

TEXAS WILDFIRE SEASON 2011

SCIP Implementation Workshop

Austin, Texas



U.S. Drought Monitor

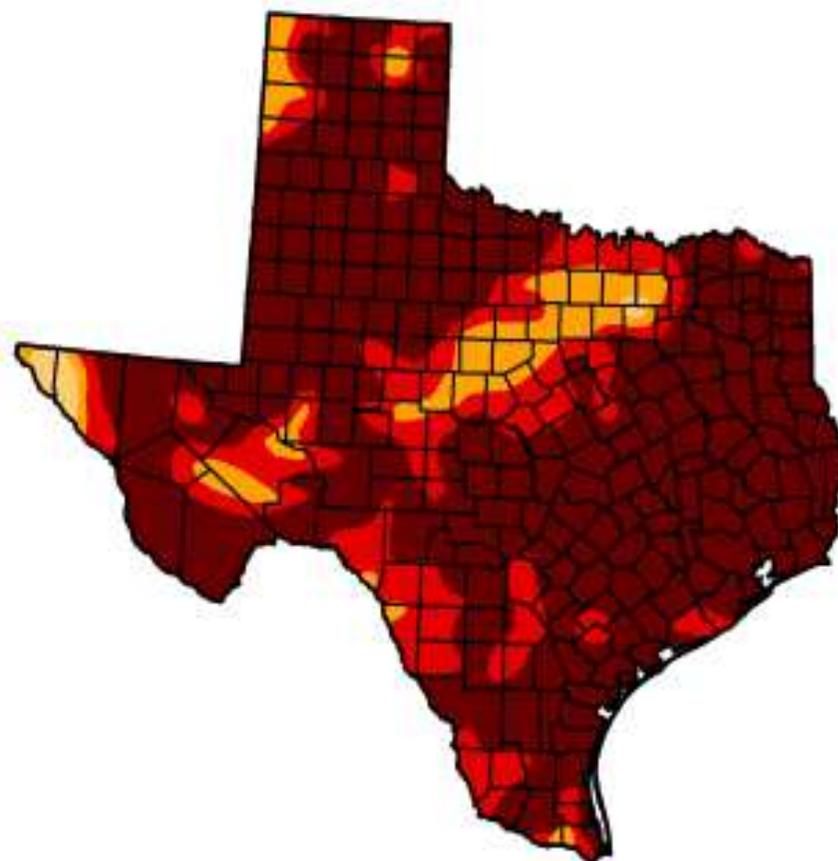
Texas

October 11, 2011

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	99.15	91.96	73.13
Last Week (10/04/2011 map)	0.00	100.00	100.00	99.16	96.99	87.99
3 Months Ago (07/12/2011 map)	0.00	100.00	97.43	95.78	90.97	71.66
Start of Calendar Year (12/28/2010 map)	7.89	92.11	69.43	37.46	9.59	0.00
Start of Water Year (09/27/2011 map)	0.00	100.00	100.00	99.16	96.65	85.75
One Year Ago (10/05/2010 map)	75.60	24.40	2.43	1.01	0.02	0.00



Intensity:

-  D0 Abnormally Dry
-  D1 Drought - Moderate
-  D2 Drought - Severe
-  D3 Drought - Extreme
-  D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>



Released Thursday, October 13, 2011



La Nina

La Nina, blamed for U.S. South drought, may revive this autumn

Recommend 28 recommendations. Sign Up to see what your friends recommend.



NEW YORK | Thu Jul 7, 2011 11:23am EDT

(Reuters) - The La Nina weather anomaly blamed for one of the worst droughts in the southern United States could revive this autumn, the U.S. Climate Prediction Center forecast on Thursday.

In its monthly report, the CPC said wind circulation consistent with La Nina was persisting in the central Pacific Ocean where the anomaly is usually born.

"Combined with the ... lingering La Nina state of the atmosphere, the possibility of a return to La Nina during the Northern Hemisphere fall (of 2011 has increased over the past month," the CPC, an office under the

