United States Department of Agriculture

Forest Service

Southern Region



Annual Fire Report

Southern Region Calendar Year 2009

Prepared by the Southern Area Coordination Center, July 2010

Tami Buchanan, Intelligence Coordinator Kelly Jerzykowski, Area Coordinator



Southern Area Coordination Center, Atlanta, Georgia

Southern Region 2009 Annual Fire Report

This document was prepared by the Southern Area Coordination Center (SACC), Atlanta, Georgia. It is a compilation of field reports submitted by each forest within the Southern Region. Fire occurrence statistics, unless otherwise stated, reflect actual field fire report data. This document will be published on the SACC website in the Predictive Services section. The SACC website can be accessed at the following internet address: http://gacc.nifc.gov/sacc/.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, DC 20250-9410 or call 1-800-795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

TABLE OF CONTENTS

Fire Season Highlights	1
Weather Summary	7
Significant Prescribed Fire Accomplishments	16
Examples of Significant Improvement in Cost Effectiveness ······	····· 21
Noteworthy Instances of Cooperation	24
Summary of Statistics from Wildland Fire Reports	30

LIST OF TABLES

1 - Percent of Rainfall ······	··1
2 - Top 10 Record Crest in 2009 ·····	··2
3 - 2009 Prescribed Fire Activity	16
4 - Personnel Employed on Wildlife Activities	30
5 - Land Protection Report - 2009 ······	31
6 - Fires and Acres by Cause	32
7– Fires and Acres by Size Class	34
8 - Ten Year Average: 2000 –2009	36

SOUTHERN REGION 2009 ANNUAL FIRE REPORT

FIRE SEASON HIGHLIGHTS

<u>NATIONAL FORESTS IN ALABAMA</u> - The National Forests in Alabama began 2009 with no rainfall shortage issues and the rainfall continued through the prescribed burn season. There were only 27 wildfires for a total of 847.8 acres burned in 2009. Fire occurrence was below normal for the forests; with a total of 2 large fires, both in the Okmulgee Ranger District, for a total of 647 acres.

<u>OUACHITA NATIONAL FOREST, OZARK & ST. FRANCIS NATIONAL FORESTS</u> - In 2009, Arkansas received 125% to 175% of normal rainfall, with record precipitation at several spots. It was the second wettest year on record (behind 1957). There was widespread flash flooding and top 10 crests were established on area rivers. (See Table 2 for area rivers). Table 1 - Percent (%) of the total rainfall (81.79 inches) in 2009 for each

The year began with an historic and destructive ice storm across northern sections of the state in January. A foot of snow blanketed portions of the northeast in February. Heading into Spring, severe weather was minimal at first, with no tornadoes through the first few days of April. That all changed on the 9th, with a deadly tornado (3 fatalities) at Mena (Polk County). This was one of 45 tornadoes for the year, which was above the annual average of 26 tornadoes. Wind and hail events occurred in June. A *derecho* (long-lived wind damage event) on the 12th was followed by a swath of quarter to baseball size hail in central Arkansas (Lonoke and Pulaski Counties) on the 30th.

Looking back at rainfall records for 2008, there were three (3) reporting sites in Arkansas that reached 80 inches of rainfall for the year. In 2009, there were eighteen (18) reporting sites that reached 80 inches or

Rainfall in 200)9			
Site	Amount	Normal	+/-	% of Normal
Harrison (NC AR)	61.23 (6)	45.20	+16.03	135%
Jonesboro (NE AR)	75.95 (1)	46.18	+29.77	164%
Fort Smith (WC AR)	56.46 (12)	43.87	+12.59	129%
Little Rock (C AR)	81.79 (1)	50.93	+30.86	161%
Texarkana (SW AR)	78.09 (1)	47.38	+30.71	165%
El Dorado (SC AR)	73.10 (3)	54.11	+18.99	135%
Pine Bluff (SE AR)	78.02 (2)	52.48	+25.54	149%

month at Little Rock (Pulaski County). The top five months are ranked.

Note: Numbers in parentheses after precipitation amounts indicate rankings. For example, (3) is the 3rd wettest year on record.

more for the year. Two sites reached 90 inches, and Leola (Grant County) had 100.05 inches, setting a state-wide record.

The months with the most rain were May (wettest on record), July (third wettest), September (second wettest) and October (wettest). There was rain across much of the region in December as well, but totals in the north-west were subpar (lowering the statewide rank). From May through October, Little Rock (Pulaski County), accounted for 73 percent of the annual total (60.04 of 81.79 inches). Normally, 41 percent of the total (21.03 of 50.93 inches) was measured during the months of May, July, September and October.

Following the June wind and hail events, flood stages were exceeded at numerous forecast points along area tributaries. Top 10 crests were reached on the Spring and Little Red Rivers. The lower White, Cache and Ouachita Rivers experienced moderate flooding for a prolonged period.

Two big events were noted in October. On the 8th/9th, two to four inches of rainfall was recorded across the state and in northern and western Arkansas more than six inches fell. On the 29th/30th, there were similar amounts reported across the eastern half of the state. Both events focused around stalled fronts, with precipitation essentially fixed along the fronts for hours at a time.

1

Rainfall was the most impressive in October, with 10 to more than 20 inches of rain across the state. It was the wettest month since January, 1937. In December, a powerful winter storm brought blizzard conditions from the Plains into the upper Midwest just before Christmas. In Arkansas, there was excessive rain in the same areas that were hit in late October. Some spots measured more than 8 inches of precipitation from the 22nd through the 25th of December.

Rainfall amounts exceeded 10 inches in parts of the south (mainly Calhoun and Ouachita Counties), with three to five inch totals. On October 16th, Little Rock Table 2— Top 10 Record Crests in 2009.

Location	River	Flood Stage (ft)	Crest (ft)	Date/ Time	Rank
Hardy (Sharp Co)	Spring	10	17.41	10/30	4
Imboden (Lawrence Co)	Spring	18	26.55	10/30	6
Judsonia (White Co)	Little Red	30	35.39 36.94	10/31 12/25	7 4
Benton (Saline Co)	Saline	18	27.63	12/24	4
Camden			39.12	05/10	10
(Ouachita Co)	Ouachita	26	41.16	12/28	6

(Pulaski County) received above normal precipitation for 2009. On that day, totals exceeded 51 inches for the year (50.93 inches is the annual average).



A convoy of utility trucks was headed into northern Arkansas along U.S. Highway 167 between Velvet Ridge (White County) and Pleasant Plains (Independence County) on 01/28/2009.

The largest Winter event unfolded on January 26th through the 28th. A paralyzing ice storm across the northern counties left behind 1 to 2 plus inches of freezing rain and sleet. At least 350,000 customers were left without power, and 30,000 utility poles were downed or snapped. The dire situation was summed up by Mel Coleman, CEO of North Arkansas Electric Cooperative, to those working to restore power (on the night of the 27th):

"In all of my years I have never seen anything that compares to the damage this storm has caused. From the beginning forecasts yesterday morning, it seemed the worst could happen, but we tried to believe it wouldn't happen. It did happen. I am sure your service areas look a lot like ours...I have yet to see a mature tree standing that was not severely damaged. Just opening the door to the outside sounds like a war zone, with the continuous sounds of trees and limbs breaking...like gunshots over the next hill. At this point we have no idea as to the extent the distribution system has been damaged, but it has to be bad...bad.

My closing thoughts for the night: I sincerely hope that each of you make it through this disaster stronger than when you went in. This event will take everything we have...from our spirit to our never ending dedication to our members...to get us through this. It will take days and possibly weeks...but it will come together. Good luck, stay safe & hang in there."

¹ "NWS Little Rock, AR - Little Rock Yearly Climate Summary (2009)/Pg1." *National Weather Service Southern Region Homepage*. Web. 30 June 2010. http://www.srh.noaa.gov/lzk/?n=2009.htm. All information under the OUF/OZF header came from this source.

A memorable event occurred on April 9th., when seven tornadoes were counted in southern and western Arkansas, including a tornado rated EF3 at Mena (Polk County). Three people lost their lives, and hundreds of homes and businesses were destroyed.¹

<u>NATIONAL FORESTS IN FLORIDA</u> - 2009 was a relatively quiet wildfire year, with 118 wildfires, the majority of these (92) being class A and B fires. This low fire occurrence was in large part due to an active prevention program as fire indices were elevated during several months. The largest fire (10,022 acres) was



A tornado (rated EF3) ripped through this residential area, and wrapped metal around an oak tree Mena (Polk County) on 04/09/2009.

the Juniper #10 Fire which occurred on the Ocala National Forest in March. Most of Florida was within a prolonged drought and winter freezes in the northern half of the state compounded the heavy dead and down fuel loading problem with frost deadened fuels.

<u>CHATTAHOOCHEE OCONEE NATIONAL FOREST</u> - 2009 began with the Chattahoochee-Oconee coming out of a previous year's drought situation. Fire occurrence was abnormally low for this area. During 2009, the forests experienced 38 wildfires for approximately 167 acres, which was down from the average number of 60 wildfires annually. The forest experienced no major fires for the year.

<u>DANIEL BOONE NATIONAL FOREST</u> - Calendar year 2009 was very wet throughout Eastern Kentucky, though temperatures averaged near normal. The 56.07 inches of precipitation recorded at Jackson was 6.69 inches above normal, and ranks 2009 as the 5th wettest year on record since climate records began there in 1981. It was also wet at London, where the 55.80 inches of precipitation recorded was 8.39 inches above normal. Due to London's longer period of recording, which dates back to 1954, 2009 was determined to be the 11th wettest year for London.

Although January 2009 was both colder and wetter than average, February was much drier and saw precipitation below normal by 1-2 inches. Jackson continued to see below normal precipitation during March and April, while London saw precipitation slightly above average in March and below average in April. Temperatures were near normal as spring began, but trended upward in April, reaching near 90 degrees by the end of the month. A period of low relative humidity values and dry weather between April 24th and 28th quickly gave way to wet weather in May when 4-7 inches of rainfall were recorded in the first 10 days of the month. This rain was followed by flash flooding and river flooding in some areas. Wetter than normal conditions continued from May through October with the exception of August, where below normal rainfall was observed on average across Eastern Kentucky. During this period, Jackson accumulated a rainfall surplus of 9.12 inches while London had a surplus of 10.89 inches. The summer months were cool, including a July that averaged 4 degrees below normal.

