

KEVIN HULL OFFICE
BLM STATE

Western Great Basin Coordination Center



Western Great Basin Area 1997 Fire Season Summary



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Statistical Fire Summary for Nevada

This is the Western Great Basin Area's Wildfire Summary. The book is divided into the following sections:

Nevada Statewide Fire Totals

Incident Support Summary

BLM Boise Smokejumper Summary

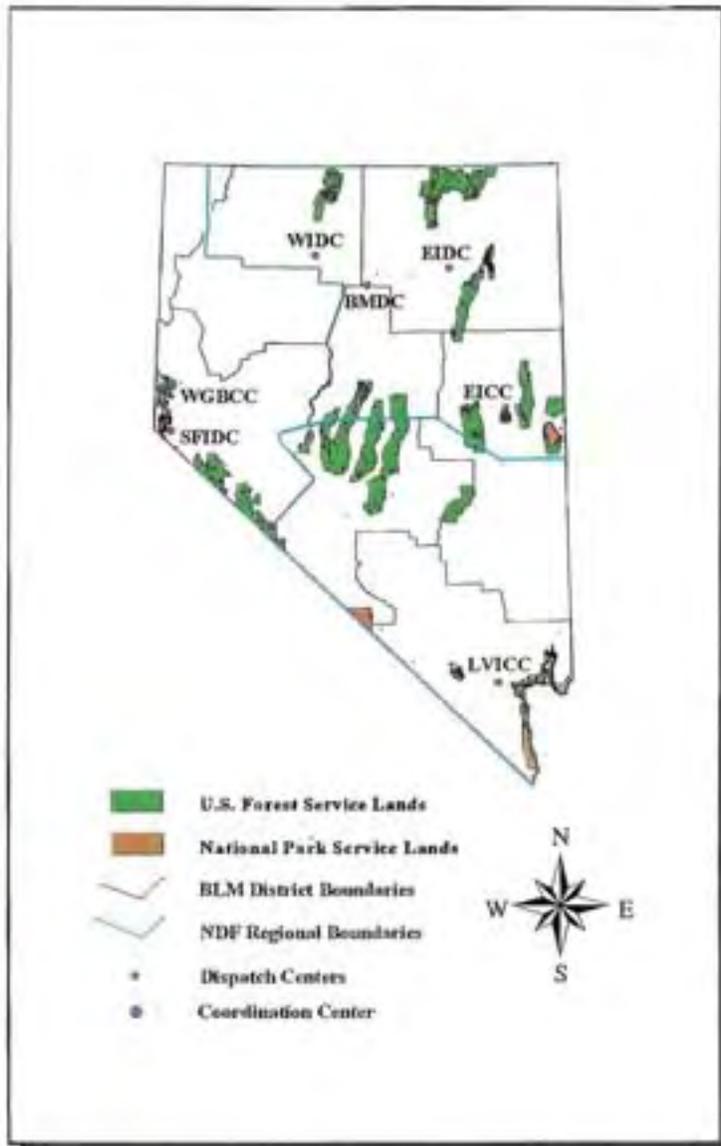
Aviation Summary

Great Basin Fuel Moisture Analysis

The Western Great Basin Coordination Center (WGBCC) provides direction and assistance in the mobilization and demobilization of resources between Nevada Dispatch Centers and the Boise Smokejumper Base, the Eastern Great Basin Coordination Center, the Northern and Southern California Operations Coordination Centers, and the National Coordination Center.

The WGBCC represents the BIA, BLM, FWS, NDF, NPS and the USFS Wildfire Agencies within the Nevada Geographic Area.

Local Dispatch Centers within the Western Great Basin Area



Elko Interagency Dispatch Center (EIDC), supporting the BLM's Elko District, the northeastern portion of the USFS' Humboldt-Toiyabe National Forest, the BIA's Eastern Nevada Agency, the USFWS' Ruby Lake Refuge, and the NDF's Northern Region.

Winnemucca Interagency Dispatch Center (WIDC), supporting the BLM's Winnemucca District, the northern portions of the BIA's Western Nevada Agency, and the northwestern portion of the USFS' Humboldt-Toiyabe National Forest.

Sierra Front Interagency Dispatch Center (SFIDC), located in Minden, supporting the BLM's Carson City District, the western and central portions of the USFS' Humboldt-Toiyabe National Forest, the BIA's Western Nevada Agency, the USFWS' Fallon, Stillwater and Anaho Island National Wildlife Refuges, and the NDF's Western Region.

Ely Interagency Communication Center (EICC), supporting the BLM's Ely District, the east-central portions of the USFS' Humboldt-Toiyabe National Forest, and the NPS' Great Basin National Park.

Las Vegas Interagency Communication Center (LVICC), supporting the BLM's Las Vegas District, the southern portion of the USFS' Humboldt-Toiyabe National Forest, the NPS' Lake Mead National Recreation Area, the USFWS' Pahrnagat, Desert, and Ash Meadows National Wildlife Refuges, the NDF's Southern Region, Nellis Air Force Base, and the Department of Energy's Nevada Test Site.

Battle Mountain Dispatch Center (BMDC), supporting the BLM's Battle Mountain District.

Western Great Basin Area 1997 Fire Season Overview

Weather and Fuels

New Year's 1997 entered western Nevada in a pontoon boat. Heavy, wet Christmas snows were followed by torrential rain along the Sierra Front, so that New Year's Day brought major flooding to Reno, Carson City, and other localities along the Truckee, Carson, and Walker rivers. Above normal precipitation was also measured in much of northeastern and central Nevada, while southeastern Nevada suffered under extreme drought conditions.

After mid-winter's heavy rains, the dry, warm conditions in March and April led fuels at the lower elevations to begin greening up early. By mid-May, fuels were far enough along that large fire activity got off to an early start. However, rainfall amounts in June broke a 100 year record; these soaking rains teamed with warm temperatures to bring about a second green-up and delay curing in much of northern Nevada. July and August saw continued mild weather conditions: slightly cooler than normal temperatures, higher humidities and precipitation at key points in the vegetative cycle. This kept the fuel moistures at normal levels. Along with lighter fuel loadings, these weather factors helped to moderate large fire activity.

