

Daniel Boone National Forest/Kentucky Interagency Coordination Center

Annual Fire Report

Calendar Year 2003

During CY 2003 the level of fire activity on the Daniel Boone National Forest was well below the 10-year average of 118 fires and 5,500 acres burned. Between January 1 and December 31, 2003, only 30 wildland fires involving 233 acres were suppressed. Five of the Forest's six ranger districts reported fire activity, with the largest number of responses having been made on the London Ranger District. This district took action on 10 fires (33% of total fires).

During 2003 100% of all fires were human caused. Arson remained the primary cause, accounting for 27 fires (90% of all fires) and for 204 burned acres (88% of all burned acres).

Fires occurred according to the following seasonal breakdown:

Spring Fire Season	03/01 – 05/15	14 Fires	47 %	69 Acres	30 %
Fall Fire Season	10/15 – 12/15	16 Fires	33 %	164 Acres	70 %
Off-Season	Jan – Feb	0 Fires			
Off-Season	Aug – Sept	0 Fires			

During the calendar year there were 23 days when fires occurred. Of these, 4 were multiple fire days (more than one suppression action taken). Fire activity on these days accounted for 11 fires (37% of total) and 94 burned acres (40% of total).

Weather

Kentucky's spring fire season, February through May, was characterized by above normal precipitation. A slow moving weather system brought flooding rains to some and an ice storm to others between Valentine's Day and President's Day. An Arctic frontal boundary remained over the Ohio Valley during this time with the cold air reaching down as far as the Interstate 64 Corridor. Areas near the I-64 Corridor had as much as two inches of ice accumulation. Another storm system brought another inch or more of rain and even some snow on the 22nd of February. A total of between 7 and 8 inches of rain was common for February across the region. After this time a relatively warm and dry period lingered through March. Above normal precipitation returned for both April and May.

For the four months ending in May 2003, Jackson, Kentucky recorded 20.50 inches of rain (3.49 inches above normal) and temperatures averaged around 1 degree above normal. During the same period Lexington recorded 19.74 inches of rain (3.61 inches above normal). London also had temperatures that were about 1 degree above normal with precipitation of 22.2 inches of rain (5.17 inches above normal).

Several weather systems moved into the Ohio Valley during the typically active period of May through July. Afternoon and evening thunderstorms continued to bring rather frequent rainfall into August. For the four months ending in August, Jackson's precipitation was 4.06 inches above normal, Lexington was 6.45 inches above normal, and London was about 11.73 inches above normal. Frequent precipitation helped keep temperatures a couple of degrees below normal across eastern Kentucky during the summer months. In fact, London never reached 90 degrees or higher throughout the entire year (the first time this has happened since 1967) and Jackson recorded only one 90 degree day on August 27th.

At the beginning of the fall fire season, eastern Kentucky had a rainfall surplus for the year. At the end of September, Jackson was at 5.8 inches above normal, Lexington was 6.06 inches above normal, while London was at 15.44 inches above normal. Consistent rain helped keep things wet into the fall fire season with near normal October and November rainfall observed. Jackson recorded 13.48 inches of rain (2.33 inches above normal), while Lexington received 16.95 inches of rain (7.7 inches above normal), and London received 7.28 inches of rain for these two months (0.58 inches above normal). Temperatures during the fall fire season averaged above normal with October near normal, but November was around 4 degrees above normal.

Overall, the eastern Kentucky ended the year with rainfall totals averaging between 54 and 67 inches, which are about 5 to 15 inches above normal. The average temperature for the year was slightly cooler than average.

One Red Flag Event was recorded during the spring season on March 8th. All of eastern Kentucky except the Tennessee border counties met warning criteria for between 2 and 4 hours during the afternoon hours.

The following precipitation table of readings from the thirteen weather stations in the KICC network displays the trend of above normal rainfall. It should be noted that not all data sets are complete because of periodic sensor failure through the year.