This wet and cool period was followed by a dry November, which was the driest November on record at Jackson. A snowy December ended 2009 with a month much like it began, colder and wetter than average, with a surplus of almost 2 inches of precipitation and temperatures 2 degrees below normal. Despite the cool summer months, both Jackson and London ended the year with near normal temperatures in 2009. With cool and moist weather through most of the year, wildfire activity was unremarkable and no major incidents oc-

¹ "NWS Little Rock, AR - Little Rock Yearly Climate Summary (2009)/Pg1." *National Weather Service Southern Region Homepage*. Web. 30 June 2010. http://www.srh.noaa.gov/lzk/?n=2009.htm. All information under the OUF/OZF header came from this source.

curred.

<u>LAND BETWEEN THE LAKES NRA</u> - Calendar Year 2009 was an extremely slow year for LBL. The months of January through April brought unusually wet conditions due to a long series of thunderstorms that led to unseasonably wet fuels. Only one wildfire occurred and burned 250 acres.

KISATCHIE NATIONAL FOREST - The Kisatchie Forest had a fire season that was typical of what the rest of the Region experienced. Fires were small and lasted only one burn period. The 2009 fire season was relatively quiet, with 43 wildfires burning 2,077 acres. Of these fires, 70% were arson caused and only four were in excess of 100 acres in size.

The Louisiana Interagency Coordination Center processed a total of 184 requests this year. This number represents 28 aircraft requests, 75 overhead requests, 46 equipment requests, and 35 requests for crew resources.

<u>NATIONAL FORESTS IN MISSISSIPPI</u> - The total number of fires and subsequent acres burned has decreased from last year. Prescribed burning accomplishments continue to lower the intensity level of wildfires on the National Forests in Mississippi. Forest prescribed burning exceeded the target by 9,011 acres. A total of 217,899 acres of prescribed burning was accomplished in both dormant and growing seasons. The two largest fire occurrences took place on the De Soto National Forest and on the Homochitto Ranger District. On the De Soto, the Anniversary Fire burned 288 acres after starting on January 23, 2009. This fire was arson caused and occurred within Forest Service land boundaries. The Rib Fire burned 273 acres and started on February 27, 2009. This fire was caused by arson and burned 273 acres of Forest Service lands.

Carolina Bay Wildfire on the Croatan Ranger District



NATIONAL FORESTS IN NORTH CAROLINA -

The National Forest in North Carolina (NFsNC) is comprised of 4 National Forests; the Pisgah, Nantahala, Uwharrie, and Croatan National Forest representing the coastal, piedmont and mountain regions. The Supervisor's Office is located in Asheville, North Carolina. There are three Job Corps Centers, Lyndon B. Johnson, Schenck, and Oconaluftee. There is one Genetic Resource Management Area (GRMA), Beech Creek, that provides superior genetic products for multiple agencies in five states. The National Forests in North Carolina are responsible for providing wildland fire suppression resources, all-risk management and support through cooperators in 24 of the one 100 counties throughout the

state.

The National Forests in North Carolina supports cooperators from the following agencies: US Fish and Wildlife Service, National Park Service, Bureau of Indian Affairs, Department of Defense, numerous Volunteer Fire Departments, and the North Carolina State Division of Forestry. Our cooperators have experienced an equally active fire season in addition to managing an aggressive fuels management program through prescribed burning. The National Forests in North Carolina has a 10 year fire occurrence averaging 116 fires for an average of 4,861 acres. The forest currently has a prescribed burn program that burns approximately 25,000 acres annually.



Carolina Bay Wildfire on the Croatan Ranger District

The 2009 fire season was an active year with the forest managing one Type 2 incident, Carolina Bay, for a cost of approximately two million dollars. In addition the forest managed two Type 3 incidents and numerous Type 4 and Type 5 incidents bringing the fire occurrence totals for CY09 to 91 fires for a total of 4,312 acres. North Carolina experienced an unusual summer fire season that started late May and continued through the first part of August, with a majority of the fires caused by arson sets. North Carolina experienced drought conditions through the mid-summer for the year of 2009.

The forest is home to the Asheville Interagency Hotshot Crew. This Type I crew training program provides concentrated fire management and leadership development opportunities for personnel from firefighting agencies with fire suppression responsibilities. Eighteen individuals from six geographic regions completed the program in 2009, which included 234 hours of classroom training. The crew worked on seven wildfires and assisted in the completion of 26 prescribed burns (in excess of 14,500 acres) during the 2009 season.

The NFsNC has partnered with the Schenck Job Corps and created an Advanced Fire Training Program at the center. This project is part of an initiative between the Department of Labor and the Department of Agriculture. The project involves various entities of the Fire Management programs throughout Regions 8 and 9. The primary goals and objectives for the program are to develop strong, well versed leaders and provide a valuable resource within the fire fighting community. This program has developed a Type II Initial Attack/ Prescribed Burn crew. The crew had 9 assignments with numerous extensions on each assignment in 2009.

<u>EL YUNQUE NATIONAL FOREST</u> - There were no fires to report from the El Yunque National Forest in CY 2009. There were no major weather events which caused disturbance to the El Yunque National Forest in CY 2009, although the forest was placed under one Tropical Storm Watch for TS Ana, and a Tropical Storm Warning for TS Erika.

<u>FRANCIS MARION & SUMTER NATIONAL FORESTS</u> - Due to regular precipitation intervals throughout the majority of the year, fire occurrence and initial attack activity remained low. Seasonal high temperatures which occurred May through September caused KBDI's to reach periodic seasonal highs between 600 -700 though conditions were moderated with regular occurring rain events. There were no lightning caused fires reported.

Though initial attack activity was light and fire occurrence was low, there were four class "D" fires which occurred in the winter/spring months on the forest. Three of these fires occurred in the month of April and were managed with a local Forest Service Type 3 Incident management Teams. The Type 3 incidents were fairly short duration incidents that were declared controlled within 10-14 days. The fires were managed and suppressed by local Forest Service resources, local Interagency engines, overhead, crews, and local contract dozers.

<u>SAVANNAH RIVER FOREST</u> - Fire occurrence was below the ten year average of 16 fires per year. This was due mainly to the lack of lighting caused fires between June and August. The largest fire was the Tail Fire at 79 acres that occurred on March 12, 2009. This was a very low intensity fire burning in bottomland hardwoods and went undetected for several days. About 42 % of the fires were the result of weapons practice at the SRS rifle range.

<u>CHEROKEE NATIONAL FOREST</u> - The Cherokee National Forest experienced a below average fire season for calendar year 2009. The number of arson fires have dropped considerably but remain the single most cause of wildfire followed closely by debris burning. The average size wildfire during 2009 was 22.50 acres.

Precipitation amounts in Tennessee were near normal as compared to below normal amounts in the previous

years, however, drought conditions prevailed during the spring fire season which hampered suppression activities as well as Prescribed Fire projects. There were no reported lightening fires as compared to a record amount in 2008. The forest has added two new RAWS weather stations which have provided a broader more accurate representation of current conditions as well as added a more detailed site specific forecast. The forest has placed a high priority on weather station maintenance and has assigned personnel to each of the weather stations to ensure compliance.

In 2009, the Cherokee IHC (hosted by CNF & based in Unicoi, TN), were assigned to wildfire incidents 86 days throughout the nation including a 14 day assignment in Alaska. They also served on the Station Fire in California where they received an extensive amount of media coverage due to their Southern Area representation. This crew has proved to be a premier Interagency Hotshot Crew while continuing to providing valuable training and experience for multiple agency personnel. The Davison River IA Crew utilized detail opportunities provided by the Cherokee IHC during the 2009 season which provided valuable experience for its crew members. Management of the Cherokee IHC completed a report showing the number of individuals who had served on the crew and moved into other opportunities both within and outside of the US Forest Service. This information begins in 2001 which was the first year for Cherokee IHC through October of 2009. Thirty-one individuals have accepted positions with the US Forest Service, 4 of these are current District Fire Management Officers, and 8 individuals have accepted positions with other agencies. This report shows the commitment to continued succession planning efforts throughout the US Forest Service. The crew was assigned to RX Burn assignments 18 days throughout the Region. These assignments assisted in the completion of 15,909 acres throughout Region 8. The superintendent of the Cherokee IHC is currently serving on the National IHC Steering Committee for both Regions 8 and 9 and will be a representative for Fire and Aviation Management on the National Workforce committee.

The prevention program on the forest continues to grow. The Cherokee NF is a member of the Wildfire Prevention Education Working Group (group with multiple agency representation), a newly developed group which has been instrumental in developing and providing oversight of several Prevention Teams. The Cherokee NF provided several personnel to assist with the statewide prevention programs. The forest has also participated in Smokey Bear programs throughout various school systems in east Tennessee. Kim Colemen who is an LEO on the Cherokee National Forest received the Silver Smokey Bear Award for her participation on the Kentucky Fire Prevention and Education Team. This award goes to those who have made outstanding contributions to wildfire prevention within a multi-state area.

<u>NATIONAL FOREST AND GRASSLANDS IN TEXAS</u> - The National Forest and Grasslands in Texas experienced an abnormal drying trend in the early spring that lasted through September of 2009. This situation prompted the request of severity funds for a two month period. The severity funding covered a Type 3 Helicopter stationed at Lufkin, TX, detailed Type 3 Incident Commander (ICT3) and Safety Officer, prevention materials and funds to cover local personnel salary and overtime. In addition to the listed resources, NFGT stationed a heavy air tanker at Waco, TX and established a temporary tanker base at Longview, TX. The majority of the large fires (greater than 300 acres) occurred just North and West of the Caddo and LBJ National Grasslands throughout 2009. The LBJ Grasslands (Wise County and Montague) continued to be significantly drier than the Caddo Grasslands (Fannin County) during CY 2009.

The greatest contribution NFGT made to the fires around the Grasslands and throughout the State was the ability to provide assistance and resources to the Texas Forest Service based out of Granbury, Texas. NFGT was able to provide various overhead personnel as well as an assortment of equipment and apparatus. Many of the positions were called upon for multiple assignments and also provided relief, enabling TFS to keep coverage when their employee's needed time off.

On April 9, 2009 the Grasslands experienced a Red Flag event in which multiple fires consumed 33,500 acres, 103 homes and 2 lives. Montage County (the North boundary of the LBJ Grasslands) had multiple fires occur, tapping out resources from the surrounding counties. Texas Forest Service requested the FMO and Firefighter from the Grasslands to establish a staging/dispatch area in Decatur, TX to check in and dispatched over 100 apparatus from the Dallas/Fort Worth area fire departments. This successful event of interagency cooperation between NFGT and Texas Forest Service has set the stage for future events

<u>GEORGE WASHINGTON AND JEFFERSON NATIONAL FORESTS</u> - A total of 28 fires burned 594 acres on forest lands, and an additional 194 acres on non-forest lands. This was down substantially from 2008, when 47 fires burned over 10,000 acres on the Forest. Arson and lightning were the leading specific causes of fires during the year, accounting for 6 and 4 fires respectively. The Augusta Interagency Hotshot Crew, hosted by the forest, spent 81 days assigned incidents in 2009. The crew completed six 14-day assignments, including back-to-back assignments in Alaska and California. The crew also assisted in over 9000 acres of prescribed burning, and 150 acres of mechanical fuels treatments, including work for the USFS in Massachusetts.