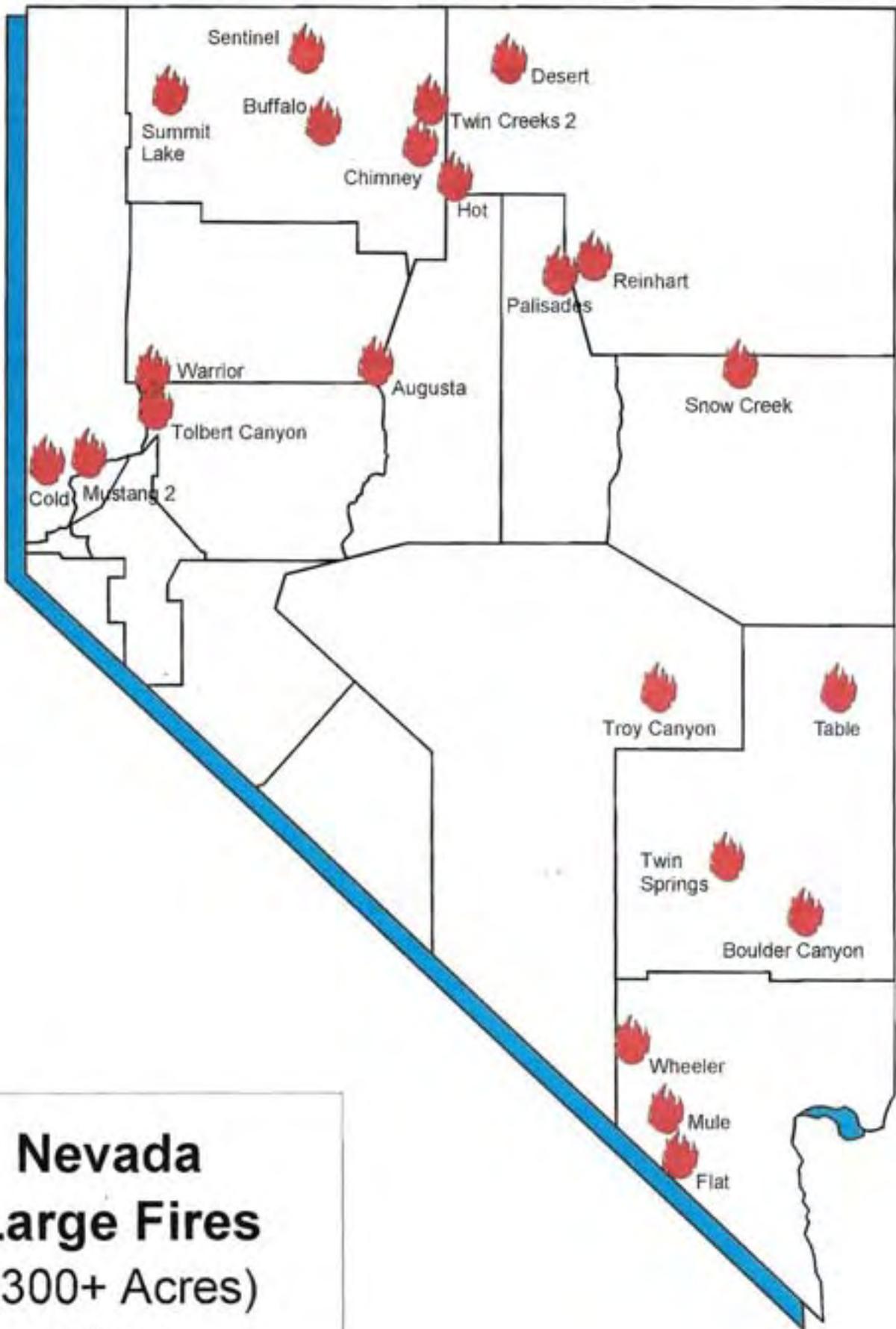
Since lightning usually accounts for up to 3/4 of the fires reported each year, the presence of rain plays a significant role in the number and severity of fires reported; much of 1997's lightning was accompanied by rain, averting an overload situation. In 1997, 60% of the 703 fires were lightning-caused, accounting for 62% of the 44,825 acres burned.

Large Fire Activity

Early season thunderstorms sparked large fire activity in mid-May, with 3 fires burning a total of 4,917 acres. The June rains brought a significant decrease in fire activity, with activity remaining light from late May through the end of June. July brought an increase in both initial attack and large fire activity, with 16 of the large fires (73%) occurring between July 1 and August 13. In mid-August, fire activity dropped off again. The last large fire of the season was controlled on November 7. In all, 22 large fires were reported for a total of 40,125 acres burned; this represents only 3% of the total number of fires this season, but fully 90% of the total number of acres burned.

Incident Management Teams

One Incident Management Team assignment occurred within the area in 1997, when Burdick's Type 2 Team was mobilized to the Potosi Complex on the Toiyabe National Forest. This is in sharp contrast to the 1996 season, when 16 team assignments took place within the Western Great Basin. In addition to this internal assignment, Birch's Type 1 Team was mobilized to the BLM's Flat fire in Utah.



Nevada
Large Fires
(300+ Acres)
1997

Historical Comparison

The same weather system that brought the first large fires of the year also brought 53 initial attack fires during the week of May 12-19; 56 fires burned 5,573 acres. This was 246% of the fires and 11 times the number of acres burned on average by that date over the last four years. Unlike the 1996 season, this level of activity was not sustained in 1997. Activity dropped off, with the majority of the fires occurring in July and early August.