- Tweet 5
- Share 3
- Share this
- Email
- Print

Related News

Asia pollution blamed for halt in warm study
Tue, Jul 5 2011

Arlene lashes Mexico with heavy rains
Thu, Jun 30 2011

Arlene to drench swaths of central Mexico
Thu, Jun 30 2011

UPDATE 2-IM Colombia gov view, suggests reform
Thu, Jun 23 2011

UPDATE 2-Cc bond yields fall easing inflation
Wed, Jun 22 2011

Model Predictions of ENSO from Sep 2011

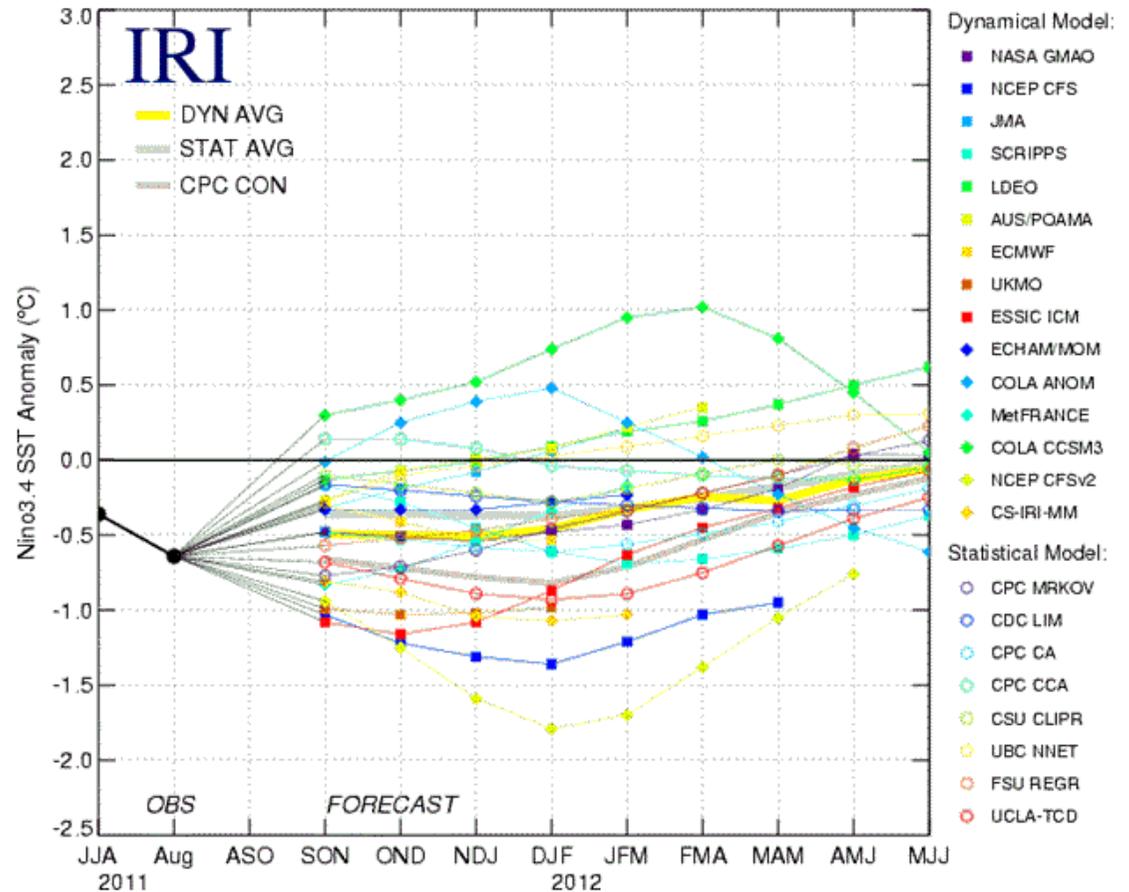


Figure 6. Forecasts of sea surface temperature (SST) anomalies for the Niño 3.4 region (5°N-5°S, 120°W-170°W). Figure courtesy of the International Research Institute (IRI) for Climate and Society. Figure updated 13 September 2011.

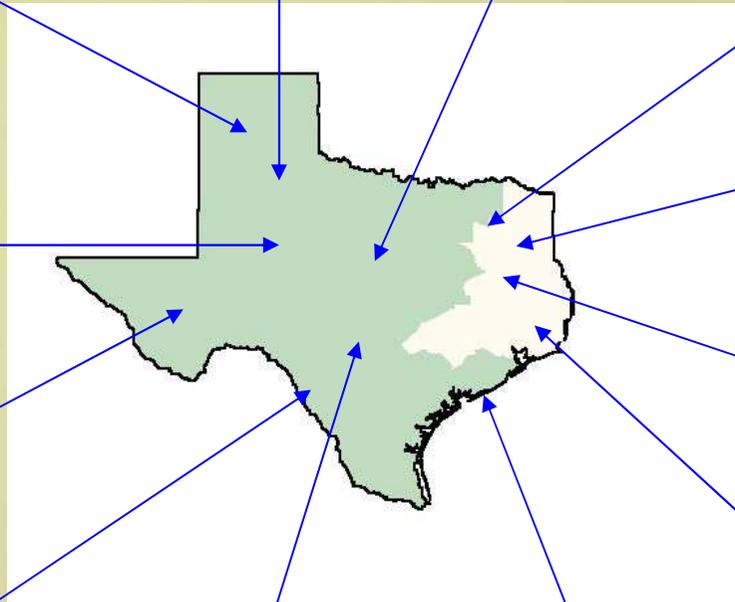


Driest and Hottest Year on Record...