WEATHER SUMMARY

emperatures—The winter of 2009, extending from December 2008 to February 2009, featured near normal temperatures across much of the Southeastern US. Texas, Louisiana, and Oklahoma were the exceptions with temperatures about 1.5 to 2.5 Fahrenheit above normal. The relatively warm winter conditions were undoubtedly heavily influenced by the uncharacteristic warmth during February. During February 2009, temperatures were as much as 5 to 6 degrees Fahrenheit above normal in Texas and Oklahoma. Florida saw a cooler than normal February. January 2009 was also cooler than normal for much of central and southern Florida.

In January, a paralyzing ice storm swept across the Ozark National Forest in Arkansas, leaving behind 1 to 2 inches of freezing rain and sleet. A tornado struck the Ouachita National Forest in April, killing three people and leaving a trail of devastation through the forest and a local community.

By the spring of 2009, temperatures remained near normal across the Southeast. Arkansas was slightly below normal and Texas was slightly above normal. Much of the United States saw above normal temperatures in March in an area stretching from Arizona and New Mexico eastward to Alabama and northward to Iowa, Michigan, and The morning after a tornado swept through New York. Some areas of the Ohio Valley were as much as four to five degrees above normal. In contrast, April was decidedly cooler than normal across the Southeast, indeed over most of the United



the Ouachita National Forest, striking the town of Mena, Arkansas.

States. Temperatures during April were as much as three degrees below normal during April 2009. During May 2009, temperatures were much more of a "mixed bag". Oklahoma, Arkansas, and north Texas were cooler than normal by three degrees. Deep South Texas was about 2.5 degrees above normal and Florida was about a degree above normal.

Most of the United States experienced a cooler than average summer. The cooling was most pronounced from the Upper Midwest to the Ohio Valley. Across the Southeastern US; Florida, Texas, and South Carolina experienced a warmer than average summer. Even though June was warmer than normal for most of the Southeast, July and August were significantly cooler than normal months. During July and August, the southern half of Texas remained in above normal temperatures, but July was significantly cooler than normal for most of the Southeast. Florida and eastern North Carolina and eastern Virginia saw above normal temperatures in August, but the coolness remained in place throughout the Ohio and Tennessee River Valleys as well as through the Mississippi River Valley.

During Sep-Oct-Nov 2009 temperatures remained cooler than normal throughout the Central and Southern Plains by as much as 3 degrees. Only Florida saw significant warmth with the rest of the Southeast seeing temperatures near normal. October 2009 was much colder than normal. The Central and Southern Plains saw temperatures as much as 6 degrees below normal. The Appalachian Mountain Region saw anomalies of 2 to 3 degrees below normal. In the Southeastern United States, Florida and the immediate Gulf Coast were above normal in October. November was just about as diametrically opposite as possible. Only a small section of the Central Gulf Coast was cooler than normal with virtually all of the conterminous US in above normal temperatures during November. December represented another diametrical change with temperatures well below normal for most of the US. Even Deep South Texas saw below normal temperatures in December and only Florida saw temperatures slightly above normal.

Source Cited.

http://www.ncdc.noaa.gov/sotc/?report=national&year=2009&month=13&submitted=Get+Report#temp http://www.cpc.ncep.noaa.gov/products/analysis monitoring/regional monitoring/1-month-archive.shtml http://www.esrl.noaa.gov/psd/data/usclimdivs/

Precipitation—Based on data collected from January 2009 to December 2009, the contiguous United States experienced the 18th wettest year in the 115 years of record keeping. (Source Cited: <u>http://www.ncdc.noaa.gov/sotc/?report=national&year=2009&month=13&submitted=Get+Report#precip</u>). Even though the winter of 2008-2009 was drier than normal for much of the Southeastern US, some above normal conditions did occur from northern Alabama to eastern Kentucky. Most of this can be attributed to a wetter than normal December 2008 because both January and February 2009 saw below normal precipitation across most of the Southeastern US.

Rainfall patterns began to change in March 2009 and the rains returned. Lake levels that were low and creating water rationing issues in Georgia began to fill up and recover. While pockets of below normal rainfall were present in Kentucky and Florida in March; and in Mississippi in April, the rest of the Southeast was experiencing at least a "normal" amount of rainfall. By the time May arrived, only Texas and western Oklahoma were seeing below normal rainfall while the rest of the Southeast was seeing well above normal rainfall. Southern Arkansas and northern Florida saw positive departures from normal on the order of 6 or more inches.

The summer of 2009 (June-July-August) was characterized by below normal precipitation from Deep South Texas, along the Gulf Coast, and northward through the Carolinas. The Ohio, Tennessee, and Mississippi River Valleys saw above normal rainfall during this time. July featured above normal rainfall from eastern Texas to western Kentucky with some areas of Arkansas as much as six inches above normal for the month. The anomalies were more evenly distributed across the Southeast during August with Georgia and Alabama seeing slightly above normal rainfall and the Carolinas seeing slightly below normal rainfall.

September, October, and November 2009 saw generally normal or above normal rainfall. Only Florida ended the autumn with below normal rainfall. Individually, September was exceptionally wet from Georgia westward to Texas. September 2009 will be remembered for its 20 inch rain event in the Atlanta Metro Area that displaced numerous families and at least one school. October 2009 saw large positive anomalies across a wide area stretching from Eastern Texas to Northern Illinois and eastward to the Appalachian Mountains. Florida and Northeastern North Carolina were below normal in October. Most of the positive anomalies during October were on the order of six or more inches. November of 2009 saw an area of below normal precipitation develop from Louisiana to Kentucky. During this time however, positive anomalies were present from eastern Virginia southward to southern Alabama. During December, virtually all of the Southeastern US saw well above normal rainfall. The only exception of note was central and eastern Texas were precipitation was virtually normal.

Tropical Activity

The 2009 North Atlantic hurricane season had nine named storms, three hurricanes, and two major hurricanes. This is the fewest number of hurricanes for a North Atlantic season since 1997. An average season has 11 named storms, 6 hurricanes, and 2 major hurricanes. Only 2 tropical storms and no hurricanes made landfall in the U.S. for the season. Ida made landfall on November 10 on Dauphin Island and Claudette made landfall on August 17 near Fort Walton Beach. Claudette's maximum winds were only 40 mph at landfall and caused only minimal damage. This is the 13th time that no hurricanes have struck the U.S. during a hurricane season (June-November) since 1943. A map of all 2009 tracks can be found at: <u>http://</u><u>www1.ncdc.noaa.gov/pub/data/cmb/images/hurricane/2009/annual/2009atl_tctracks.jpg</u> and a smaller version of this map is included here. Official reports on individual tropical events can be found at: <u>http://</u><u>www.nhc.noaa.gov/2009atlan.shtml</u>.

Source Cited:

http://www.ncdc.noaa.gov/sotc/?report=tropical-cyclones&year=2009&month=13&submitted=Get+Report



El Niño/Southern Oscillation Conditions—During the opening months of 2009, La Niña was in effect with below average sea surface temperatures in the typical Niño regions. Some subsurface warming of the Pacific waters was occurring as early as December 2008. During March 2009, the La Niña episode was showing signs of weakening and subsurface waters showed some cooling. The warming trend of surface waters continued in April and the subsurface waters showed some gradual warming as well. During April 2009, the subsurface anomalies were positive for the first time since August 2008.

May 2009 was considered neutral even though sea surface temperatures in the equatorial Pacific climbed. The subsurface waters were also warming during May. June 2009 saw the return of El Niño as sea surface temperatures warmed for the sixth consecutive month. Subsurface oceanic waters were also increasing during June 2009. The El Niño episode strengthened during July even though the subsurface waters lost some heat content. Both the surface and subsurface waters were above normal by at least 0.5°C. El Niño persisted during August even though sea surface temperatures fell slightly. The subsurface waters warmed slightly during the latter half of the month. Sea surface temperatures in the Equatorial Pacific warmed as did the subsurface waters. These conditions also persisted into and through October 2009.

The El Niño event that began in the summer of 2009 did persist through the winter of 2009-2010. It actually peaked in January or February of 2010, before beginning to transition toward neutral in March 2010.

Sources Cited: <u>http://www.ncdc.noaa.gov/sotc/?report=enso&year=2009&month=1,</u> <u>http://www.ncdc.noaa.gov/sotc/?report=enso&year=2009&month=2,</u> etc <u>http://www.cpc.noaa.gov/products/expert_assessment/ENSO_DD_archive.shtml</u>

-5.0

50







































5.0







SIGNIFICANT PRESCRIBED FIRE ACCOMPLISHMENTS

NATIONAL FORESTS IN ALA-BAMA

The National Forests in Alabama struggled to accomplish the prescribed burn program for 2009 due to near record setting days with rain during our primary prescribe burn season. The forests accomplished a total of 97,663 prescribed burn acres. 2009 was the first year of the forests contract with Helicopter Express. Unfortunately, the helicopter spent the majority of its 92 day contract period sitting on the ground while the rains continue.



2009 Liberty Hill Aerial Ignition Prescribed Burn National Forests in Alabama

	2009 Prescribed Fire Activity												
Forest	Hazardo Treat			Resource tment	Total Prescribed	Total							
TOTEST	Prescribed Fire	Mechanical	Prescribed Fire	Mechanical	Fire Acres	Acres Treated							
ALF	93,636	0	4,027	9,556	4,027	107,219							
OUF-OZF	150,412	0	35,504	46,051	185,916	231,967							
FNF	172,069	3,869	1,376	0	173,445	177,314							
CHF	0	0	27,089	0	27,089	27,089							
DBF	15,459	0	535	0	15,994	15,994							
LBF	3,200	0	0	0	0	3,200							
KIF	126,910	0	12,228	12,401	139,138	141,539							
MNF	223,058	0	9,281	18,583	0	242,562							
NFC	0	0	15,539	1,237	15,539	15,539							
FM&S	59,666	9	9,104	0	68,770	68,770							
SRS	0	0	27,525	0	27,525	27,525							
CNF	20,391	0	0	0	20,391	20,391							
NFGT	0	0	136,862	0	136,862	136,862							
VAF	15,412	6	0	0	15,412	15,412							

Table 3— 2009 Prescribed Fire Activity

<u>OUACHITA AND OZARK-ST. FRANCIS NATIONAL FORESTS</u> - The Arkansas Forestry Commission (AFC), accomplishment of prescribed burning under Steven's Act authority was significantly affected by the drought of 2005-06. The state's completion of over 12,000 acres in 2005, and just over 4,300 acres in 2006, increased to 9430 acres in 2007 then dropped to 2,564 acres in 2008. In 2009, AFC completed 3,176 acres under this authority. FY2009 was the second year of full implementation of the Arkansas Smoke Management Program. The National Forests prescribe burn met compliance with this program and agency regulations. The forests have aggressively undertaken efforts to better notify and inform the public about when and where prescribed burns are taking place and both model and monitor smoke plumes.