During the period from 1992 through 1996, Western Great Basin units reported an average of 896 fires and 294,714 acres burned per year. 1996's Dutch Flat and Quinn fires each accounted for more acres burned individually (at 67,643 acres and 57,707 acres respectively) than were burned during the entire 1997 season. Even though the number of fires in 1997 was 78% of the 5-year average, weather factors and normal fuel moistures limited the number of acres burned to only 18% of the 5-year average.

Large Incident Summary and Workload by Dispatch Center

<u>Dispatch Center</u>	<u>Incident Name</u>	<u>Number</u>	<u>Agency</u>	<u>Size at Control</u>	<u>Date of Control</u>	<u>Team Assigned</u>
EIDC	Palisades	X029	BLM-EKD	458 ac.	7/06/97	
	Desert	X041	BLM-EKD	300 ac.	7/28/97	
	Reinhart	X063	BLM-EKD	661 ac.	8/04/97	
	Hot	X089	BLM-EKD	754 ac.	8/10/97	
WIDC	Tolbert Canyon	X354	BLM-WID	4,017 ac.	5/16/97	
	Sentinel	X384	BLM-WID	8,750 ac.	7/17/97	
	Augusta	X387	BLM-WID	405 ac.	7/27/97	
	Summit Lake	X404	BLM-WID	3,348 ac.	8/08/97	
	Twin Creeks 2	X416	BLM-WID	1,645 ac.	8/10/97	
	Chimney	X417	BLM-WID	498 ac.	8/10/97	
	Warrior	X418	BLM-WID	3,353 ac.	8/12/97	
	Buffalo	X420	BLM-WID	1,724 ac.	8/12/97	
SFIDC	Mustang II	X647	BLM-CCD	379 ac.	9/04/97	
	Cold	X668	BLM-CCD	375 ac.	11/7/97	
EICC	Boulder	Y006	BLM-ELD	300 ac.	5/16/97	
	Table	Y044	BLM-ELD	7,700 ac.	9/03/97	
	Twin Springs	Y086	BLM-ELD	600 ac.	8/08/97	
	Troy Canyon	P44923	USFS-HUF	808 ac.	9/02/97	
	Snow Creek	Y105	BLM-ELD	575 ac.	8/13/97	
LVICC	Wheeler	P47821	USFS-TOF	600 ac.	5/18/97	
	Potosi Complex:					Burdick (T2)
	Flat	P47883	USFS-TOF	1,950 ac.	8/10/97	
Mule	P47884	USFS-TOF	925 ac.	8/10/97		

**Western Great Basin Area
1997 Fire Statistical Summary**

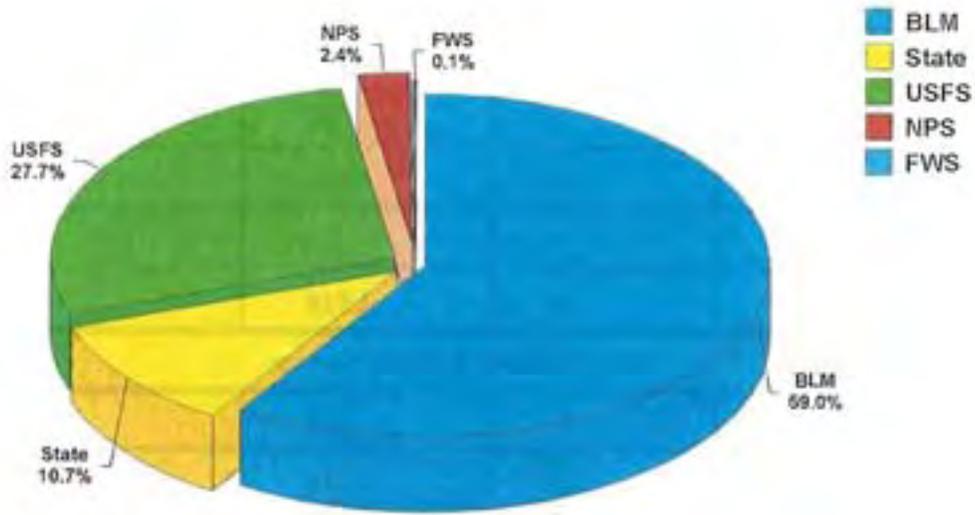
Unit/Agency	Fires by Cause		Acres by Cause		Total Fires	Total Acres
	Human	Lightning	Human	Lightning		
Bureau of Land Management						
Elko FO	29	39	602	1,775	68	2,377
Winnemucca FO	36	42	14,055	11,520	78	25,575
Carson City FO	47	42	735	481	89	1,216
Ely FO	20	85	324	9,940	105	10,264
Las Vegas FO	16	21	279	17	37	296
Battle Mountain FO	9	29	10	50	38	60
Agency Totals	157	258	16,005	23,783	415	39,788
U.S. Fish and Wildlife Service						
Ruby Lake NWR	0	0	0	0	0	0
Pahrnagat/Desert NWRs	1	0	250	0	1	250
Agency Totals	1	0	250	0	1	250
National Park Service						
Great Basin NP	0	2	0	0	2	0
Lake Mead NRA	15	0	2	0	15	2
Agency Totals	15	2	2	0	17	2
Nevada Division of Forestry						
Northern Region	33	17	252	69	50	321
Western Region	15	10	52	45	25	97
Southern Region	0	0	0	0	0	0
Agency Totals	48	27	304	114	75	418
U.S. Forest Service						
Humboldt NF	3	4	833	241	7	1,074
Toiyabe NF	63	125	13	3,280	188	3,293
Agency Totals	66	129	846	3,521	195	4,367
Geographic Area Totals						
	287	416	17,407	27,418	703	44,825

Note: BLM totals include other agency/private acres burned.