Station	Station Number	Hours of Precipitation	Annual Precipitation Totals
Alpine	159501	483	37.49
Big Sandy	154801	793	67.01
Big South Fork	400902	814	59.16
Cherry Tree	157201	387	30.74
Crittenden	150703	726	48.91
Greenville	151191	694	64.69
Jackson	156001	791	50.29
Koomer	154401	898	54.62
Land Between the Lakes	159901	617	46.77
Mammoth Cave	156502	762	52.19
Somerset	157002	701	54.05
Triangle Mountain	152001	552	45.15
Yellow Creek	159801	802	58.22

Forest Highlights

Prevention

The Daniel Boone NF's Robert E. Browning, Jr. award for CY 2002 (presented in 2003) for excellence in wildland fire prevention activities was given to Krstofer Evans and Patricia Evans.

Krstofer Evans, a former member of the Plumas Interagency Hotshot Crew, was severely injured while assigned to suppression work on an arson caused fire on the Redbird Ranger District during the fall of 2001. Since that time, Krs and his mother, Patricia, have raised strong voices against arsonists and the toll that arson fires exact from individuals and families. The Evans family continues to work with federal and state officials along with members of the news media to develop and deliver strong anti-arson messages.

The award honors the memory of Robert E. Browning, Jr. of South Carolina who died on Storm King Mountain on July 6, 1994. Candidates for the 2003 award are currently being solicited.

As a follow-up to the 2002 Governor's Summit on Arson and Wildland Fire a series of Firewise Community Workshops have been held in key locations. DBNF employees assisted the Kentucky Division of Forestry to facilitate five of these workshops.

Work by the McCreary County Firewise Council continued through 2003 with notable accomplishments of fuels reduction work having been completed under an initial \$54,000 grant and the initiation of a second \$115,000 fuels reduction grant. Community education efforts, including three Community Workshops, and radio, newspaper, and television public service announcements continue to increase citizen awareness of wildland fire risk and help teach ways to protect homes and property from wildland fires. The downward trend of fire occurrence in McCreary County that began when the Council was formed continued again this year. The Council was honored by the Kentucky Division of Forestry with the presentation of their Robert E. Browning, Jr. award.

Training

Interagency training sessions and seminars offered by the Daniel Boone NF during 2003 included:

S-130 Firefighter Training

S-190 Introduction to Fire Behavior

S-211 Pumps and Water Use

S-212 Wildland Fire Power Saws

S-231 Engine Boss

S-201 Supervisory Concepts and Techniques

Driving Skills for Safe Operations of Wildland Fire Engines

Resource Order and Statusing System

Prescribed Fire Monitoring Seminar

Forest Service employees also assisted the Kentucky Division of Forestry with instruction of:

I-200 Basic Incident Command System

S-205 Wildland Fire Management in the Urban Interface

S-290 Intermediate Fire Behavior

Forest personnel assisted other units hosting wildland fire courses including:

S-130 Firefighter Training, Blue Grass Army Depot

S-190 Introduction to Wildland Fire Behavior, Blue Grass Army Depot

I-200 Basic Incident Command System

RX-300 Prescribed Fire Burn Boss, Blue Grass Army Depot

D-311 Initial Attack Dispatcher (National Beta Test)

S-420 Command and General Staff, Withlacochee, Florida and Bastrop, Texas

S-520 Advanced Incident Management, NARTC

S-620 Area Command, NARTC

Local Fire Management Leadership, Roanoke, Virginia and Hot Springs Arkansas

The Daniel Boone National Forest, Cherokee National Forest, Kentucky Division of Forestry, Tennessee Department of Forestry and the Great Smoky Mountains National Park combined efforts and hosted a Wildland Fire Training Academy held at the Tennessee Fire Service and Codes Enforcement Academy in Bell Buckle Tennessee. The one-week Academy offered six training courses in Operations and Finance/Administration. The curriculum advanced the skills of over 130 students.

Kentucky Interagency Coordination Center

During 2003 the Kentucky Interagency Coordination Center continued to update and improve its web site located at: <http://www.southernregion.fs.fed.us/boonefire>. Fire weather information including Fire Weather Watches and Red Flag Warnings are posted on the web site on a daily basis during spring and fall fire seasons and on an as-needed basis outside of the historic fire hazard seasons. This technology enables Cooperators to easily access critical daily weather and other pertinent fire information. The site also provides numerous links to information on fire activity, fire danger, training opportunities, and employment information.