Modeling is accomplished via the use of sophisticated particle, puff and plume models developed by researchers. Two key models used were, VSMOKE and HYSPLIT Ready. VSMOKE is a plume model used primarily in the planning prescribed burns and to address expected emissions and potential health effects. Users input weather and fuels data via a PC software computer program. Outputs include a graphic depicting relative concentration of pollutants; a computer generated narrative describing potential health effects and different graphs depicting model data outputs. HSYPLIT Ready is a web-based model developed by NOAA and is both a particle and a puff model. Users supply data such as latitude and longitude (location) along with the time emissions are expected to commence and end. The output is a dynamic animated graphic that can show expected plume trajectory over time. The model is also capable of generating emissions information. In 2008, over one hundred individual HYSPLIT model runs were made on the day of burns to help discern smoke trajectories and potential smoke-sensitive beneath modeled plumes. District Fire Management Officers and Prescribed Burn Bosses (RXB2), attended Dr. Gary Achtemeier's presentation on using the night time smoke model PB Piedmont. This session, which the forests hosted in January, at Hot Springs, Arkansas, was beneficial to decision-makers for anticipating time/location of smoke-related problems associated with night time smoke dispersal.

In addition to modeling efforts, prescribed burns are monitored remotely using both real-time and near-realtime aerial observations of smoke movement, satellite data, webcams, air quality monitor outputs and webapplications capable of detecting visible smoke plumes. The forest also deployed portable smoke monitoring equipment to assess smoke concentrations. Two of the devices had satellite uplinks that allowing for both real-time data analysis and the ability to archive data for future analysis.

Both modeling and monitoring efforts were effective in helping identify and mitigate smoke impacts. While there were some complaints received from the public in FY2009, they were far fewer than in years past.

NATIONAL FORESTS IN FLORIDA — The National Forests in Florida hosted several training sessions including M-410 - Facilitative Instructor, Fire Resource Advisor Training, I-400 - Advanced ICS, S-130/190 for the Historically Black College and University students, HYSplit Training and S-290 - Intermediate Fire Behavior. 2009 was also a successful year for the Prescribed Fire Training Center in Tallahassee, Florida.



Prescribed Fire Training Center—Students burning on the Osceola NF in Florida.

There were seven modules in January and February sessions and five in the March session, the April session was cancelled due to high drought conditions. Total number of participants for 2009 was 105 from the Forest Service, BLM, USFWS, NPS, BIA, State Agencies and non governmental organizations. Seventy-one of the participants were sponsored by the USFS. Additionally we had four international participants who were sponsored by The Nature Conservancy and came from the Dominican Republic and Mexico. Danny Cedano, from the Apalachicola National Forest, was an assistant crew leader to this module and provided interpreter skills and quality training to the module. Crews burned all over the south and for the first time started burning in South Carolina with the Sumter National Forest. Another new Cooperator for the Center was the



National Forest in Florida, prescribed burn aerial ignition

Georgia Forestry Commission (GFC) that proved to be a successful new alliance. Total acres treated over all three sessions was 62,277 acres on Federal Lands and 15,915 on non-Federal lands. Crews burned 11, 290 acres on the Apalachicola NF (2,829 WUI), 717 WUI acres on the Ocala NF and 3,370 acres on the Oscela NF (100 WUI).

A total of 29 RXB2 taskbooks, 7 RXB3, 45 FIRB, 9 ENGB and 25 FEMO taskbooks were worked on throughout the sessions. The Prescribed Fire Training Center also held the Agency Administrator workshop with 11 participants. This workshop qualifies USFS participants for the Line Officer Duties and will continue to be offered in future years. There was also a new course, the Resource Workshop, held in the fall that was successful. This workshop was offered for individuals in non-fire disciplines who were interested in the use of fire to benefit their resource area, such as wildlife biologists, botanists, recreation specialists, etc. The Prescribed Fire Training Center filled 1 vacancy, Miranda Stuart accepted the Fire Operations Specialist position, and had 1 retirement, Jim Durrwachter, the Director of the Director of the Prescribed Fire Training Center.



Prescribed burning on the Cumberland Ranger District, 3/23/2009.



Prescribed burning on the Cumberland Ranger District, 4/18/2009.

<u>CHATTAHOOCHEE-OCONEE NATIONAL FOREST</u> - The Chattahoochee-Oconee accomplished 27,089 acres of prescribed fire in 2009. In addition, the Georgia Forestry Commission accomplished 4,177 acres under Community Protection Grant money.

<u>DANIEL BOONE NATIONAL FOREST</u> - Prescribed fire accomplishments were significantly reduced from 2008 to 2009, with only 9,773 acres burned. This amount of prescribed burning, left the forest at approximately 60% of the 2008 level.

<u>LAND BETWEEN THE LAKES NRA</u> - Calendar Year 2009 was a slow year for LBL. It's prescribed burning program was greatly curtailed due to recovery emphasis from a catastrophic ice storm and administrative issues. The NRA accomplished less than 3,200 acres of prescribed burning.

Due to the ice storm clean up and ARRA focus, the NRA's firefighters were unavailable to assist other units with prescribed burning, however we did manage to schedule in a significant aerial ignition in one of our Oak Grassland Restoration Demonstration Areas. This burn was part of our continuing effort to restore over 10,000 acres to native fire dependent oak-hickory woodland/savanna cover types.

THE KISATCHIE NATIONAL FOREST - The prescribed fire season started off in November. The forest started burning right after Thanksgiving and continued through April. We accomplished 126,910 acres in dormant season, growing season, and KV burning. The forest accomplished 11,914 acres of non-fire target for a total of 139,138 acres of combined target. The total number of Position Task Books that were initiated in FY 2009 was 28.

<u>NATIONAL FORESTS IN MISSISSIPPI</u> - A total of 214,000 acres were treated with the application of prescribed fire in 2009. There was no fire use data applicable to current date. The De Soto Ranger District completed the most prescribed burned acres- a total of 78,000 toward the overall NF's MS target. Several Type-3 Prescribed Fire Burn Bosses across the forest were given the opportunity to "shadow" under qualified Type-2 Burn Bosses.

<u>NATIONAL FORESTS IN NORTH CAROLINA</u>-This year the forest completed 24,536 acres of prescribed fire/fuels treatment. The Croatan, Uwharrie and Nantahala units all planned and implemented fuel treatments utilizing the Wyden Amendment, thus allowing agreements with private land owners along National Forest boundaries. Through the Asheville IHC training program the Forest hosted three Rx training session S-234 (Firing/Ignition Operations), S-230, Single Resource Boss (Firing Boss) and L-280 Leadership Development.

EL YUNQUE NATIONAL FOREST - N/A

<u>FRANCIS MARION AND SUMTER NATIONAL FORESTS</u> - The majority of 2009 acres were achieved through aerial ignition by the use of two exclusive use helicopters based at the Seed Orchard Helibase on the Francis Marion NF and Greenwood Helibase on the Sumter NF. Total flight hours related to prescribed fire activities are listed below.

Seed Orchard Helibase	93.3 Hrs.	Feb. 1 – May 31 Nov. 1-30
Greenwood Helibase	71.8 Hrs.	March 1 through April 26

2009 was the third year the Exclusive Use Greenwood Helicopter Contract was utilized for the Sumter Zone. To improve efficiency, the Contract was modified to change the mandatory availability period from February 22 thru April 19 to March 1 thru April 26 (57 days), this optimized helicopter availability and use during the best seasonal burning conditions on the Forest. Off forest detailers were used as HECM/PLDO's to assist two local (forest employees) Helicopter Managers in the management of Sumter helicopter operations.

The total CY 2009 prescribed fire accomplishment on the forest was 68,770 acres.

Approximately 6 Forest Service detailers were utilized from various western forests to serve as RXB2 and FIRB's from early March through mid April. In addition, there were 2 Prescribed Burn modules utilized from the Interagency Prescribed Fire Training Center for approximately 10 days during the month of

March.On the Francis Marion NF residual smoke in the urban interface continues to challenge prescribed fire operations requiring smoke mitigation measures such as; night patrols, occasional road closures, and signage for off Forest detailers from the Boise National Forest (HECM/PLDO's) assisted with helicopter operations at the Seed Orchard Helibase from mid February through April 30. District qualified Helicopter Managers provided relief on days off for the permanent Manager. The Francis Marion also utilized several off forest detailers from western forests in the capacity of FIRB, ENGB from February through April.

<u>SAVANNAH RIVER FOREST</u> - 2009 was another record setting year in regards to prescribed fire. Savannah River burned 27,525 acres mainly in our primary Red Cockaded Woodpecker management area. The



RCW management are also coincides with the majority of Savannah River Site— 2009 Prescribed Fire Proour urban interface thus accomplishing multiple objectives.

<u>CHEROKEE NATIONAL FOREST</u> — The Cherokee National Forest is continually challenged with weather and environmental factors to meet prescribed burning targets. The Forest utilizes a combined effort between the North and South Zones in sharing resources to accomplish hazardous fuels targets and meet objectives with limited burning windows. The Cherokee IHC were utilized on the forest for prescribed burning as well as several prescribed burning targets. The ship is based at the Copper Hill Helibase, Copper Hill, Tennessee. The ship is staffed with predominately Cherokee NF employees. This has resulted in excellent training opportunities as well as a cost savings to the program. The location and operations of this Helibase continues to be instrumental in the success of the RX fire program as well as provide a valuable wildfire resource to neighboring forests and states. The Forest has recognized the RXB2 position as a critical need. Through training opportunities and mentoring the Forest now has 10 employees qualified as RXB2.