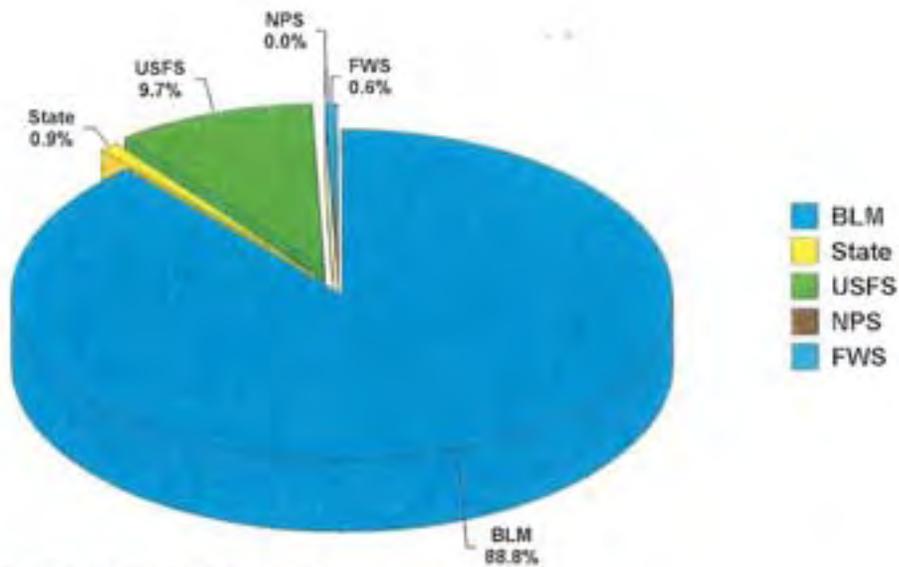
1997 Prescribed Fire Activity

<i>Agency/Unit</i>	<i>Management Ignited</i>		<i>Prescribed Natural</i>	
	<i>Fires</i>	<i>Acres</i>	<i>Fires</i>	<i>Acres</i>
<i>Bureau of Land Management</i>				
<i>Elko FO</i>	2	1,605		
<i>Carson City FO</i>	2	96		
<i>Ely FO</i>	1	1,800		
<i>Las Vegas FO</i>	1	15		
<i>Agency Totals</i>	6	3,516		
<i>U.S. Fish and Wildlife Service</i>				
<i>Ruby Lake NWR</i>	1	230		
<i>Agency Totals</i>	1	230		
<i>Nevada Division of Forestry</i>				
<i>Northern Region</i>	1	15		
<i>Agency Totals</i>	1	15		
<i>U.S. Forest Service</i>				
<i>Toiyabe (North)</i>	9	2,596		
<i>Agency Totals</i>	9	2,596		
<i>Geographic Area Totals</i>				
	17	6,357		

Fire Occurrence by Agency 1997

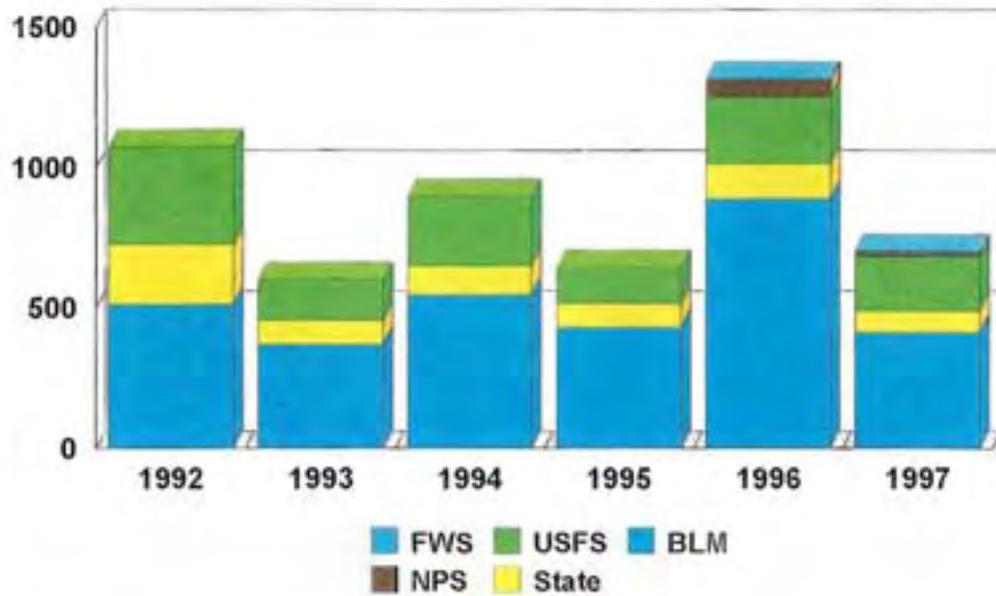


Acres Burned by Agency 1997

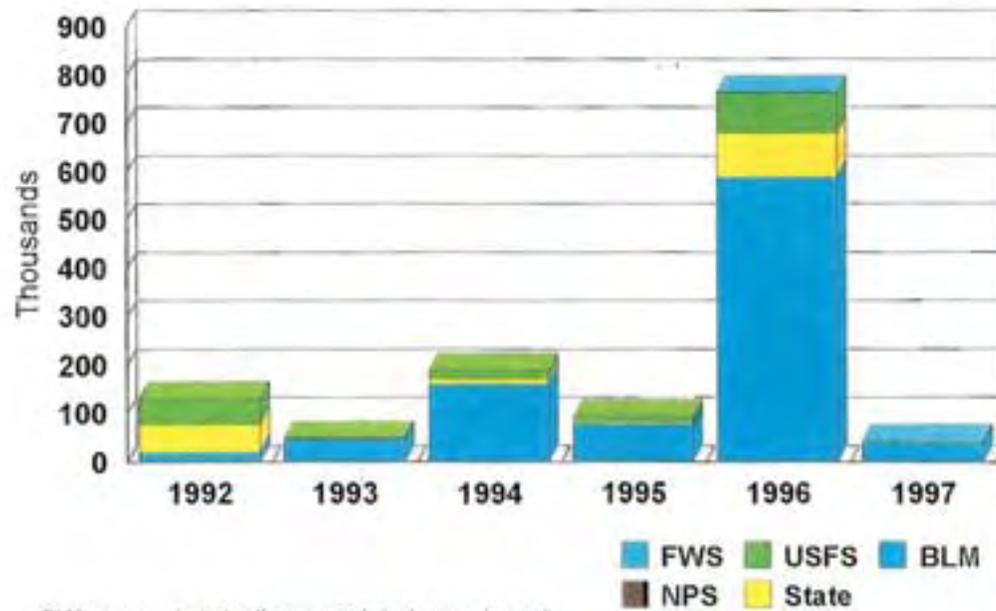


BLM acreages include other agency/private acres burned

Western Great Basin Total Number of Fires 1992-1997



Western Great Basin Total Acres Burned 1992-1997



BLM acreages include other agency/private acres burned.

