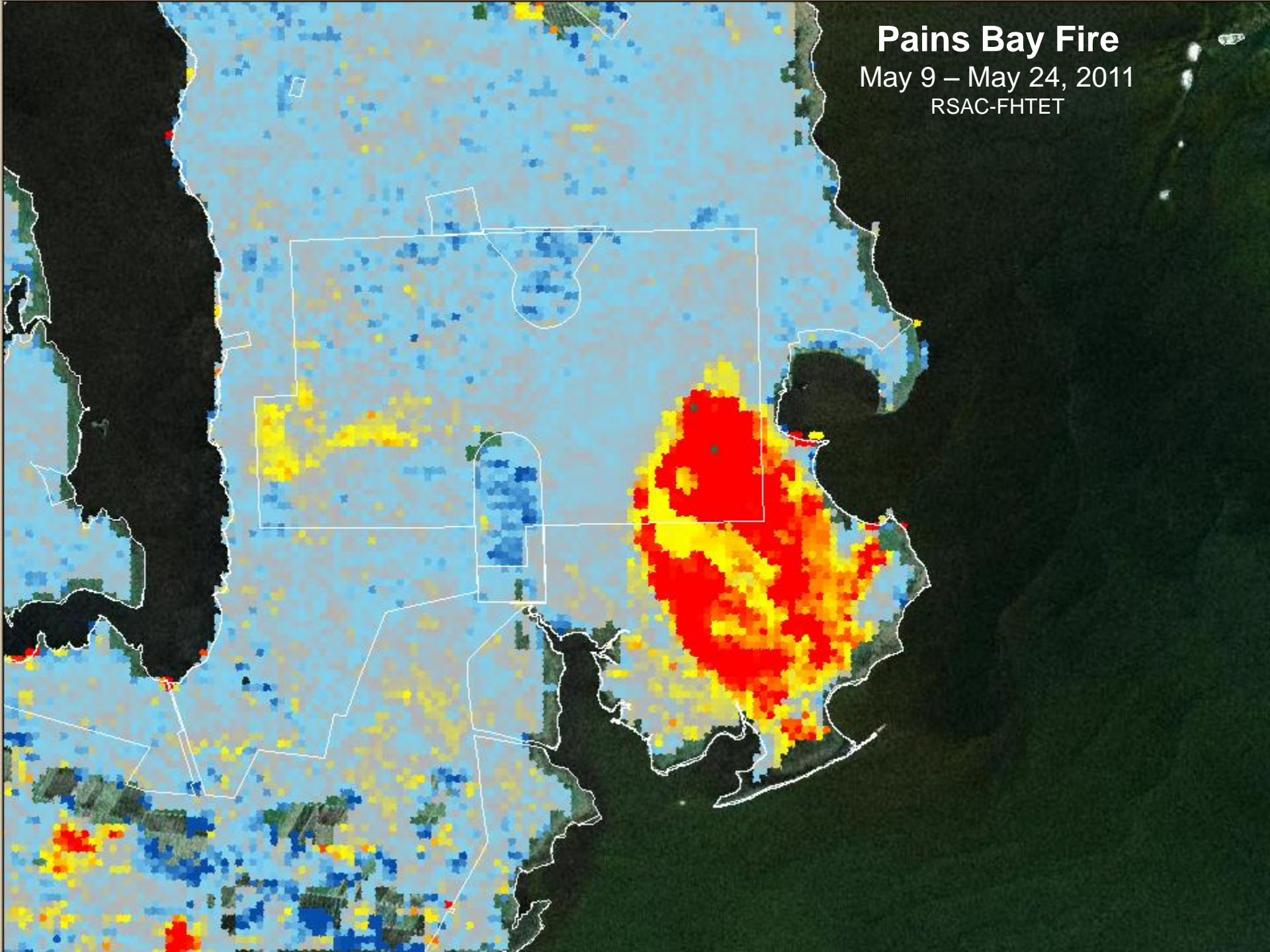
May 1 – May 24, 2011  
Threat Centers-NASA