<u>NATIONAL FORESTS AND GRASSLAND IN TEXAS</u> — The prescribed fire season of 2009 was a great success for the National Forests and Grasslands in Texas. NFGT not only met but exceeded the assigned target acres. This was accomplished even though Rx burning stopped while county burn bans were in place. The most cost effective and efficient means were considered on every Rx burn. Firefighter and public safety was at all times made top priority. One notable event for NFGT 2009 would be the record of 8,745 acres treated on the Caddo Grasslands. Through training and development the NFGT certified 5 FIRB, 3 FFT1 and 6 FFT2 in FY09.

<u>GEORGE WASHINGTON AND JEFFERSON NATIONAL FORESTS</u> — Good prescribed burning conditions existed for the better part of the spring, with the Forest's accomplishing nearly 15,000 acres by late April. However, 8 human-caused wildfires occurred between April 24 and May 2, followed by substantial rain. This prevented completion of approximately 5000 acres that had been slated to burn during that time. One summer burn was ignited with limited success as it was rained out before completion. Six acres of HFRA mechanical treatment was completed around the historic Warwick Mansion in Hidden Valley on the Warm Springs Ranger District. In addition to the hazardous fuels accomplishments, the Forests burned another 316 acres for wildlife habitat improvement, and completed 5157 acres of integrated vegetation management treatments.

SIGNIFICANT IMPROVEMENT IN COST EFFECTIVENESS

<u>ATIONAL FORESTS IN ALABAMA</u> — The Forests continue to control costs by reducing dependence on plowed firelines in favor of natural and man made features for firelines. The increased use of Wyden Amendment landowner agreements has reduced the need for installation of some dozer firelines and helps build a positive relationship with our neighbors.

The Forests acquires off-forest personnel to augment Forest personnel in accomplishing our prescribed fire program. We consistently utilize Interagency Hotshot Crews, Prescribe Fire Training Center modules, Smokejumper modules brought in by the Regional Office, and detailers brought in as part of a cooperative effort with western Forests. Economic efficiency is gained as some modules/crews/detailers provide some or all of their own funding. These detailers can be acquired, rescheduled, or released on an as-needed basis

<u>OUACHITA AND OZARK-ST FRANCIS NATIONAL FORESTS</u> - Successfully implemented over 2,000 acres of prescribed burning for the Arkansas National Guard at Camp Robinson, AR and Little Rock Air Force Base at Jacksonville, AR. 88 wildfires were successfully suppressed while holding total acres burned to 3398 acres on both forests. Both the Ozark-St. Francis and the Ouachita NFs targets of 100% in Wildland Fire Hazardous Fuels (WFHF) were attained. Comprehensive validation of HYSPLIT smoke modeling, combined with other methodologies, continued .

<u>NATIONAL FORESTS IN FLORIDA</u> - Maximizing the burn blocks size and the use of AMR (appropriate management response), continue to be Florida's major tools in maintaining a cost effective program. Florida NF's also shared a helicopter with the Okefenokee National Wildlife Refuge. This cost sharing provided for the use of an additional helicopter for the three Forests while keeping costs low. The use of aerial ignition allows the Forests to burn large blocks with minimum preparation work such as plowing lines.

<u>CHATTAHOOCHEE-OCONEE NATIONAL FOREST</u> - The Chattahoochee-Oconee NF initiated two additional agreements in an effort to strengthen our capacity in prescribed burning and fire preparedness. Fire Management on the Forest, looked at the opportunity to increase interagency participation throughout the state and to leverage training opportunities for personnel working on task books or needing additional experience. After analyzing the cost/benefits, we entered into a 'Sister Forest' reciprocating agreement with the Blackhills of South Dakota NF and six other resource management agencies in Georgia, that consist of USFWS,GFC,DNR,TNC and Project Orianne.

<u>DANIEL BOONE NF</u> - N/A <u>LAND BETWEEN THE LAKES</u> - N/A

<u>THE KISATCHIE NATIONAL FOREST</u> - The Forest continues to utilize every opportunity to conduct a feasible burn program. We have used Exclusive Use, CWN, and the Regional helicopters to achieve program goals.

The Forest continues to utilize every opportunity to conduct a feasible burn program. We have used Exclusive Use, CWN, and the Regional helicopters to achieve program goals. Succession planning for personnel who can effectively manage costs is in process with establishment of four new WG positions on the forest, two of which have been filled. The Forest has issued an outreach announcement for a full-time HMGB position for the helicopter program safety and oversight.

<u>NATIONAL FORESTS IN MISSISSIPPI</u> - Fuels reduction, suppression, and prescribed burn program activities continue to reduce the threat of wildfire intensity throughout National Forest lands in Mississippi. The Jackson Hotshots assisted with prescribed burning activities on all of the NF's MS ranger districts. The Hotshots were completely self-sufficient on per diem, transportation, and equipment costs. In the past, the U.S. Forest Service has accommodated these costs.

NATIONAL FORESTS IN NORTH CAROLINA - The Forest remains prudent in staffing and coverage by working with Districts to provide the most efficient use of resources across the Forest. The National Forest in North Carolina has a Multi-Agency Cooperative Wildland Fire Management Agreement which facilitates the coordination and exchange of personnel, equipment, supplies, services and funds. Each agency is responsible for initial attack resources in the first operational period (24 hrs) in addressing cost efficiency. Forest resources suppressed 91 fires utilizing this agreement thus improving cost efficiency for respective agencies. In addition, the Fire Management organization supported and monitored training assignments in the local area to reduce the overall cost associated with travel. The new ideology of utilizing the appropriate management response is being applied to most of our day to day decision processes.

The NFsNC developed a dedicated Type 3 Incident Management Team (IMT) for the first time in 2009. This IMT consisted of employees from all units on the NFsNC. The Graphite Fire on the Grandfather Ranger District was the first fire staffed by this team. By providing personnel from the NFsNC, cost savings were realized in resource mobilization. Because resources were from the local areas it took less time to get the team in place which increased efficiency and possible prevented the fire from escalating to a Type 2 level. Also, less travel costs were realized as local team members did not incur costs that out-of-area personnel might have in getting to the incident.

EL YUNQUE NATIONAL FOREST - N/A

FRANCIS MARION AND SUMTER NATIONAL FORESTS

- Utilized two local PFT employees on the Sumter NF to serve as Helicopter Manager on the Greenwood Exclusive Use Helicopter Contract from March 1 thru April 26. This reduced the number of detailers required to manage the helicopter operations on the Sumter NF by approximately four detailers.
- Continued efforts to reduce extended stand-by staffing of flight crews located at both helibases.
- Reduced detailer travel costs by negotiating longer term assignments (30 day) for ground and aviation program support personnel. Utilized ground resources available from Interagency Prescribed Fire Training Center.
- Continued use of militia resources for prescribed burning on the Forest.
- Reduced flight time between fuel cycles by utilizing established helispots for aerial ignition and reduced number of recon flights during the prescribed fire season.
- Combined helicopter missions to maximize use efficiency.
- Utilization of the Sumter Zone Fire Organization on the Sumter NF for Fire Management Operations. The Sumter Zone is comprised of three Ranger Districts collectively working together the achieve Forest Fire Management goals and objectives.
- Modified the Greenwood exclusive use helicopter contract by changing the mandatory availability period from February 18 to April 19 to March 1 thru April 26 (57 days) to maximize helicopter availability for peak prescribed burning conditions in the months of March and April.
- On the Francis Marion NF, established a local agreement with the Bethera Fire Dept. to rent quarters w/ cooking facilities located at the fire station for detailers at approximately \$20.00/day cost to the government.

<u>SAVANNAH RIVER FOREST</u> - We continued to utilize the Regional Helicopter 106Z and Pilots Larry Roberts and Boyce Bingham on a call when needed basis. We continue to expand burn block size utilizing roads instead of constructing fire lines.

<u>CHEROKEE NATIONAL FOREST</u> - The Cherokee NF has made an effort to complete multiple prescribed burns on a single day to better utilize aerial resources. The newly implemented zone organization has proved to be very cost effective in allowing forest resources to be shared across district boundaries to better utilize ground based resources. This has also been a good training opportunity for forest personnel. The Cherokee NF has a well established Type 3 Incident Management Team.

The IMT is comprised of highly skilled individuals throughout the forest and has been activated on several fires throughout the Forest. With 24 employees on the 3 Southern Area IMT's many personnel are participating in the Type III organization while being both Type I and Type 2 qualified. The Cherokee has adequate depth in planning positions, finance positions, and aviation positions. These are critical shortages nationally as well as regionally. The forest has identified the ICT3 position as another shortage and has worked diligently to develop individuals in this capacity; the Forest now has 5 qualified ICT3's and 2 ICT3 Trainees. These positions have been utilized on and off Forest assignments to assist other Southern Region Forests

<u>NATIONAL FORESTS AND GRASSLAND IN TEXAS</u> - Given the possible declining budget situation on a large scale, the National Forests and Grasslands in Texas took a realistic and proactive approach at cost effective options within the fire program. NFGT relies on detail personnel throughout the burn season to meet burn targets. Historically NFGT would pay all cost associated with the detailers. In 2009 these assignments were negotiated with the detailer's home units to absorb some of the cost. For several of the detailers the base 8's would be paid or a portion of the travel would be paid for by the sending unit. When local burn and weather conditions allowed, more collaboration between the districts took place with the sharing of personnel and equipment.

One notable cost saving, logistical arrangement implemented on the Sam Houston National Forests is the utilization of a surplus FEMA trailer. This trailer is parked at a local forest campground and used to house detail personnel. The Sam Houston has also created a "bunk house" out of unused office space to house detailers as well. With these options available a significant savings is created in the lack of hotel costs alone.

<u>GEORGE WASHINGTON AND JEFFERSON NATIONAL FORESTS</u> - Utilized two local PFT employees on the Sumter NF to serve as Helicopter Manager. The forest also managed the few large fires that occurred with a continued emphasis on a cost containment management approach. Management practices were incorporated into management and incident objectives which were specifically designed to increase firefighter & public safety and reduce unnecessary incident expenses.

NOTEWORTHY INSTANCES OF COOPERATION

<u>NATIONAL FORESTS IN ALABAMA</u> - The Alabama Wildland Fire Academy is sponsored cooperatively by the National Forests in Alabama, City of Pelham Fire Department, and the Alabama Forestry

Commission. The academy offered 19 NWCG courses with students attending from federal, state, and city agencies, as well as volunteer fire departments from across the country. 510 NWCG Certificates of Completion were issued to students.

The National Forests in Alabama has a close working relationship with the Alabama Forestry Commission. Cooperation with the State on wildfire suppression at the county/district level was excellent; federal and state personnel and equipment regularly assist the other as needed. Forest personnel worked with the Alabama Forestry Commission and local community groups to accomplish fire prevention education and training in fire hazard reduction. In order to increase local fire protection capability, miscellaneous surplus/excess federal property was transferred to local Volunteer Fire Departments through cooperative efforts with the Alabama Forestry Commission.