TERRAIN FEATURES ADD TO THE COMPLEXITY





Local First Responders



- 1,800 fire departments
- 40,000 firefighters
- 10,000 fire engines

***Volunteer Fire Departments
respond to 90% of the
wildfires in the state.***

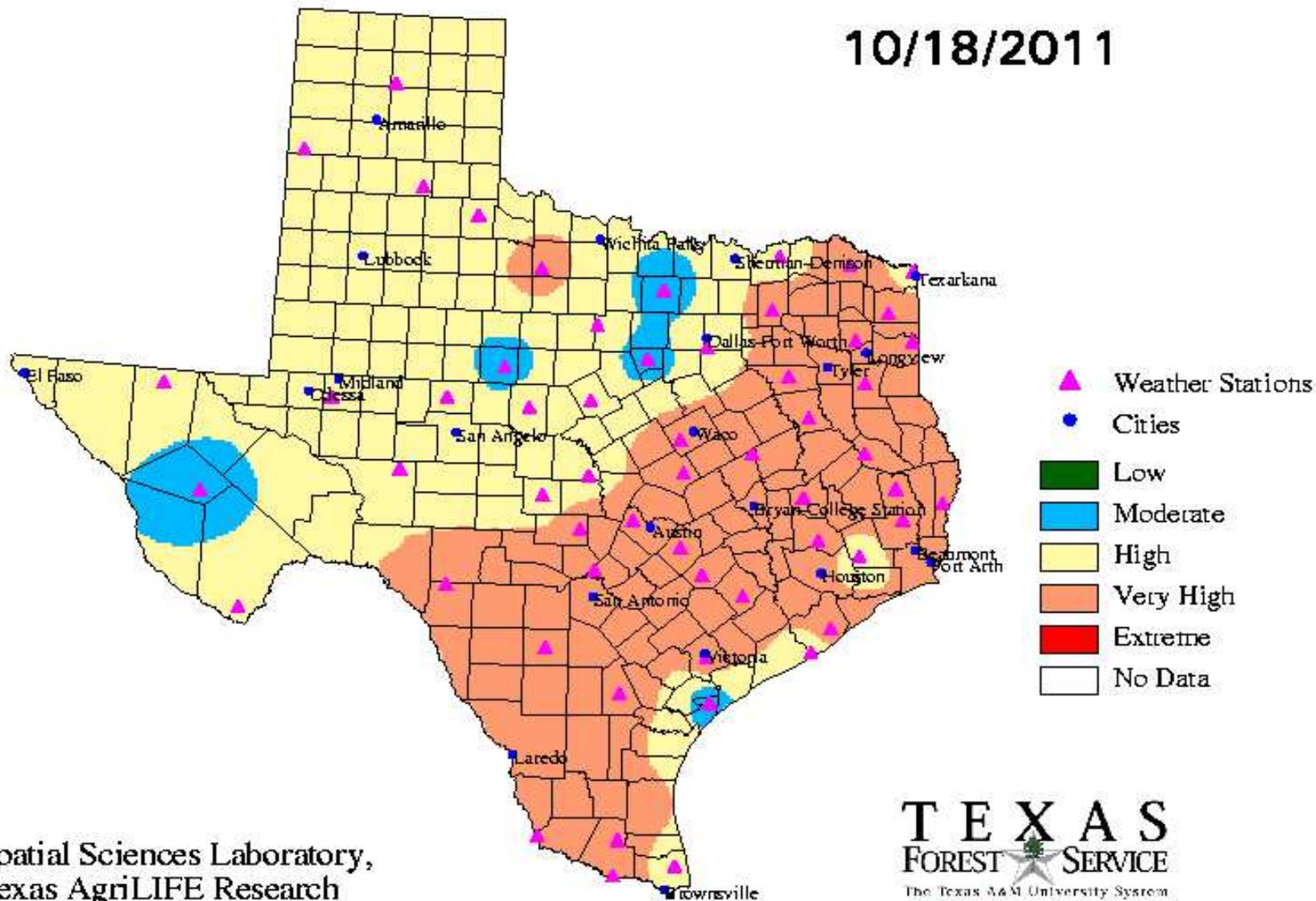


Texas Forest Service



Forecast Fire Danger map

10/18/2011



Spatial Sciences Laboratory,
Texas AgriLIFE Research
<http://www-ssl.tamu.edu>

TEXAS
FOREST SERVICE
The Texas A&M University System

AgriLIFE RESEARCH

Texas A&M System





Extreme Daytime Fire Behavior



Tactic: *Evacuate*



Fire Creating Weather Environment



Wind speeds Affected Aviation



Spot Fires up to 0.5 Mile Downwind

Link



Nighttime Firefighting





Exposures and Values at Risk

Over 1800 homes were lost in just 3 days.



Timber loss, through the “ripple-effect” to the economy, is in the billions.