# Pains Bay Fire

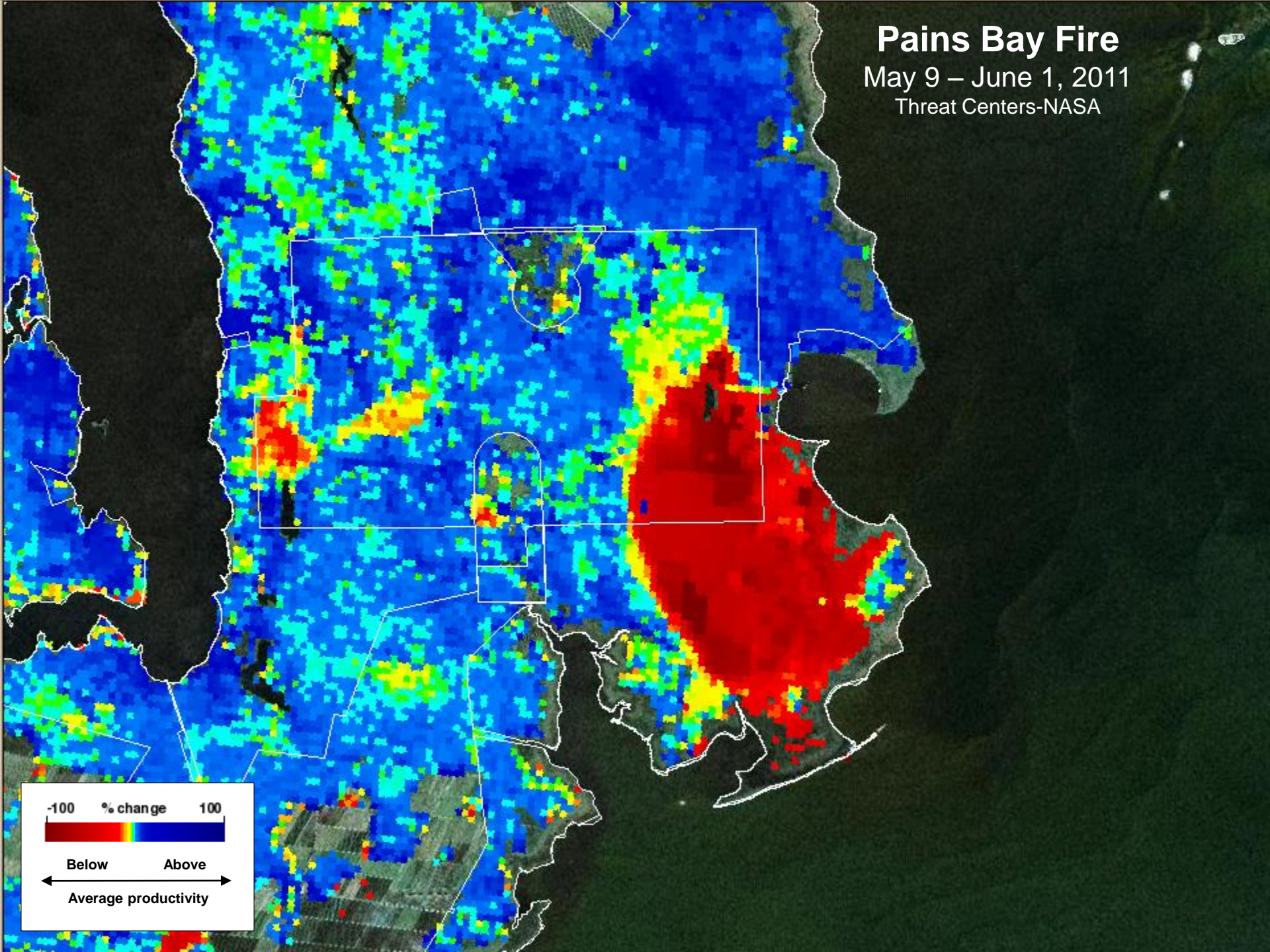
May 9 – May 24, 2011

RSAC-FHTET



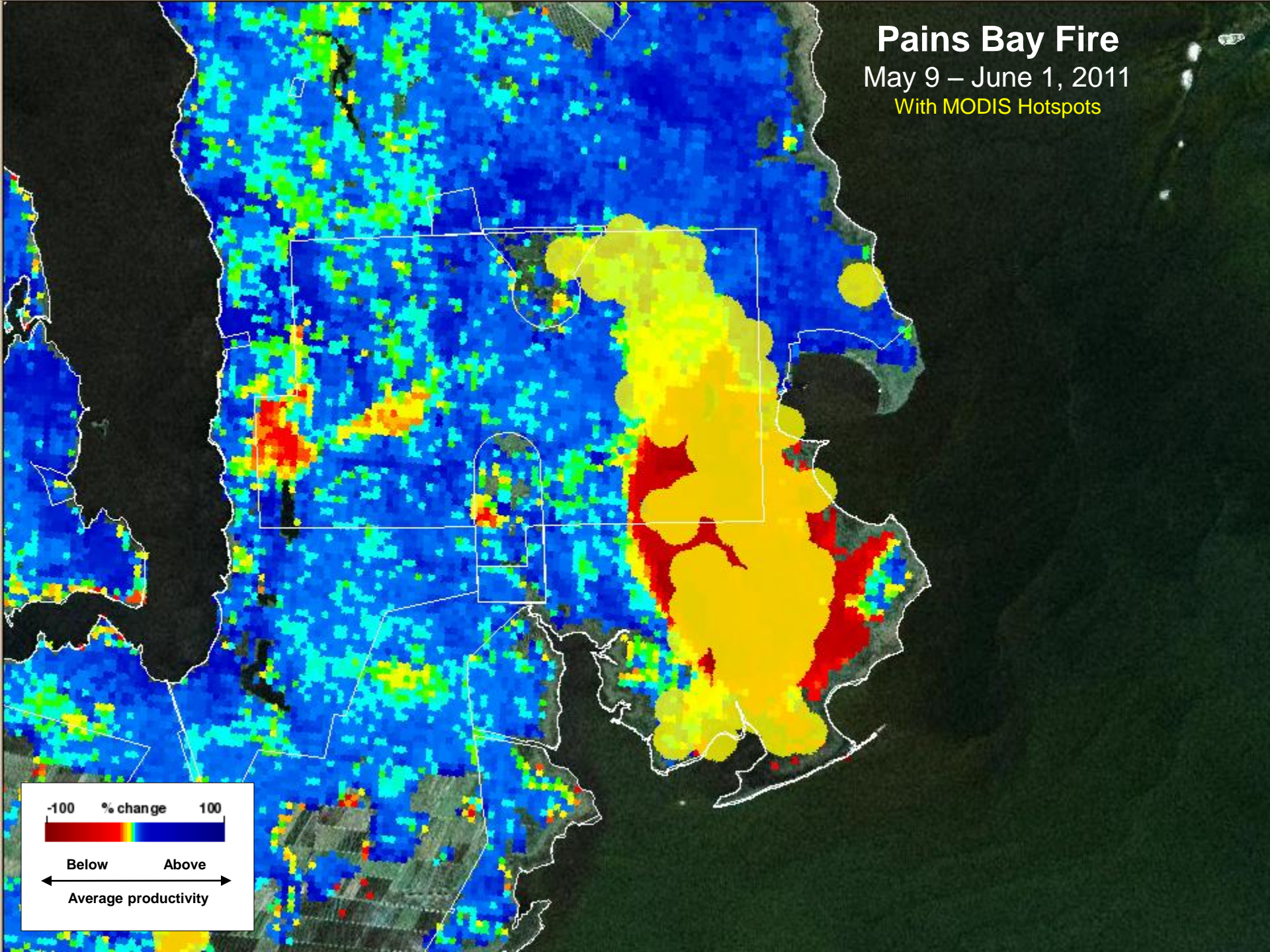