1997 Incident Support Summary

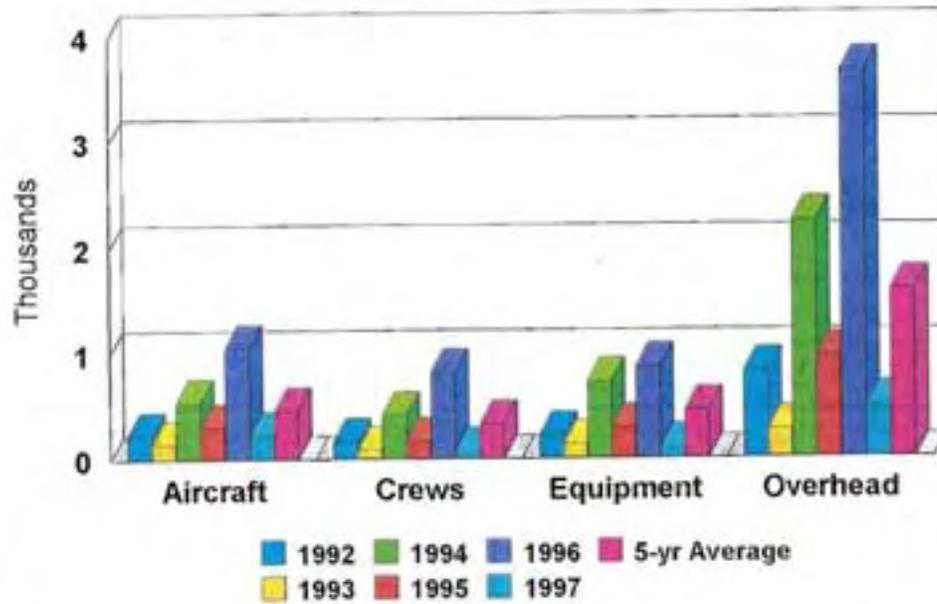
Total Resource Requests Processed
(by Resource Type and Dispatch Center Placing the Order)
1997

Dispatch Center	Aircraft	Crews	Equipment	Overhead	Total
EIDC	27	4	11	12	54
WIDC	50	10	22	35	117
SFIDC	24	16	4	24	68
EICC	36	19	19	41	115
LVICC	26	15	18	92	151
BMDC	14	7	22	22	65
EGBCC	5	4	5	78	92
WGBCC	28	1	7	56	92
NZCC	15	2	0	0	17
NICC	15	9	1	139	164
Other*	1	1	0	2	4
Totals	241	88	109	501	939

* "Other" includes SZCC (Aircraft), and the BLM Boise Smokejumpers (Overhead).

Note: All statistics are for orders processed through the Western Great Basin Coordination Center only. They do not include dispatches on home units or to neighboring units under initial attack agreements (if less than 24 hours in duration). Supply orders are not included.

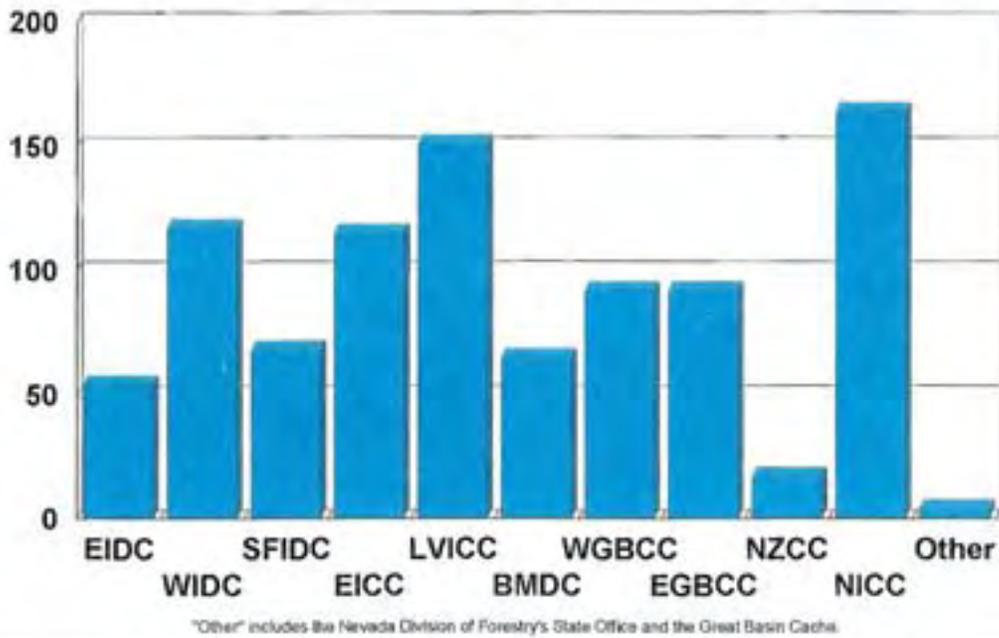
Total Requests Processed by Resource Type 1992-1997