Rock House Fire Presidio/Jeff Davis Counties

***Started April 9
Controlled May 12
314,444 Acres***



McDonald Observatory



Fire Statistics – 2011 Fire Season

Jan 1 to Oct 13	Fires	Acres	Homes Lost	Homes Saved
TFS	3210	2,876,401	2,555	11,759
Fire Depts.	21,046	908,920	274	23,272
Total	24,256	3,785,322	2,829	35,031





*47 % of the acreage
Burned in the US in 2011
were in Texas*

**Nov 15, 2010 –
Oct 31, 2011**

Fires	Acres	Homes Lost	Homes Saved
30,457	3,993,716	3,017	39,413

***1,939 homes destroyed
on these two days***

**Texas wildfire activity between
September 4 and 5 in 2011:**

- TFS 66 fires for 150,717 acres**
- FD 450 fires for 15,489 acres**

Total 516 fires for 166,206 acres



Data use subject to license.

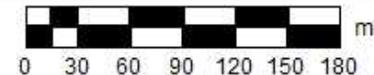
© DeLorme. XMap® 7.

www.delorme.com



MN (5.7° E)

Created on: 3/8/2012



Data Zoom 4-5



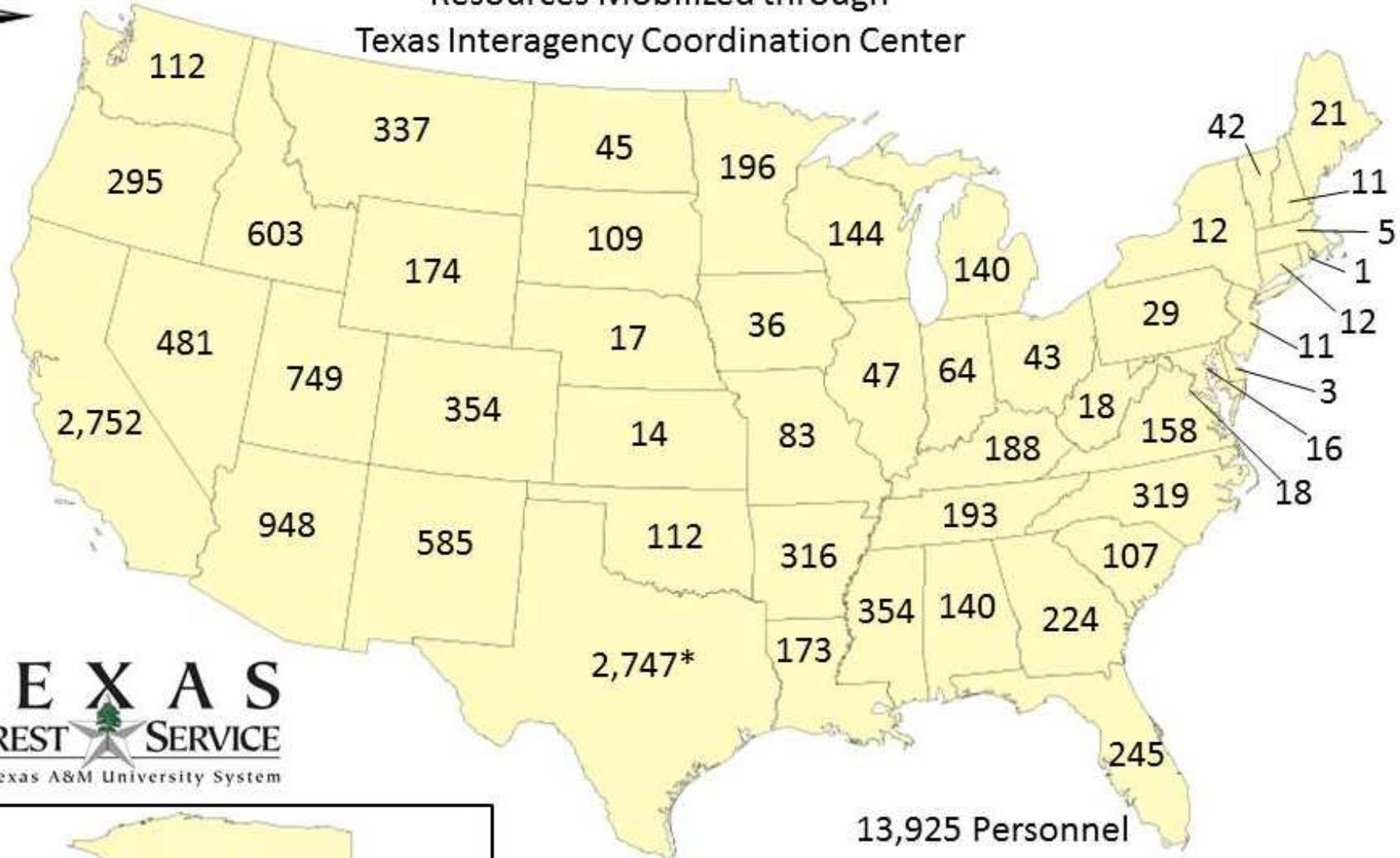
**34,068 acres
1,645 homes destroyed
Two fatalities**

Most destructive fire in Texas history...