# Pains Bay Fire

May 9 – June 1, 2011  
Threat Centers-NASA



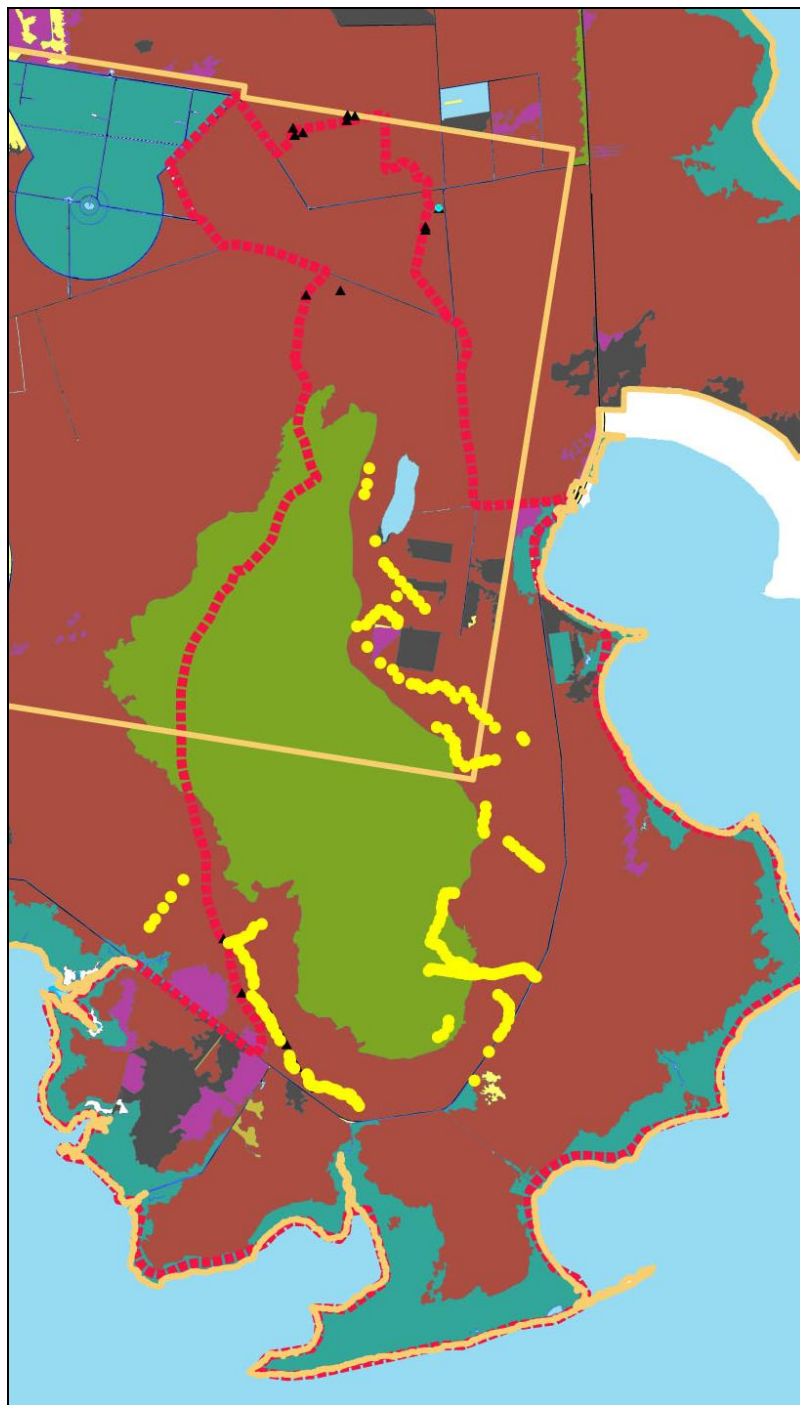
# Pains Bay Fire

May 9 – June 1, 2011  
With MODIS Hotspots



# Fuel Types of the Pains Bay Fire

Source: [www.inciweb.org](http://www.inciweb.org)