The Kentucky Interagency Coordination Center held its 11th annual cooperators' meeting May 28 and 29 at the Big South Fork National River and Recreation Area, Oneida, Tennessee.

The primary business activities of the Kentucky Interagency Coordination Center were in response to the following events:

Space Shuttle Columbia Disaster

Suppression Mobilization to Western Geographic Areas

Hurricane Isabel Support

From February through May KICC resources were assigned to the Columbia Space Shuttle Recovery missions in Texas. A summary of those resources mobilized follows:

Crews

Agency	Search Crews	Personnel	Camp Crews	Personnel	Total Crew Personnel
Interagency	1	19			19
Job Corps	2	40	19	190	230
Total					249

Overhead Resources

Agency	Number
National Park Service	3
National Weather Service	1
U.S. Forest Service	33
Total	37

The following table reflects a total of all resource dispatches from June to September of overhead personnel outside the state of Kentucky in support of wildland fire incidents within the Southern Area and to other Geographic Areas throughout the United States.

Agency	Number of Personnel	Total Worker Days
National Park Service	33	704
State	25	488
Forest Service	76	1435
Department of Defense	1	16
National Weather Service	3	47
US Fish and Wildlife Service	-	-
Totals	138	2690

It is important to note that because of the length of the summer fire season some individuals were assigned multiple times.

Agencies included in the above totals are as follows:

Agency	Unit
National Park Service	Big South Fork NRRRA
	Cumberland Gap NHP
	Mammoth Cave NP
	Abraham Lincoln Birthplace NHS
	Obed Wild and Scenic River
U.S. Fish and Wildlife Service	Clarks River NWR
State	Kentucky Division of Forestry
Forest Service	Daniel Boone National Forest
	Pine Knot Job Corps Center
	Frenchburg Job Corps Center
	Southern Interagency Fire Cache
	Land Between the Lakes NRA
Department of Defense	Blue Grass Army Depot
National Weather Service	Louisville NWS Office
	Jackson NWS Office
	Paducah NWS Office

Crew dispatches for fire suppression from member agencies within the Kentucky Interagency Coordination Center were:

Agency	Number of Crews
Job Corps	3
State	1
Interagency	4
National Forest	0

During September and October resources were mobilized to Georgia, North Carolina, and Virginia to assist with recovery efforts following Hurricane Isabel. A summary of resources assigned to these efforts follows:

Agency	Resource	Personnel
Forest Service	Camp Crew	10
National Park Service	Overhead	8
Forest Service	Overhead	14
Total		32

During 2003 the Resource Ordering and Status System (ROSS) became the mechanism by which resources were mobilized and tracked. The adoption of ROSS marked a major milestone in coordination services with its conversion to a nationwide interagency automated system linking two tiers of the dispatching system.

Of special note this year was the selection of Jeffery Smith to serve as the representative of the Kentucky Division of Forestry to the Kentucky Interagency Coordination Center. Mr. Smith began work during the fall of 2003.

Notable Events, Cooperators

Daniel Boone NF

The Daniel Boone National Forest experienced one of its lowest fire occurrence years on record. All fires were contained during through initial attack efforts and no off-unit resources were mobilized.

Minor support from the Forest was provided to Big South Fork NRRRA and to Obed Wild and Scenic River for suppression assistance through mobilization of Pine Knot Job Corps fire crews.

Assistance to Mammoth Cave National Park prescribed fire efforts was also provided.

Two DBNF ranger districts accomplished mechanical fuels treatment during 2003. The Somerset District treated approximately 75 acres through drum chopping and awarded a second contract for an additional 100 acres. Treatment of these acres is projected to be completed by April 2004.

The Stearns District awarded a contract in 2003 for approximately 200 acres of drum chopping, which will be completed by February 15, weather permitting.

All of the drum chop treatment areas are located in old pine plantations killed by the Southern Pine Beetle epidemic of 1999-2001 in urban interface areas.