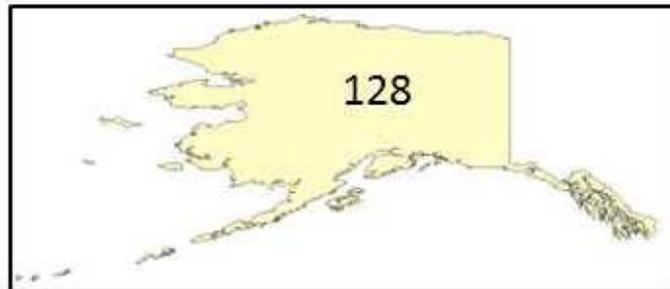


2011 Fire Season

Resources Mobilized through
Texas Interagency Coordination Center



T E X A S
FOREST SERVICE
The Texas A&M University System



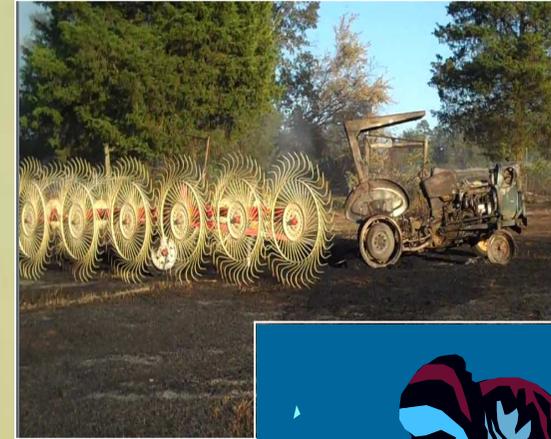
13,925 Personnel
98 Crews
227 Dozers
954 Engines
196 Aircraft