Fall 2009 Talladega NASCAR Race, Smokey Bear with the Aarons Cheerleaders

<u>OUACHITA AND OZARK-ST FRANCIS NATIONAL FORESTS</u> - Forty communities in Arkansas were recognized for Fire Wise Efforts in 2009. The Arkansas Forestry Commission received the 2009 Fire Wise Leadership Award from the National Fire Protection Association for participation in the Fire Wise Program. Forest Service employees serve on the board for many of these Fire Wise Community developments.

Both the Ouachita Job Corps and the Cass Job Corps Centers provided Job Corps enrollees for local and off-forest suppression and prescribed fire assignments.

We continue our cooperative efforts with Native American Tribes in Oklahoma to train, equip and mobilize emergency wild land fire crews. There is an ongoing effort to train and certify leadership candidates from the tribes to serve as Squad Bosses and Crew Bosses. Through participating agreements these wildfire crews also serve as Heritage Resource Technicians providing many person hours of on the ground survey work in preparation for district resource management projects. Through a \$500,000 participating agreement administered by the Ozark-St. Francis NFs, the Caddo Nation has provided heritage resource work to the National Forest and Grasslands in TX. Wild land fire training is a planned interagency effort involving all wild land agencies in Arkansas and Oklahoma. We also continue our partnership with Arkansas Tech University providing wild land fire training to future resource managers in the emergency management, fish and wildlife, recreation and parks departments at the college.

2009 marked the fifth annual Wild land Fire Academy hosted by Lake Point Conference Center at Arkansas Tech University. Approximately 375 participants, mostly from Arkansas, Oklahoma, and Missouri, registered to attend the Academy. This two-week event provides wild land firefighters both classroom training and field exercises to prepare the firefighters with new skills and knowledge for their jobs. Approximately 100 agency instructors and support personnel volunteer to provide professional training and mentoring to attendees.

Participating agencies in the Arkansas River Valley Wild land Fire Academy include:

U.S. Forest Service, Arkansas Forestry Commission, Arkansas Game and Fish Commission, The Nature Conservancy, Oklahoma Department of Forestry, Department of Defense Personnel, AR Department of Parks and Tourism, the National Weather Service, and the Oklahoma Native American tribes sponsored by the U.S. Forest Service which include the Apache Tribe, Caddo Nation, Choctaw Nation, Cherokee Nation, Kiowa Nation, and the Iowa Tribe of Oklahoma.

Agencies and National Forest personnel attending the academy included:

- National Forests and Grasslands in Texas
- Kisatchie National Forest
- National Forests in Mississippi
- Mark Twain National Forest
- Cherokee National Forest
- Daniel Boone Forest
- National Park Service
- The Nature Conservancy
- Arkansas Department of Environmental Quality
- Arkansas Tech University
- U. S. Fish and Wildlife Service
- Bureau of Indian Affairs
- Oklahoma Department of Forestry

<u>THE NATIONAL FORESTS IN FLORIDA</u> — The National Forests in Florida partnered with the Florida Division of Forestry (DOF), the Baker County Fire Department and the Community of Taylor to develop a Community Wildfire Protection Plan (CWPP) in 2006. This plan was designed to help protect the small rural community of Taylor, which is surrounded by hundreds of in 2009 that brought together the Forest Service, DOF, the local fire department and homeowners to work around houses to improve their defensible space. The work day was a complete success and plans are to make the cleanup and annual event. Projects such as community education and hazardous fuel reduction need to be completed regularly and involve the coordinated effort of both the residents of Taylor and the partners they have in the wildland and structural fire community.

The U.S. Forest Service, in partnership with the Tallahassee Museum, celebrated Smokey Bear's 65th birthday at the museum. The event attracted nearly 2,000 people and received pre- and post coverage by the Florida Public Radio Network (WFSU), Tallahassee Democrat newspaper and WTXL TV-27 (ABC) and other local media. The event included free admission to the museum, guided tours through the museum's "Wild Florida Trail" with GPS tracking of a toy bear, photo opportunities with Smokey Bear, face painting by the Florida Division of Forestry "Fire Prevention Clowns," Florida Black Bear paw print craft

table, fire suppression equipment displays, prescribed fire ignition demonstrations, games and prize giveaways. Other partner organizations included the Florida Division of Forestry, The Home Depot and Wakulla Bank.

The National Forests in Florida partnered with many organizations during the month of October to recognize "Fire Prevention Awareness Week". Some thousands of acres of federal, state and private timberlands and has been affected by several large wildfires in the past. The community has since, through hard work,

been designated a Fire Wise Community. A community workday was scheduled e of the fall events included a Fire Prevention Awareness event at the Home Depot, the Forgotten Coast Black Bear Festival, and the Ocala OHV Trails Jamboree.

<u>THE CHATTAHOOCHEE-OCONEE NATIONAL FORESTS</u> - In 2009, the Chattahoochee -Oconee increased fire prevention efforts with the addition of CWPP's in Chattooga and Fannin counties. We also added Fire Wise/USA Communities at Walnut Mountain, Ellijay and Trahlyta Estates in Dahlonega Ga. These efforts were conducted jointly with the Georgia Forestry Commission.

Training completed in 2009 included S-211 (18 students), S-248 (6 student), IC sand tables w/GFC (28 participants), S-234 (27students), WCT



Administrators (10 participants), Multiple refreshers (Spring-3 sessions). Crosscut Saw for Firefighters (7 students), Chain Saw for SRS-Athens (6 students). S-130/190 On-line course and fire field day (5 students). Southern Region Advanced Fire and Aviation Academy-Hosted Fire Effects Monitoring course on Conasauga RD in June. S-232 Dozer Boss (19 participants), Helicopter Refresher (28 participants), PLDO refresher training (15 participants) and Southern Blue Ridge Fire Learning Network meeting in Dillard, Ga.

DANIEL BOONE NATIONAL FOREST - The Daniel Boone NF collaborated with the Cherokee NF, Land Between The Lakes NRA, the Big South Fork NRRA, Region 4 of the USFWS, and the Kentucky and Tennessee Divisions of Forestry to present the 7th annual TN-KY Wildland Fire Academy at Bell Buckle, TN. The DBNF-sponsored courses were S-270 and S-330. In addition to the academy courses, local districts conducted basic fire training and refresher courses throughout the year.

The Cumberland Ranger District continued to work with the University of Kentucky to conduct prescribed burn research on the Forest. Here is an example of an interpretive sign used along burn area perimeters near public access routes.

LAND BETWEEN THE LAKES NATIONAL RECREATION AREA - NRA firefighters were instrumental in organizing and safely recovering from the January 2009 ice storm. They also assisted Trigg and Lyon Counties, Kentucky, with emergency operations. In Trigg County, firefighters cut seven dump-truck loads of firewood for homes without electricity and constructed four miles of new utility corridor in just two days for emergency placement of a new electrical main line. In Lyon County, a team of firefighters shadowed and instructed the County IMT in the proper application of ICS principles.

<u>KISATCHIE NATIONAL FOREST</u> - The Kisatchie National Forest continued cooperation with Louisiana Office of Forestry (LOF). LOF conducts aerial detection for the KSF and has the primary responsibility for wildfire control on the Caney Ranger District.

Resources representing the Forest Service, U.S. Fish & Wildlife Service, National Park Service and the State of Louisiana were once again dispatched through the Louisiana Interagency Coordination Center.

Cooperation with western forests in Regions 1, 4, and 6 continues to provide numerous personnel to assist with the prescribe burn and wildland fire efforts throughout the fall and winter months. In FY 2009, we were able to accomplish burning on 139,138 acres. The forest would not have accomplished this without the assistance from the western detailers. Between the months of November 2008 and May 2009, there was an estimated total of 30 western detailers that had worked on the Kisatchie NF.

The KIF's Public Information Officer Jim Caldwell and his staff continued to keep the fire prevention program very busy over the year with numerous activities which included the Alexandria Aces' Smokey Day and numerous I&E programs.

<u>NATIONAL FORESTS IN MISSISSIPPI</u> - The National Forests in MS continues to work in cooperation with the Mississippi Forestry Commission to uphold a Cooperative Fire Protection Agreement that allows for initial attack to be made by suppression forces that arrive at the fire first, regardless of agency. The Forest Service continues to assist on many of the occurring fires within cooperative boundaries that the MFC would otherwise normally respond.

Interagency cooperation exists with other Federal agencies such as the National Park Service (Natchez Trace Parkway) and the US Fish and Wildlife Service (Noxubee Wildlife Refuge, MS Sandhill Crane Refuge, St. Catherine's Wildlife Refuge), and the Bureau of Land Management. These agencies interact with the Forest Service in national budget planning activities, sharing fire personnel and resources to accomplish prescribed fire treatments, fuels reduction treatments, and training activities. The Forest has a number of participating agreements with private landowners allowing portions of their land to be included within agency and managed prescribed fire treatments for economic efficiency and benefit. The Forest continues to work with the MS Forestry Commission to schedule fire prevention and educational activities at various state-wide events and functions. Due to dry fuel conditions across the state of Mississippi, wild-fire averages for both the Forest Service and State agency continue to escalate yearly. Through the development of national fuels assessment programs, both the Forest and State work together to determine how to reduce fire risk through fuels reduction analysis.

<u>NATIONAL FORESTS IN NORTH CAROLINA</u> - The NFsNC is a partner in the Southern Appalachian Fire Learning Network group which supports training and meetings to facilitate cooperative and interagency information sharing under the umbrella of natural resource management.

The Forest continues to support our State Cooperators through identifying training, providing mobilization, per diem, transportation and lodging. This has allowed numerous state employees to attend fire training courses at the 300, 400 and 500 level.

The NFsNC has provided representation by participating in cadres, committees and teams. Numerous employees have been involved in the NC Fire Environment Working Group, NC Fire Wise Council, NC Prescribed Fire Council and other interagency working groups established to deal with fire management issues throughout the state.

The Forest Service and the State of North Carolina are in the process of developing an interagency training calendar and proposing a two week training academy to occur annually.

In conclusion, the NFsNC participated in the first ever Strategic Wildfire Planning Meeting. This is also an interagency approach working to develop a long range plan of action for the response and suppression of wildfires in N.C.

<u>THE FRANCIS MARION AND SUMTER NATIONAL FORESTS</u> - Cooperative efforts during 2009 were as follows:

• Provided speakers to participate in a two day National Weather Service workshop for land management agencies in Charleston, SC.