Following mechanical treatment all of the areas will be burned and planted to shortleaf pine.

Interagency mobilization efforts began in earnest with assistance to recovery efforts of the space shuttle Columbia. From February through April numerous Forest crews and miscellaneous overhead personnel were sent to the various mission sites in Texas. The contribution of the Pine Knot Jobs Corps Center and the Frenchburg Job Corps Center to both search and camp crews was especially notable.

During the months of June, July, August and September mobilization of resources to western geographic areas for wildland fire responses defined the business of the Interagency Center. The Daniel Boone National Forest contributed significant numbers of resources.

In June, Angie Taulbee Graham, Logistics Coordinator, moved to her new duty location at the London Interagency Fire Cache where she will continue to provide the highest level of service to both the Cache and Interagency communities.

In December, Robin Acciaro was selected to fill the Forest Dispatcher position for the Daniel Boone National Forest.

Daniel Boone NF Law Enforcement

The 2003 arson related fire occurrences on the Daniel Boone were down significantly. Several factors are believed to be responsible for this downward trend. Significant amounts of rainfall occurred frequently throughout the fall fire season, which aided in slowing the rate and occurrence. Intensive Law Enforcement efforts from the previous fall also contributed to the reduction of arson fires in 2003.

Law Enforcement personnel investigated several arson fires that occurred on the Redbird, Somerset, London, Stanton, Stearns and Morehead Ranger Districts during 2003. Law Enforcement Officers and Special Agents developed leads associated with the deliberate burning of a Forest Service vehicle parked at the Redbird District compound. The case was brought to trial in the fall of 2003. A jury made up of six men and six women found the defendant not guilty, even though the defendant had admitted on two separate occasions, too burning the Government vehicle.

In conclusion, the potential for fire activity was greatly reduced due to wet weather conditions through the spring and fall fire seasons. The efforts of fire prevention teams, public involvement and an aggressive law enforcement presence further reduced the threat of arson fires across the Daniel Boone National Forest.

Southern Interagency Fire Cache

The Southern Area Incident Support Cache (SAK) processed 506 issues during calendar year 2003. This represents 3,556 line items with an inventory value of 3.5 million dollars. Returns totaled 2,899 line items with a value of 2.1 million.

Six of the eight 250 person mobile cache vans, prepositioned throughout the Southern Area were deployed and returned to SAK for refurbishment.

On February 11, 2003 the first shipment from SAK was shipped to Texas in support of the Shuttle Disaster. The cache continued to support the Shuttle Disaster through June 4. During this time, the cache was staffed seven days per week in support of this incident along with other various incidents.

During the summer of 2003, SAK supported Western Mobilization with numerous shipments of supplies and equipment to some of the Western Caches. Cache employees also supported the other geographic areas by accepting assignments to the Rocky Mountain Incident Support Cache.

Big South Fork National River and Recreation Area Obed Wild and Scenic River

The fire activity for 2003 was very sporadic as there were few days without precipitation. After a year of recording almost 60 inches of rainfall, there was little to burn. However, in between showers, the Obed Wild and Scenic River had a medium size fire (98 acres) and Big South Fork NRRRA suppressed a small fire (2 acres) in the Rugby area. Both of these fires were in April during the spring fire season. The rest of the season was pretty much washed away.

The fall season started much like the spring with rainfall on regular intervals. However, as another front moved into the area we had a significant wind event that caused a tree to fall on a power line and resulting in the start of the Power Line fire. This fire was wind driven and could not be caught at a small size. After jumping several lines, the decision was made to fall back to naturally occurring firebreaks as well as existing trails and roads. This gave a fire size of approximately 1000 acres. The trailing precipitation to the front did arrive and the fire was rained out before consuming all of the fuels inside the perimeter. Subsequent remapping by GPS still showed a fire that burned 450 acres. No resource damage was done and there was little mop-up with the rainfall received.