* - Includes resources mobilized by
Texas Intrastate Fire Mutual Aid System

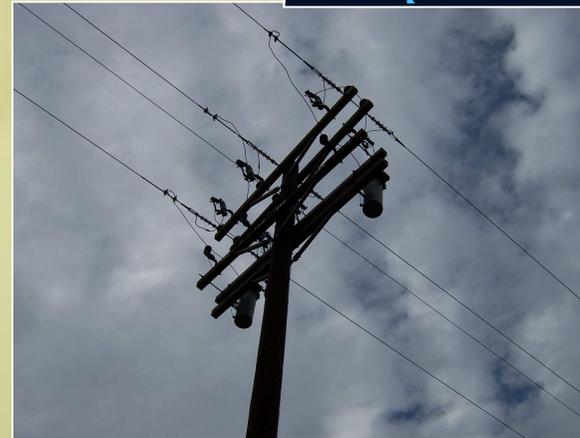
Map updated: 9/23/2011



Primary Wildfire Causes



ARSON





Re-burn Phenomenon in Timber





Preventative Measures

*Defensible Space
around Homes*



Fig. 1 Disced Fire Guard



Fig. 2 Bladed Fire Guards

*Fire Breaks can be
very effective tools.*



Fig. 4. This Fire Guard Is Too Narrow



Fig. 5. Mowed and Disced Fire Guard



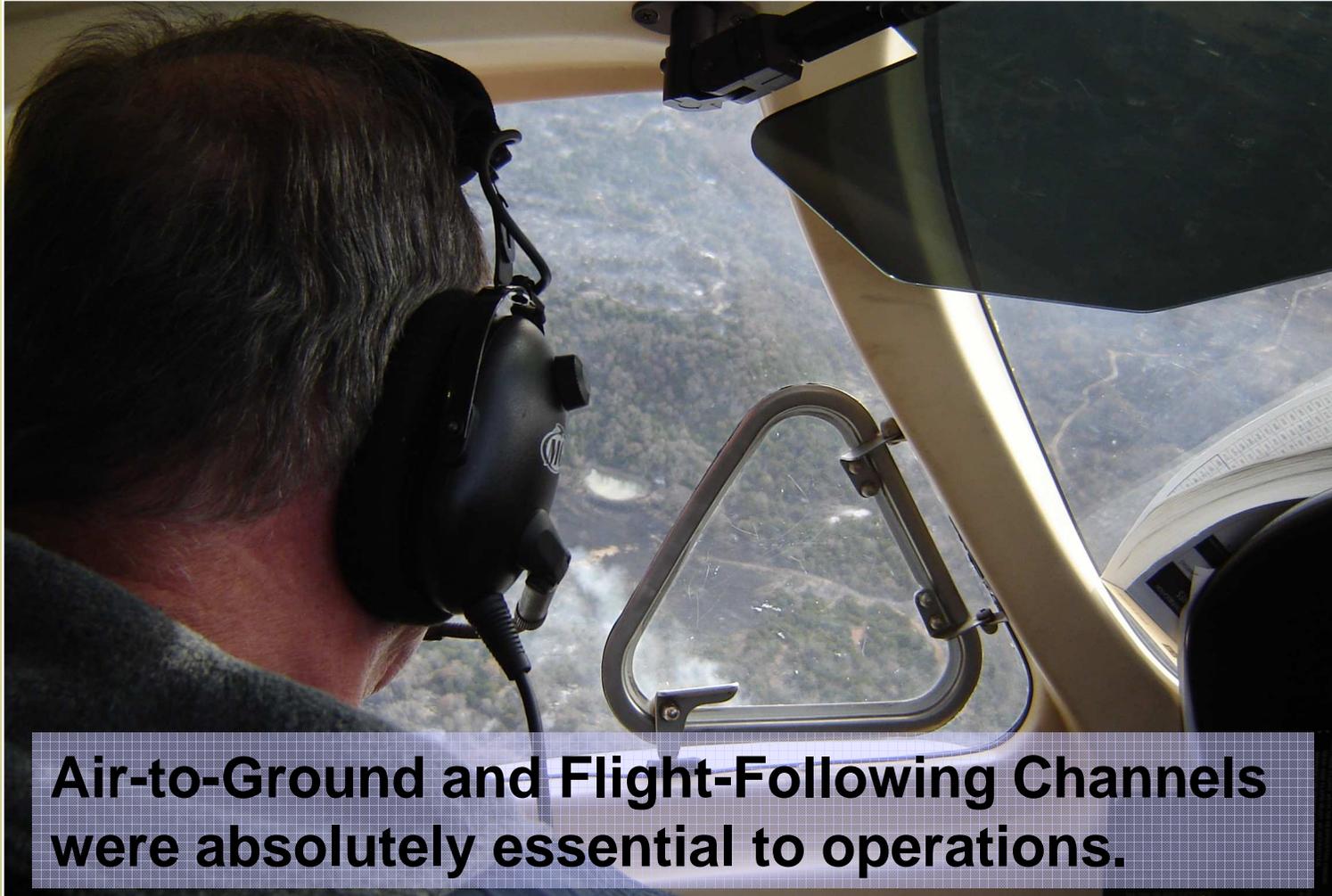
Fire Department Assistance

- Insurance Programs
 - *Vehicle Liability, Workers Comp*
- Helping Hands – *Transfer of equipment*
- HB 2604 FD Assistance – *Grants*
- Federal Excess Property Program





Aerial Detection, Recon, Direction





Texas Intrastate Fire Mutual Aid System (TIFMAS)

Program development based on input from:

- State Firemen's and Fire Marshals' Association
- Texas Fire Chiefs Association
- Texas State Association of Fire Fighters



First nine months of operation:



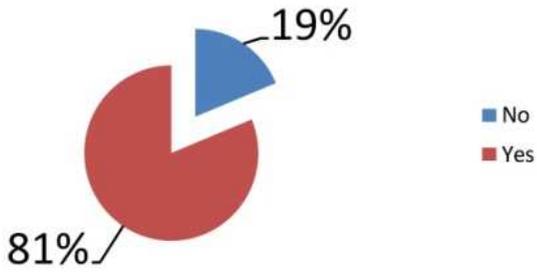
- 16 TIFMAS apparatus purchased
- ***Equipped with radios and interoperable channels on all public safety bands***
- 7 mobilizations in 2011 with **354 engines** and **1,280 firefighters** from **204 fire departments**

Wildfires Within 2 Miles of a Community

1/1/2005 - 2/3/2010

Fires: 77,680
Acres: 5,091,413

Wildfires within 2 miles of a community
1/1/2005 - 2/3/2010



Legend

Wildfires Within 2 Miles

- No (Black dot)
- Yes (Red dot)

Interstate (Blue line)

Major Lake (Light blue area)