- FMSNF provided representation on the South Carolina Prescribed Fire Council Steering Committee. Assisted the Prescribed Fire Council in planning and coordination of the annual prescribed fire meeting for various private organizations and agencies
- The South Carolina Coordination Center provided dispatch support to the South Carolina Forestry Commission for fire suppression aviation operations on the Highway 31 fire in April.
- Daily cooperation and coordination between federal agencies and the South Carolina Forestry Commission dispatch centers to obtain daily prescribed fire smoke management authorizations.
- Participation in District Fire Prevention programs such as local elementary school programs, holiday parades, and country fairs.
- Provided two training instructors to teach I200 (Basic ICS) to Department of Agriculture, Animal and Plant Health Inspection Service (APHIS) in spring.
- Provided opportunities for National Weather Service forecasters to participate in prescribed fire briefings and observation of prescribed fire operations.
- Cooperated with the National Park Service, Kings Mountain National Battlefield to obtain Park Service Type 6 engine and crew to assist with initial attack operations on the Andrew Pickens Ranger District.
- Provided instructors to assist the National Park Service, Kings Mountain with the instruction of basic fire training. Provided pumps for S211 training and instructors for S260 and S261 training to the SC Forestry Commission.
- In 2009 the Forest entered into three additional Wyden Agreements with the Corps of Engineers and private landowners to reduce needed unit preparation costs on prescribed fire units.

SAVANNAH RIVER. FOREST- Savannah River Site renewed it's Memorandum of Agreement with Wackenhut Security Inc. (WSI) and utilized their helicopter to accomplish 1500 acres of prescribed burning. In addition, the Savannah River Site supported WSIs security mission by suppressing fires caused during weapons training.

<u>THE CHEROKEE NATIONAL FOREST</u> - The Cherokee National Forest continues to work closely with all of the Tennessee State and Federal agencies located within the state of Tennessee. An outstanding example of cooperation is the success of the Tennessee/Kentucky wildfire academy. The first academy was held in CY 2000. The 2009 academy was successful in training 355 students which was the largest to date. This interagency academy provides a unique training opportunity for personnel who may not otherwise have the opportunity to attend quality training sessions. It is predominately attended by Southern Area employees however, there are a considerable number of students from other geographic areas as well.

The Ranger Districts continue working with local universities to offer basic fire classes which not only provide potential fire qualified individuals to state and federal agencies but also provides college credits for the students.

The Cherokee National Forest and the National Wild Turkey Federation continue to work closely together to provide habitat improvement projects in conjunction with our fuel reduction program.

The Forest hosted 2 interagency cooperator meetings this past season. Attendees included the Tennessee Division of Forestry, National Weather Service, Great Smoky Mountains National Park and the Cherokee National Forest

Construction of the Chattanooga Air Tanker Base was completed in late 2008 and has been fully operational during the 2009 season. Overall management of the facility is the responsibility of the US Forest Service. The Tanker Base is staffed with a Tanker Base Manager and an Assistant Manager, both of these individuals are National Park Service Employees. Air Tankers were stationed at the Tanker Base 35 days during the 2009 season and were utilized multiple days. During this time there were two Mix Master training courses conducted of which were attended by multiple individuals throughout region 8. The Tanker Base was also utilized as a staging area for the Regional Helicopter during the fall fire season.

NATIONAL FORESTS AND GRASSLANDS IN TEXAS -The NGFT have always striven to work with cooperating agencies and organizations and this cooperation continued in 2009. One of NFGTs largest cooperator is the Texas Forest Service (TFS). NFGT assisted and at times supported TFS during the 2009 fire season. The NFGT fuels helicopters were often used by the TFS for fire suppression, mapping and fire reconnaissance missions. The NFGT helped to support and provide instructors for two fire academy's hosted by TFS, one in Lufkin, TX and one in Bastrop TX. The Texas Multi-Agency Coordination Group reconvened in 2009. This MAC group made up of NFGT, TFS, USFWS, NPS, TNC, and the Texas Parks and Wildlife came together and have re-energized its efforts to coordinate efforts and resources. Through this process NFGT has developed interagency participating agreements with these partners. NFGT also has a participating agreement with Stephen F Austin University to provide fire training and on-the-job opportunities.

NFGT is partnered in 4 community wildfire protection plans (CWPP) working with 4 different counties and participating in a multitude of ongoing projects.

The Davy Crocket National Forest was a selected sponsor of Forest Awareness, a week long program designed to introduce 4th graders to the outdoors. Co-sponsors include TFS, local businesses, timber consultants, school districts and interested citizens.

As with every year the NFGT also participated in fire prevention programs at local schools, churches and community events.

<u>GEORGE WASHINGTON AND JEFFERSON NATIONAL FORESTS</u> - The GWJNF continues to have a good working relationship with its partners. The Virginia Multi-Agency Coordinating Group has been in existence for 15 years now, and the member agencies continue to work with each other in suppression and prescribed fire operations, training, and maintaining a Type 3 IMT.

The GWJNF continue to be an active participant in the Appalachian Fire Learning Network (FLN). An example of the cooperation facilitated by the FLN was seen on the 2200-acre Jackson River burn, where GWJNF personnel were assisted by personnel from The Nature Conservancy, Shenandoah NP, USFWS, VA Dept. of Conservation and Natural Resources, and VA DOF. Planning continued for implementation of burns in the Allegheny Highland Landscape in 2010. In addition, work began on establishing the Border project, which involves lands under multiple jurisdictions along 70 miles along the VA-WV border, which is also the boundary between the GWJNF and the Monongahela NF. In addition to the agencies listed above, partners include Virginia Department of Game and Inland Fish, West Virginia Department of Natural Resources, West Virginia Division of Forestry, and the Fernow Experimental Forest, Northern Research Station.

Table 4 — Personnel Employed on Wildlife Presuppression and Suppression Activities

	Personnel Employed on Wildfire Presuppression And Suppression Activities- CY 2009 Southern Area											
No.	Item	Val	ues									
INO.	l	Sub-Total	Total									
1. Re	I. Regular Appointed Personnel											
а	Full-time fire management (20 pay periods or more)	356										
b	Part-time fire management	132										
с	Others used on pre-suppression	347										
d	Others used on suppression (exclude those reported under a, b, or c)	396										
е	Total regular appointed personnel (a+b+c+d)		1231									
2. Se	easonal or Short-term Personnel											
а	Regular fire control (Crew, Firefighters, Patrol, Lookouts)	84										
b	Others who spent time on fire control work (BD, KV, BR, R&T, etc.)	124										
с	Emergency firefighters	1282										
d	Total emergency firefighters (a+b+c)		1490									
3. To	tal number of casuals employed on fire suppression		1944									
4. Nu	4. Number of casuals, included in Item 3, employed for first time 353											
5. Re	emarks											
То	otal		4665									

									National
			Inside	e Forest Serv	vice Prote	ction Boundar	ies		Forest
ate								S&P Land	Land
St								Prot'd by	Protected
þ			Pro	tected by For	1			State and	by Others
rea					Other	National		Forest	
Southern Area by State		State	& Private		Federal	Forest Land		Service	
the			Re im-						
out			burse	Without	Land				
U U			Supp	Reim-					
	Fee	Offset		burse			Total		
AL						657,463	657,463		11,252
AR-OK				1,092,928	4,773	2,948,358	2,953,131	1,306,096	132,816
FL		37,758				1,185,163	1,222,921	520,610	
GA						865,670	865,670		
KY DBF						707,763	707,763		
KY LBL						N/A	N/A		
LA				393,221		571,924	965,145		32,354
MS						1,183,486	1,183,486		
NC					41,350	1,375,021	1,416,371	1,504,000	327
PR						28,000	28,000		
SCFM						630,929	630,929		
SCSR									
TN						650,000	650,000		
тх						637,621	637,621		
VA						1,788,664	1,788,664	1,681,526	
VA*						1,664,074	1,664,074	1,359,097	
WV*						123,629	123,629	303,273	
KY*						961	961	19,156	
Total									

Table 5—Land Protection Report for Calendar Year 2009

*Breakdown of report by VAF

Table 6 — Fires and Acres by Cause

		F	ires and	d Acres	by Caus	se • Sou	thern R	egion •	CY200	9			
Page 1 of 2		Lightning	Equip- ment	Smoking	Campfire	Debris	Railroad	Arson	Children	Misc.	Fires	Acres	Acres Per Fire
	Fires	2	2	0	3	1	0	14	0	5	27		31
Alabama	%	7.4%	7.4%		11.1%	3.7%		51.9%		18.5%			
National Forests in Alabama	Acres	416	2	0	330	8.1	0	66.1	0	25.6		847.8	
	%	49.0%	.20%	0.0%	39%	1.0%	0.0%	7.8%		3.0%			
	Fires	4	3	0	2	10	2	51	0	16	88		39
Arkansas Ouachita, Ozark- St. Francis National Forests	%	4.55%	3.41%	0.0%	2.27%	11.36%	2.27%	57.95%	0.0%	18.18%			
	Acres	26.4	15.7	0	10.2	104.5	279.2	2,817.4	0	144.6		3,398	
	%	0.78%	0.46%	0.0%	0.30%	3.08%	8.22%	82.91%	0.0%	4.26%			
	Fires	26	3	1	11	10	0	17	1	49	118		115
Florida National Forests in Florida	%	22.03%	2.54%	0.85%	9.32%	8.47%	0.0%	14.41%	0.85%	41.53%			
	Acres	623	2.2	.1	10,095	424	0	779	1.9	1667		13,592.2	
	%	4.58%	0.02%	0.02%	74.26%	3.12%	0.0%	5.73%	0.01%	12.26%			
Georgia	Fires	3	2	0	2	7	0	14	0	8	36		5
Chattahoochee-	%	8.33%	5.56%	0.0%	5.56%	19.44%	0.0%	38.89%	0.0%	22.22%			
Oconee National Forest	Acres	15.65	1.25	0	0.2	36.9	0	108.6	0	4.27		166.9	
	%	9.17%	0.73%	0.0%	0.12%	21.63%	0.0%	65.0%	0.0%	2.50%			
	Fires	0	1	0	5	8	1	25	0	13	53		37
Kentucky Daniel Boone	%	0.0%	1.89%	0.00%	9.43%	15.09%	1.89%	47.17%	0.00%	24.53%			
National Forest	Acres	0	0.1	0	132.4	536.75	48	965.1	0	303.75		1,986.1	
	%	0.0%	0.01%	0.00%	6.67%	27.03%	2.42%	48.59%	0.00%	15.29%			
	Fires	0	0	0	0	0	0	1	0	0	1		250
Kentucky Land Between	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%	0.0%	0.0%			
the Lakes NRA	Acres	0	0	0	0	0	0	250	0	0		250	
	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%	0.0%	0.0%			
	Fires	2	1	0	2	3	0	30	0	5	43		48
Louisiana Kiaatabia National	%	4.65%	2.33%	0.0%	4.65%	6.98%	0.00%	69.77%	0.00%	11.63%			
Kisatchie National Forest	Acres	42	1	0	7	390	0	1,387	0	250		2,077	
	%	2.02%	0.05%	0.0%	0.34%	18.78%	0.00%	66.78%	0.00%	12.04%			
	Fires	2	1	1	1	19	0	36	0	29	89		26
Mississippi	%	2.3%	1.1%	1.1%	1.1%	21.4%	0	40.4%	0	32.6%			
National Forests in Mississippi	Acres	.2	7.7	3	9.2	427	0	1,067	0	1,148		2,661.42	
	%	.008%	.3%	.1%	.3%	16.0%	0	40.0%	0	43.1%			