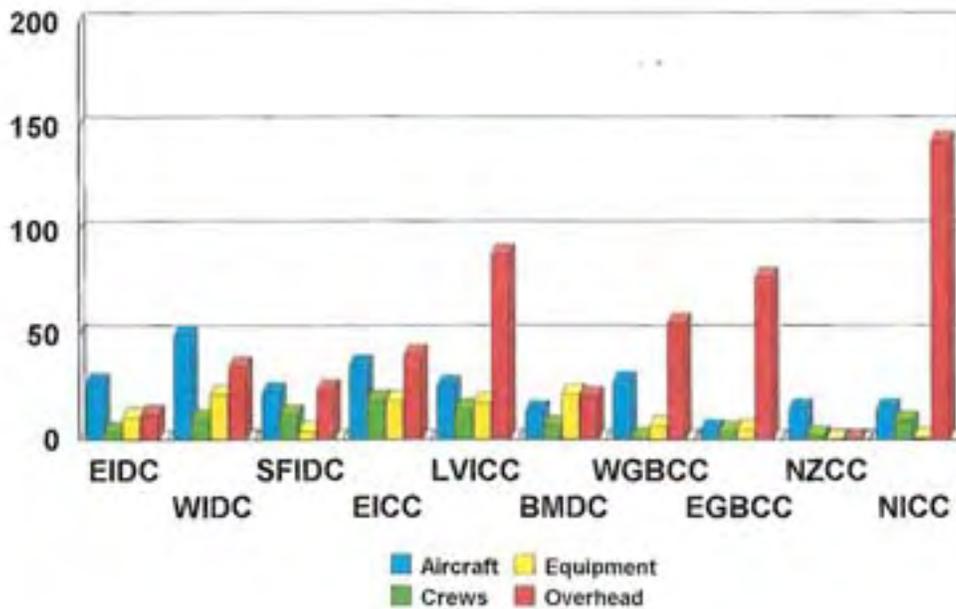
Total Resource Requests Processed by Year 1992-1997

Year	Aircraft	Crews	Equipment	Overhead	Total
1992	235	174	225	828	3,454
1993	152	94	140	275	2,654
1994	547	420	736	2,256	5,953
1995	319	176	297	972	3,759
1996	1,060	823	877	3,670	8,426
1997	240	84	109	501	2,931
5-yr. Average	463	337	455	1,600	4,849

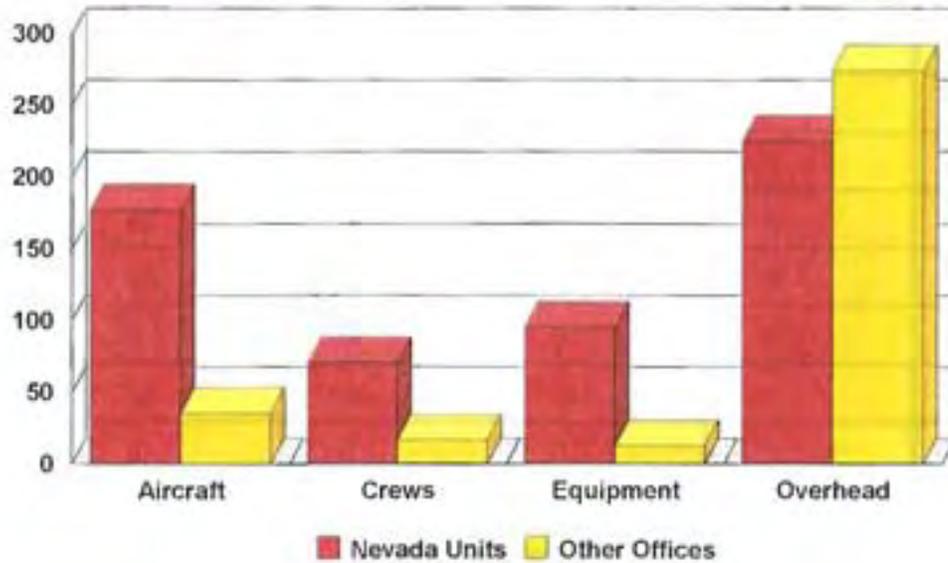
Total Resource Requests by Ordering Office 1997



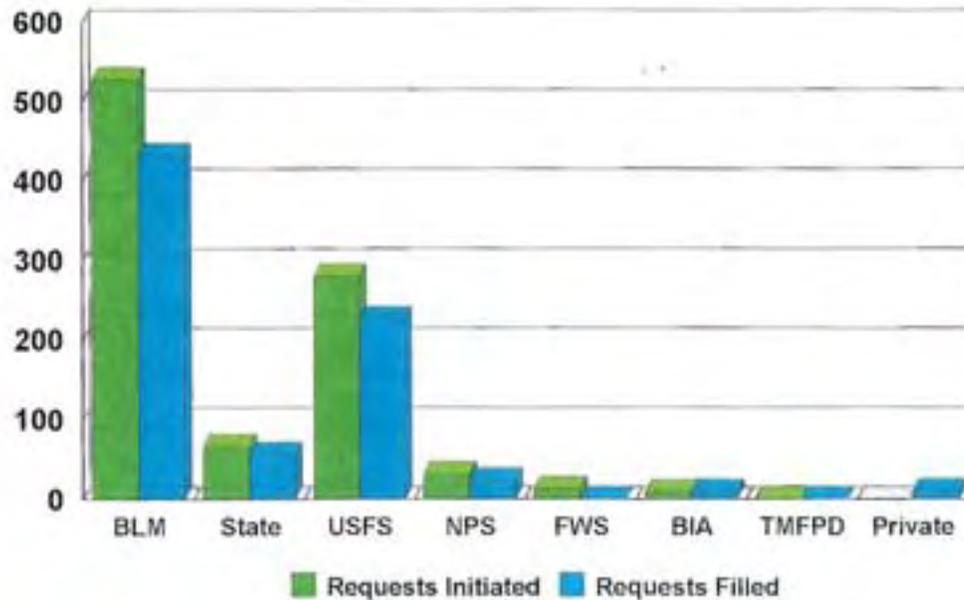
Total Resource Requests by Ordering Office 1997