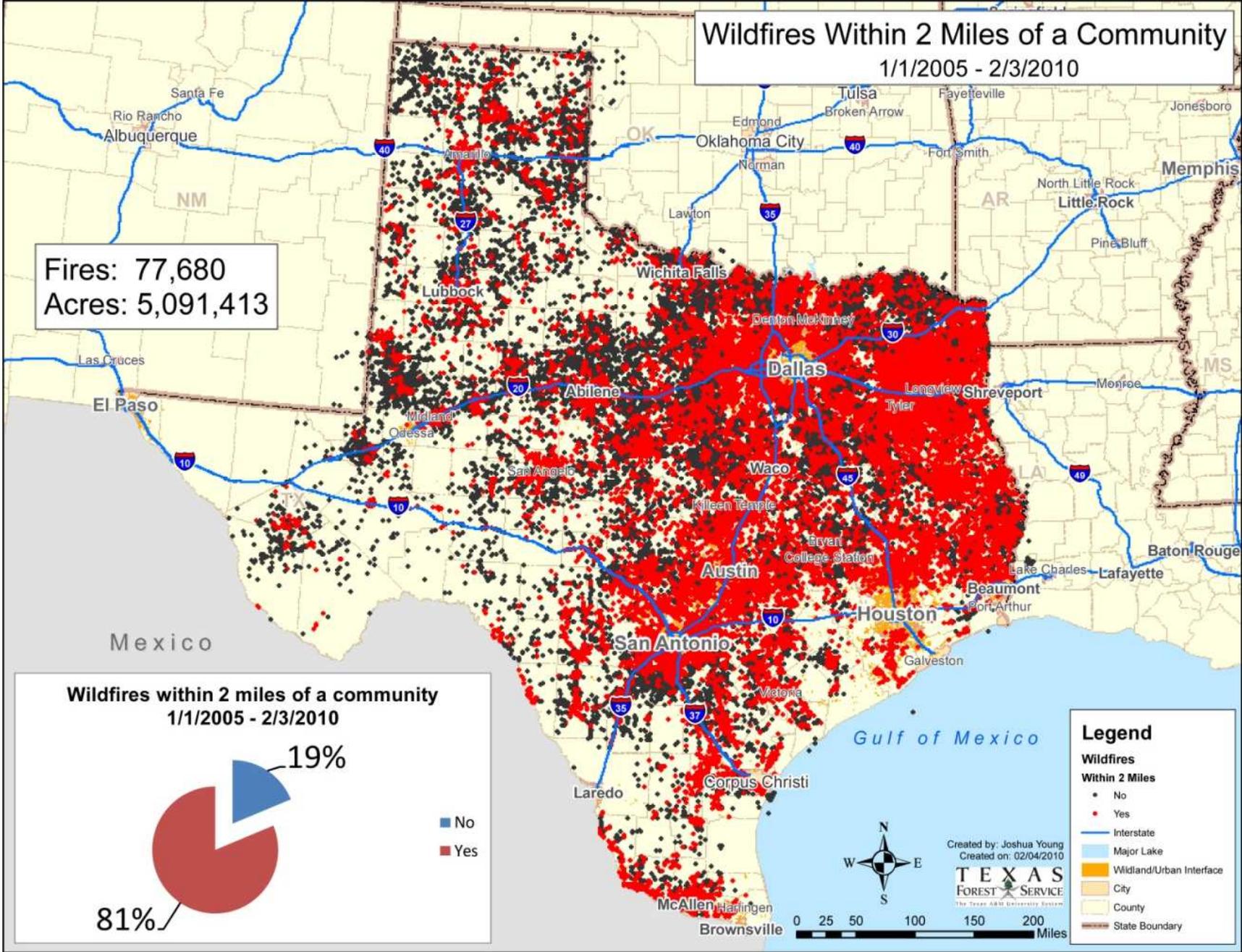
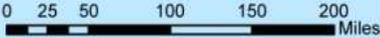
Wildland/Urban Interface (Yellow area)

City (Orange area)

County (Light yellow area)

State Boundary (Brown line)

Created by: Joshua Young
Created on: 02/04/2010
TEXAS FOREST SERVICE
The Texas A&M University System





Texas Wildfire Protection Plan

- Assessment & Monitoring
- Prevention & Mitigation
- Planning & Preparedness
- Statewide Capacity Building
- Rapid Initial Response to Wildland Fires





Long-Term Prediction

U.S. Drought Monitor Texas

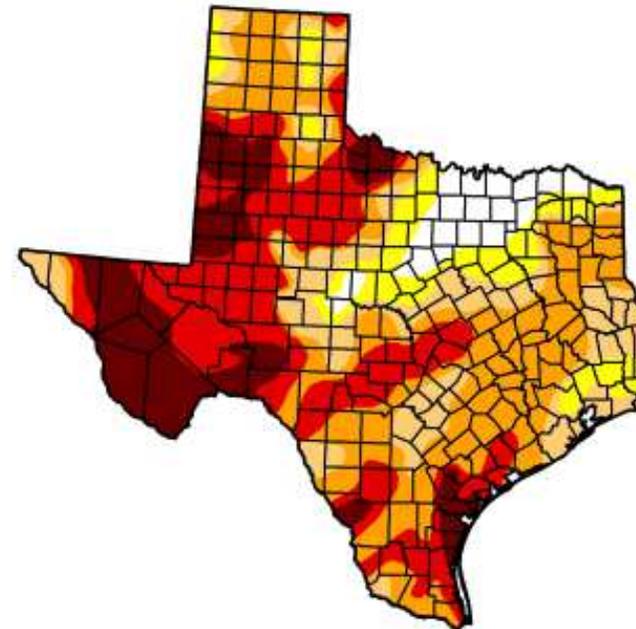
February 28, 2012
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	6.05	93.95	85.21	67.48	38.68	14.75
Last Week (02/21/2012 map)	6.05	93.95	85.21	67.48	38.68	13.93
3 Months Ago (11/29/2011 map)	0.00	100.00	100.00	94.23	82.66	52.67
Start of Calendar Year (12/27/2011 map)	0.01	99.99	97.83	84.81	67.32	32.36
Start of Water Year (09/27/2011 map)	0.00	100.00	100.00	99.16	96.65	85.75
One Year Ago (02/22/2011 map)	5.08	94.92	69.74	45.24	12.64	0.00