The ongoing Wildland/Urban Interface (WUI) project continued throughout the year until mid September. With the completion of the mechanical fuel reduction project along two boundaries in Fentress County, Tennessee and the western boundary in McCreary County, Kentucky, Big South Fork NRRRA had almost six (6) miles of boundary cleared of underbrush and dead pine trees. This provided a significant firebreak for the Park's neighbors and particularly in the Bald Knob community of western McCreary County where two major (1500+acres) fires have approached the community in years past.

In the world of fire planning the Big South Fork finally completed the Fire Management Plan and associated Environmental Assessment. This document has been through years of review and re-writing until its final phase was completed in December. The document went to the public and our fellow agencies for review and should be completed by February 2004. With this document completed, the Big South Fork NRRRA will begin a prescribed fire program through which we intend to complete significant fuel reduction, cultural site management and burns for resource benefit.

Last, but certainly not least, the Big South Fork NRRRA started the contract for the new fire cache to be built in the headquarters area of the Park. The contract was awarded late in fiscal year 2002 and work started in mid-November. The Park looks forward to the completion of this 4200 square foot facility.

Mammoth Cave National Park

Mammoth Cave National Park had a total of two wildland fires during 2004 for a total of two acres. The park conducted a 408-acre prescribed fire in April. The project was completed under the direction of the Cumberland Gap Fire Use Module and the cooperation of the Great Smoky Mountain Fire Use Module, Big South Fork NRRRA, and the Pine Knot Job Corps. A five-acre mechanical reduction project was completed at the Crystal Cave Historic district.

CY 2003 Statistics, Daniel Boone National Forest

Summary	
Total # of Fires	30
Total Acres	233
Forest Service Acres	185
Non-Forest Service Acres Protected by FS	48
Acres Outside FS Protection	0

Fires By District

District	# Fires	%	Acres	%
Morehead	0		0	
Stanton	2	7	25	11
London	10	33	68	29
Somerset	3	10	12	5
Stearns	7	23	52	22
Redbird	8	27	76	33
Totals	30	100	233	100

District Fires/Acres by Size Class

	Class A		Class B		Class C		Class D		Class E		Class F	
	Fires	Acres										
MOR												
STA					2	25						
LON	2	0.3	5	21.5	3	46						
SOM	1	0.1	2	12								
STE	1	0.2	4	20	2	32						
RED	1	0.1	4	15	3	61						
Totals	5	<1	15	69	10	164						
% Fires	17		50		33							
% Acres		<1		30		70						

Class A	Class B	Class C	Class D	Class E	Class F
≤ .25 Acres	>.25 – 9.9 Acres	10 – 99.9 Acres	100 – 299.9 Acres	300 – 999.9 Acres	1000 – 4,999.9 Acres

Fires by Cause

	Cause 1		Cause 2		Cause 3		Cause 4		Cause 5		Cause 6		Cause 7		Cause 8		Cause 9	
	#	Ac	#	Ac	#	Ac												
Mor																		
Sta							1	13	1	12								
Lon													10	68				
Som													3	12				
Ste													7	52				
Red													7	72			1	4
Totals							1	13	1	12			27	204			1	4

By Cause – Forest Totals

	Cause	#	%	Acres	%
1	Lightning				
2	Equipment Use				
3	Smoking				
4	Campfires	1	3.3	13	5
5	Debris Burning	1	3.3	12	5
6	Railroad				
7	Arson	27	90	204	88
8	Children				
9	Misc.	1	3.3	4	2

Detection Methods

Method	#	%
FS Lookout	1	3.3
Other Lookout		
FS Patrol	4	13.3
Other FS Employee	1	3.3
Planned Cooperator	6	20
FS Permittee		
FS Aircraft Observer		
Other A/C Observer		
Others	18	60
Totals	30	100

Land Ownership Protection Report

State	S&P Offset	NF Land	Total	NF Land Protected by Others
Kentucky	1,090	702,030	703,120	882

Prescribed Burning Accomplishments

District	Objectives				
	Timber Stand Improvement	Wildlife	Fuels-Mechanical	Fuels	Totals
Morehead		13		1260	1273
Stanton					
London		25			25
Somerset		73	114	1860	2047
Stearns				1826	1826
Redbird					
Totals		111	114	4946	5171