Total Requests Processed, by Type Initiated by Nevada Units or Elsewhere 1997



Total Requests Processed Separated by Agency 1997



Total Number of Requests Initiated
(by Resource Type and Agency Generating Request)
1997

Agency	Aircraft	Crews	Equipment	Overhead	Total
BLM	155	46	85	250	536
USFS	65	30	20	166	281
NDF	9	9	0	3	21
BIA	4	0	3	2	9
NPS	0	2	1	29	32
FWS	0	0	0	13	13
Other Federal	0	0	0	0	0
Other State**	7	1	0	38	46
County	1	0	0	0	1
Totals	241	88	109	501	939

** "Other State" includes Idaho, Utah, California and Alaska.

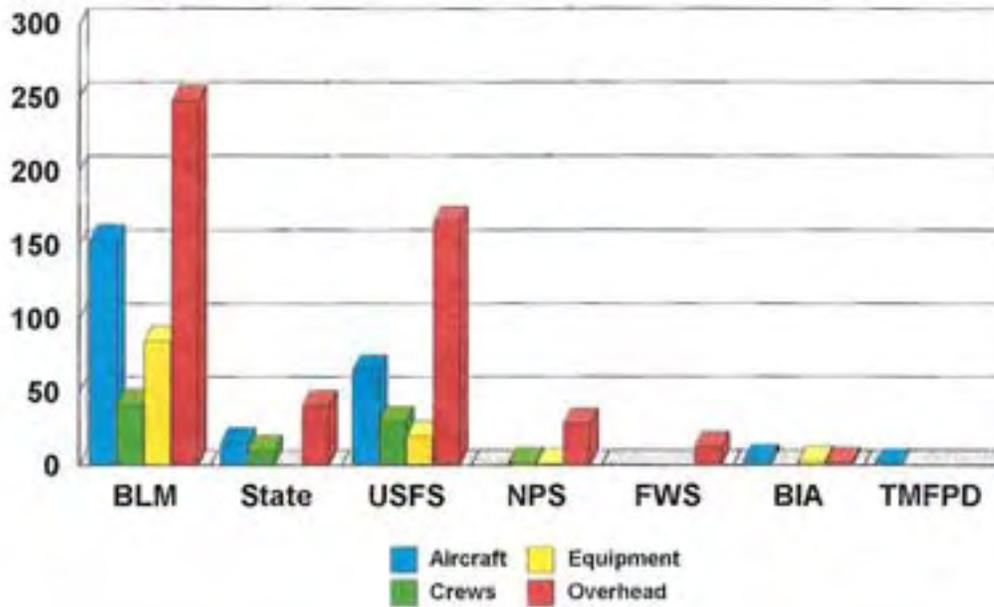
Total Number of Requests Filled
(by Resource Type and Agency Filling Request)
1997

Agency	Aircraft	Crews	Equipment	Overhead	Total
BLM	101	17	67	249	434
USFS	67	27	23	107	224
NDF	5	28	5	12	50
BIA	0	5	0	5	10
NPS	0	0	5	19	24
FWS	0	0	0	0	0
Other Federal*	19	0	0	0	19
Other State**	2	7	0	2	11
County	0	0	0	2	2
Private	5	0	4	2	11
Cancelled	31	2	5	41	79
Can't Fill	11	2	0	62	75
Totals	241	88	109	501	939

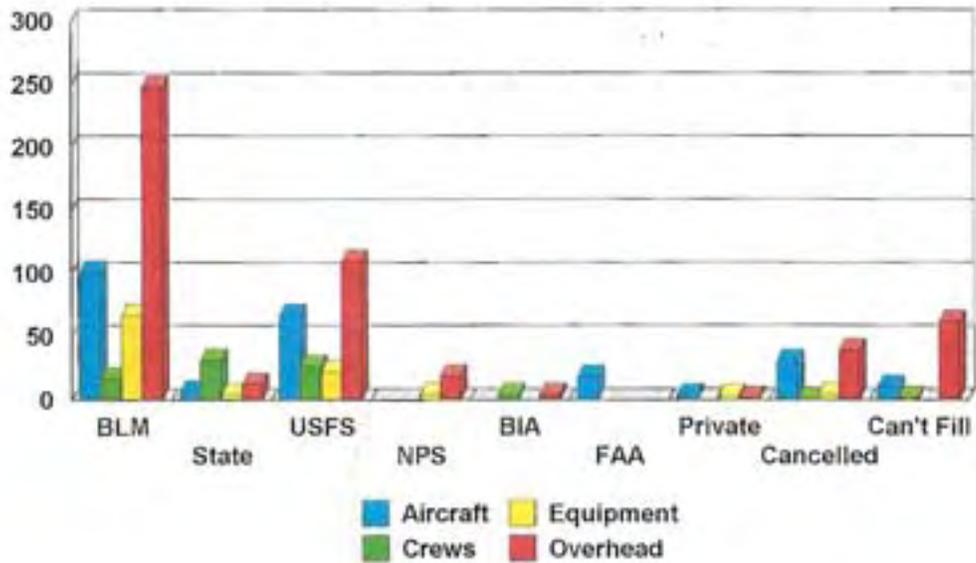
* "Other Federal" includes Temporary Flight Restrictions filled by the FAA.