Table 6 — Fires and Acres by Cause (continued)

		Fi	res and	Acres b	oy Caus	e • Sou	thern R	egion «	• CY200	9			
Page 2 of 2		Lightning	Equip- ment	Smoking	Campfire	Debris	Railroad	Arson	Children	Misc.	Fires	Acres	Acres Per Fire
	Fires	6	1	3	2	33	4	23	1	18	91		47
North Carolina	%	6.6%	1.1%	3.3%	2.2%	36.3%	4.4%	25.3%	1.1%	19.8%			
National Forests in North Carolina	Acres	2,682.8	0.5	277	41	421.6	262	317.45	1	308.65		4,312	
	%	62.2%	0.0%	6.4%	1.0%	9.8%	6.1%	7.4%	0.0%	7.2%			
	Fires	0	0	0	0	0	0	0	0	0	0		0
Puerto Rico	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
El Yunque National Forest	Acres	0	0	0	0	0	0	0	0	0		0	
	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
	Fires	0	1	1	1	2	0	15	0	6	26		40
South Carolina Francis Marion & Fort Sumter National Forests	%	0.0%	3.8%	3.8%	3.8%	7.7%	0.0%	57.7%	0.0%	23.1%			
	Acres	0.0%	0.1	0.2	239.2	8	0	778	0	2		1,027.5	
	%	0.0%	0.0%	0.0%	23.3%	0.8%	0.0%	75.7%	0.0%	0.2%			
South Carolina	Fires	0	1	1	0	0	0	1	0	9	12		9
	%	0.0%	8.3%	8.3%	0.0%	0.0%	0.0%	8.3%	0.0%	75.0%			
Savannah River Site	Acres	0	.3	.1	0	0	0	79	0	33.2		112.6	
	%	0.0%	0.3%	0.08%	0.0%	0.0%	0.0%	70.2%	0.0%	29.5%			
	Fires	0	0	0	0	15	0	17	0	9	41		22
Tennessee	%	0.0%	0.0%	0.0%	0.0%	36.6%	0.0%	41.5%	0.0%	22%			
Cherokee National Forest	Acres	0	0	0	0	313.95	0	400.5	0	179.45		893.45	
	%	0.0%	0.0%	0.0%	0.0%	35.1%	0.0%	44.8%	0.0%	20.1%			
_	Fires	10	3	1	4	12	0	17	0	21	68		13
Texas National Forests	%	14.7%	4.4%	1.5%	5.9%	17.6%	0.0%	25.0%	0.0%	30.9%			
& Grasslands In Texas	Acres	48.1	156.7	0.1	133.6	213.6	0	214.4	0	137		903.5	
in rexue	%	5.3%	17.3%	0.0%	14.8%	23.6%	0.0%	23.7%	0.0%	15.2%			
	Fires	4	1	1	3	3	1	6	1	8	28		21
Virginia George Washing-	%	14.3%	3.6%	3.6%	10.7%	10.7%	3.6%	21.4%	3.6%	28.6%			
ton & Jefferson National Forests	Acres	9	1	0	2	313	22	131	1	115		594	
	%	1.5%	0.2%	0.0%	0.3%	52.7%	3.7%	22.1%	0.2%	19.4%			
Total Wildfires	Fires	59	20	9	36	128	8	267	3	196	721		
Total Acres Burned	Acres	3,863	189	281	11,000	3,197	611	9,364	4	4,318		32,827	

Table 7 — Fires and Acres by Size Class

		Fires an	d Acres b	y Size Cla	ass • Sou	thern Reg	ion • CY2	2009		
Page 1 of 2		А	В	С	D	E	F	G	Total Fires	Total Acres
	Fires	5	13	7	1	1	0	0	27	
Alabama	%	18.5%	48.1%	25.9%	3.7%	3.7%	0.0%	0.0%		
National Forests in Alabama	Acres	.60	41.60	158.60	237	410	0	0		847.8
	%	0.07%	4.9%	18.7%	27.9%	48.4%	0.0%	0.0%		
	Fires	7	38	23	7	3	0	0	88	
Arkansas Ouachita, Ozark-	%	8.0%	43.2%	26.1%	8.0%	3.4%	0.0%	0.0%		
St. Francis National Forests	Acres	0.6	167	739.4	1,134	1,357	0	0		3,398
	%	0.02%	4.91%	21.76%	33.37%	39.94%	0.0%	0.0%		
	Fires	46	46	19	2	3	1	1	118	
Florida National	%	39.0%	39.0%	16.1%	1.7%	2.5%	0.8%	0.8%		
Forests in Florida	Acres	6	151.5	548	395.5	1,130	1,339	10,022		13,592
	%	0.04%	1.1%	4.0%	2.9%	8.3%	9.3%	73.7%		
	Fires	10	20	5	1	0	0	0	36	
Georgia Chattahoochee-	%	27.8%	55.6%	13.9%	2.8%	0.0%	0.0%	0.0%		
Oconee National Forest	Acres	1.06	54	57	58	0	0	0		170.06
	%	0.62%	32.0%	33.6%	34.5%	0.00%	0.00%	0.00%		
	Fires	8	17	21	6	1	0	0	53	
Kentucky Daniel Boone	%	15.1%	32.1%	39.6%	11.3%	1.9%	0.0%	0.0%		
National Forest	Acres	1.1	58	670.5	856.5	400	0	0		1,986.1
	%	0.06%	2.92%	33.76%	43.12%	20.14%	0.0%	0.0%		
	Fires	0	0	0	1	0	0	0	1	
Kentucky Land Between	%	0.0%	0.0%	0.0%	100%	0.0%	0.0%	0.0%		
the Lakes NRA	Acres	0	0	0	250	0	0	0		250
	%	0.0%	0.0%	0.0%	100%	0.00%	0.00%	0.00%		
	Fires	0	27	12	1	3	0	0	43	
Louisiana Kisatchie National	%	0.0%	62.8%	27.9%	2.3%	7.0%	0.0%	0.0%		
Forest	Acres	0	73	454	164	1,386	0	0		2,077
	%	0.0%	3.51%	21.86%	7.90%	66.73%	0.0%	0.0%		
	Fires	19	42	16	12	0	0	0	89	
Mississippi National Forests	%	21.3%	47.1%	17.9%	13.4%	0.0%	0.0%	0.0%		
in Mississippi	Acres	25.3	825.6	1560.5	250	0	0	0		2,661.42
	%	1.0%	31.0%	58.6&	9.4%	0.0%	0.0%	0.0%		

Table 5 — Fires and Acres by Size Class (continued)

		Fires an	d Acres b	y Size Cla	ass • Sou	thern Reg	ion • CY2	2009		
Page 2 of 2		А	В	С	D	E	F	G	Total Fires	Total Acres
	Fires	5	67	12	6	0	1	0	91	
North Carolina	%	5.5%	73.6%	13.2%	6.6%	0.0%	1.1%	0.0%		
National Forests in North Carolina	Acres	1	73	390	1,188	0	2,660	0		4,312
	%	0.02%	1.69%	9.04%	27.55%	0.00%	61.69%	0.0%		
	Fires	0	0	0	0	0	0	0	0	
Puerto Rico	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
El Yunque National Forest	Acres	0	0	0	0	0	0	0		0
	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
	Fires	8	12	2	4	0	0	0	26	
South Carolina Francis Marion &	%	30.8%	46.2%	7.7%	15.4%	0.0%	0.0%	0.0%		
Fort Sumter National Forests	Acres	0.8	34.1	118.4	874.2	0	0	0		1,027.5
	%	0.08%	3.32%	11.52%	85.08%	0.0%	0.0%	0.0%		
	Fires	4	6	2	0	0	0	0	12	
South Carolina Savannah River Site	%	33.3%	50.0%	16.7%	0.0%	0.0%	0.0%	0.0%		
	Acres	1.6	2	109	0	0	0	0		112.6
	%	1.4%	1.8%	96.8%	0.0%	0.0%	0.0%	0.0%		
	Fires	11	21	6	3	0	0	0	41	
Tennessee Cherokee	%	26.8%	51.2%	14.6%	7.3%	0.0%	0.0%	0.0%		
National Forest	Acres	2.05	67.5	154.4	669.5	0	0	0		893.45
	%	0.23%	7.55%	17.28%	78.80%	0.0%	0.0%	0.0%		
-	Fires	19	30	17	2	0	0	0	68	
Texas National Forests	%	27.9%	44.1%	25.0%	2.9%	0.0%	0.0%	0.0%		
& Grasslands In Texas	Acres	2.3	77.9	545.3	278	0	0	0		903.5
	%	0.25%	8.62%	60.35%	30.77%	0.0%	0.0%	0.0%		
	Fires	7	14	4	3	0	0	0	28	
Virginia George Washing-	%	25.0%	50.0%	14.3%	10.7%	0.0%	0.0%	0.0%		
ton & Jefferson National Forests	Acres	1	33	164	396	0	0	0		594
	%	0.17%	5.56%	27.61%	66.67%	0.0%	0.0%	0.0%		
Total Wildfires	Fires	149	353	146	59	11	2	1	721	
Total Acres Burned	Acres	43.5	1,658.5	5,670.3	6,746.2	4,683	3,999	10,022		32,827

Table 7 - Ten Year Fire Average			
Year	Fires	Acres	Ac/Fire
2000	1,783	75,771	42
2001	1,317	54,243	41
2002	985	29,083	30
2003	580	13,024	22
2004	774	77,599	100
2005	983	39,264	40
2006	1,381	78,412	57
2007	1,340	189,415	141
2008	898	48,935	63
2009	721	32,827	46
10 Year Average	1,076	63,857	—