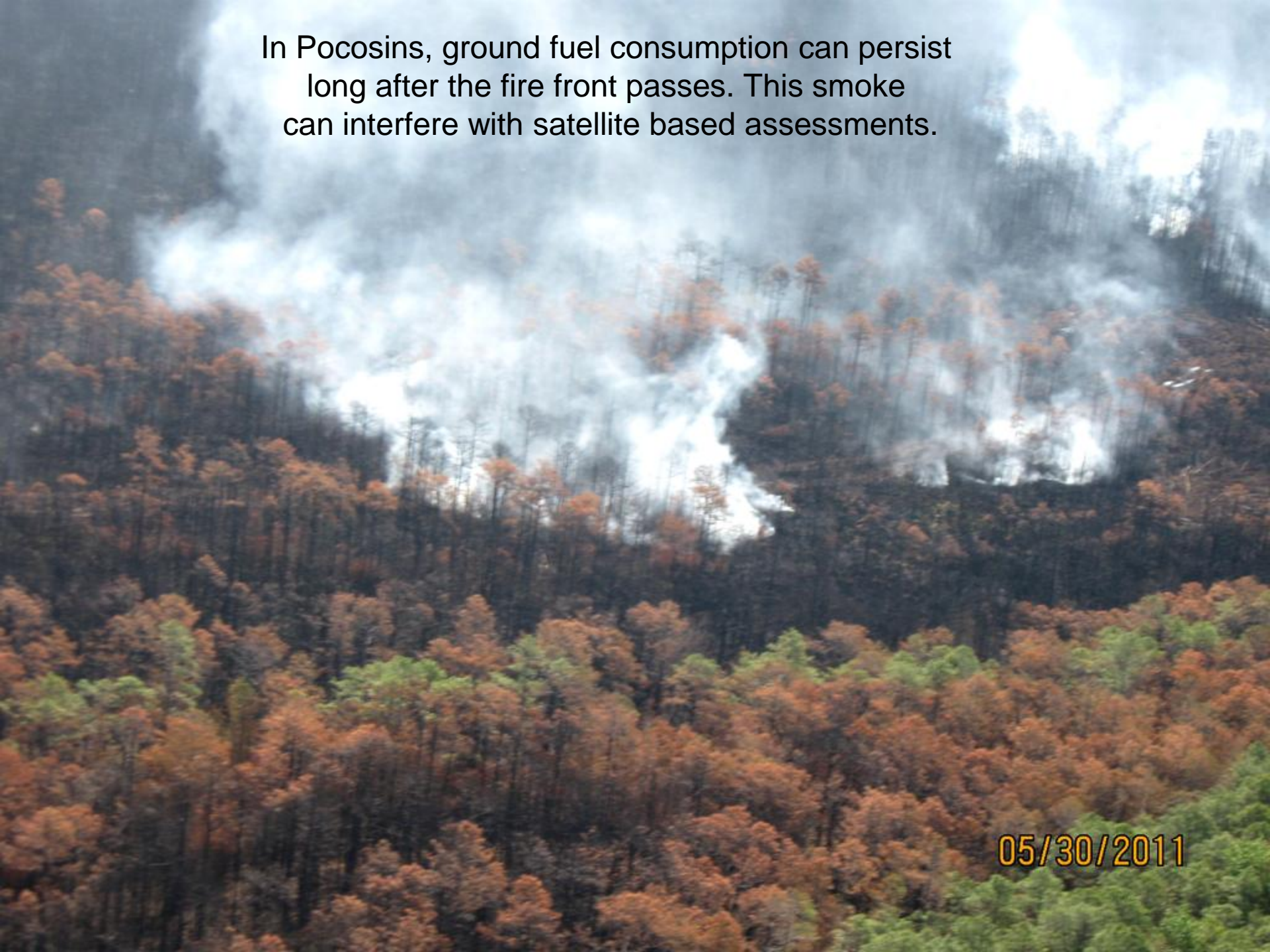
- Tall Grass
- Southern Rough
- Shrub Pocosin
- Regeneration
- Low Pocosin
- Hardwoods w/heavier fuels
- Hardwoods
- Clearcuts with heavy loads
- 20110601\_Pains\_Bay\_lines of groundfire\_2000
- 20110602\_pains\_bay\_1300\_hotspots
- 20110601\_2000\_Fire\_Polygon

The continuous and severe loss of greenness evident from MODIS is confirmed by this aerial photograph along Highway 264





In Pocosins, ground fuel consumption can persist long after the fire front passes. This smoke can interfere with satellite based assessments.



05/30/2011



### **Assessment:**

The 2011 Pains Bay fire is typical of the coastal Pocosin vegetation type. High flame lengths and long-duration consumption of ground fuels have contributed to near uniform top-kill over a large area. This high severity behavior is shown in the consistent red pattern (below). Recovery can be traced in coming months and years, as ferns have already started to resprout, even though the fire is not yet contained.