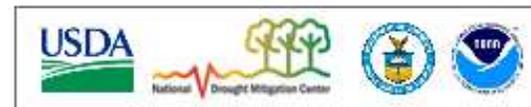
Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

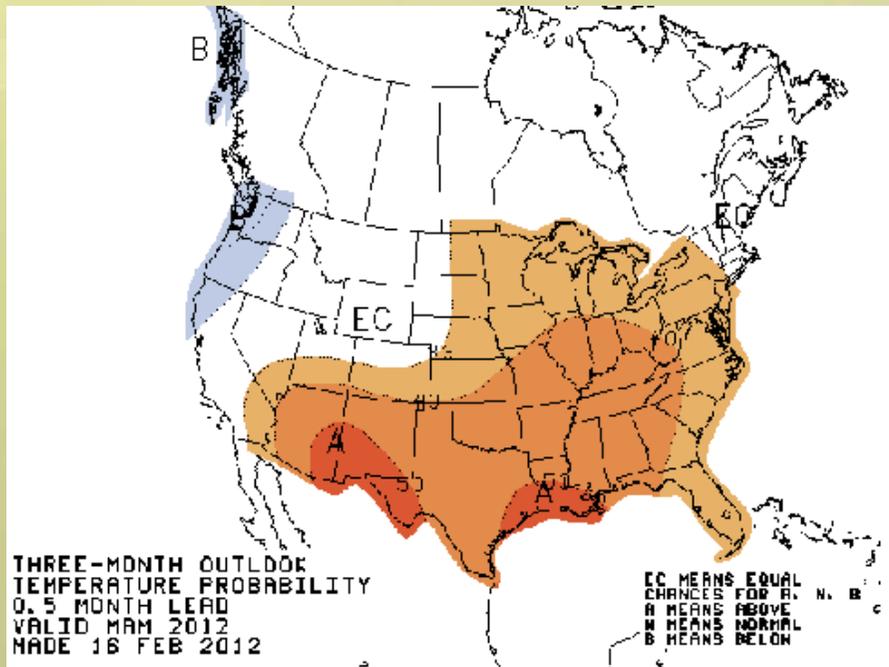


The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

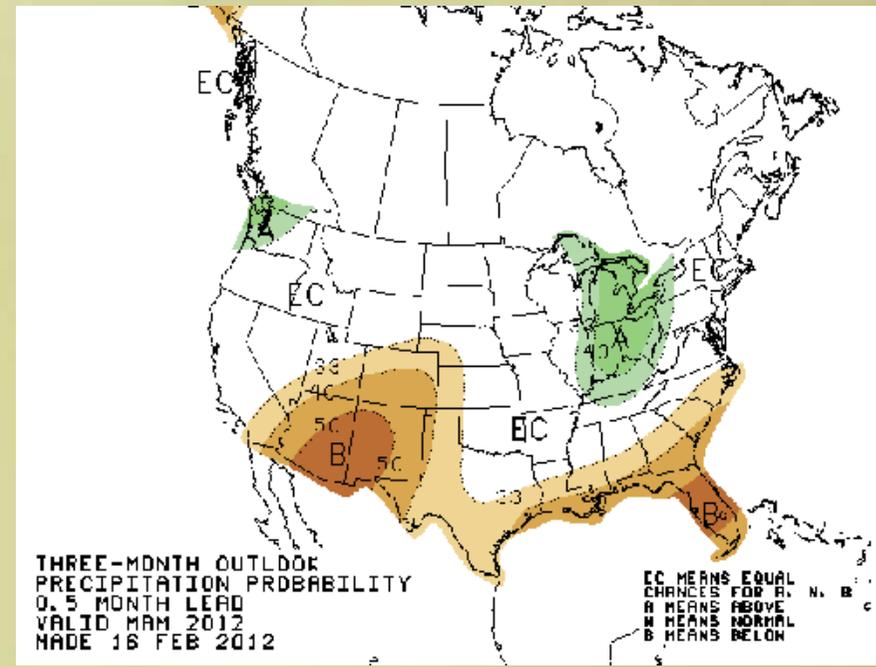
<http://droughtmonitor.unl.edu>



Released Thursday, March 1, 2012
Mark Svoboda, National Drought Mitigation Center



Temperatures: March-May 2012



Precipitation: March-May 2012



Total Destruction of Natural Resources
Value, Aesthetics, and Time Lost