** "Other State" includes Idaho, Utah and California.

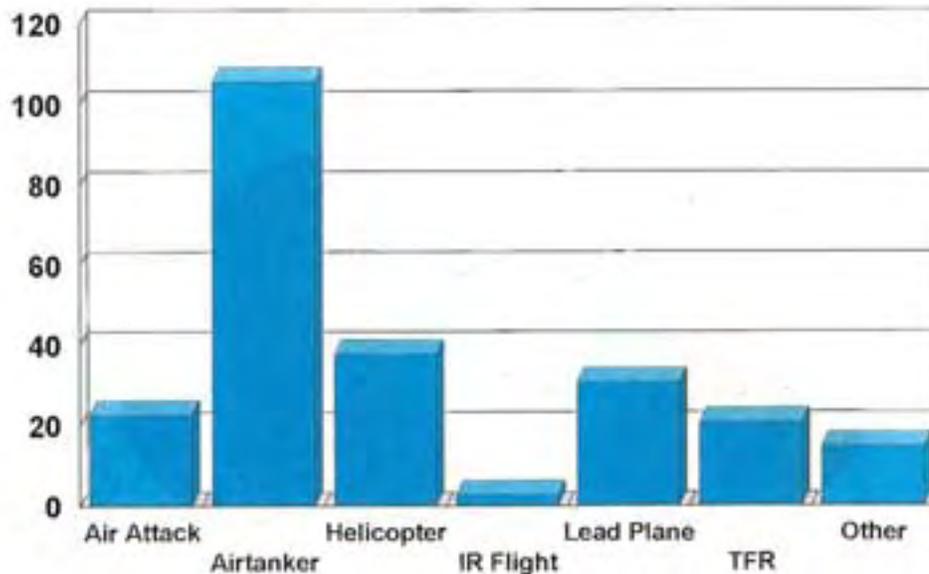
Total Resource Requests Initiated by Agency 1997



Total Requests Filled by Agency 1997



Aircraft Requests Processed Separated by Type 1997



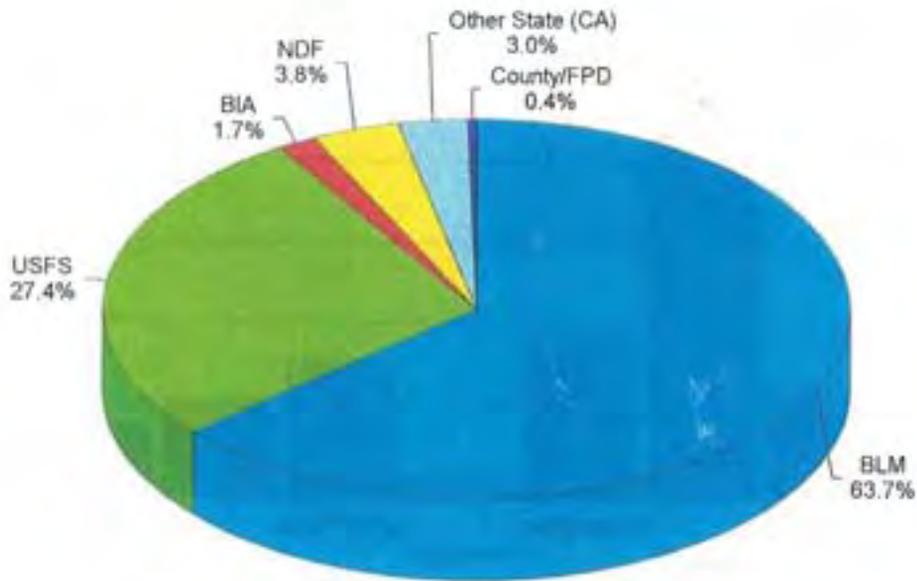
Note: "Other" category includes frequencies, air attack aircraft w/o ATGS, smokejumper a/c, portable FAA towers, and SEATs.

Total Aircraft Requests Processed (by Resource Type and Agency Initiating Request) 1997

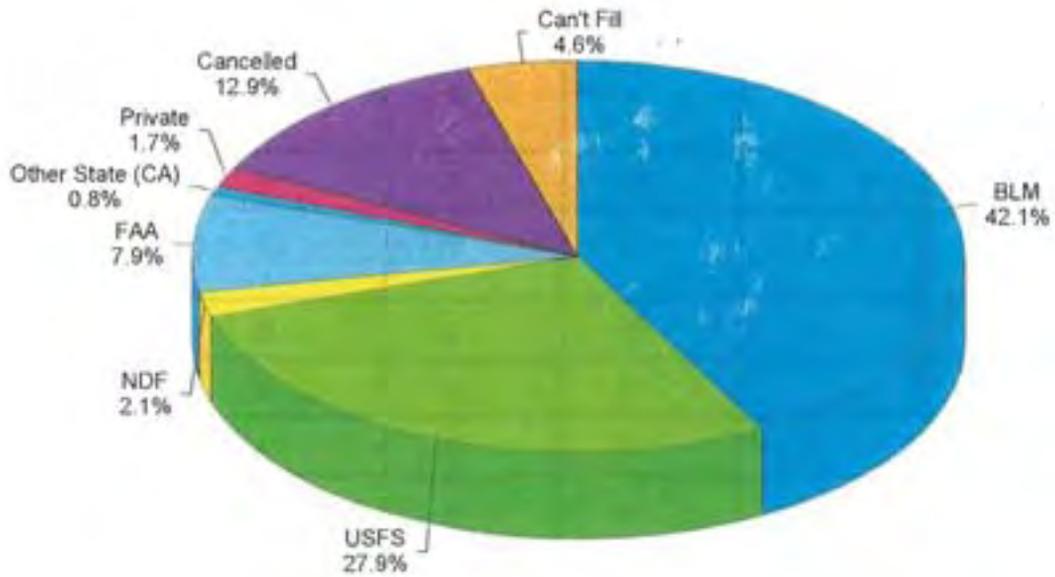
Resource Type	BLM	USFS	BIA	NDF	Other	Total
Air Attack AC w/ ATGS	17	3	1	2	0	23
Air Attack AC w/o ATGS	1	4	0	0	0	5
Airtanker	72	24	0	4	6	106
Single Engine Airtanker	2	1	0	1	1	5
Helicopter	21	15	1	0	1	38
IR Flight	0	3	0	0	0	3
Lead Plane	23	7	2	2	0	34
Smokejumper Aircraft	4	2	0	0	0	6
TFR	15	6	0	0	0	21
Totals	155	65	4	9	8	241

* "Other " includes California State and Truckee Meadows Fire Protection District.

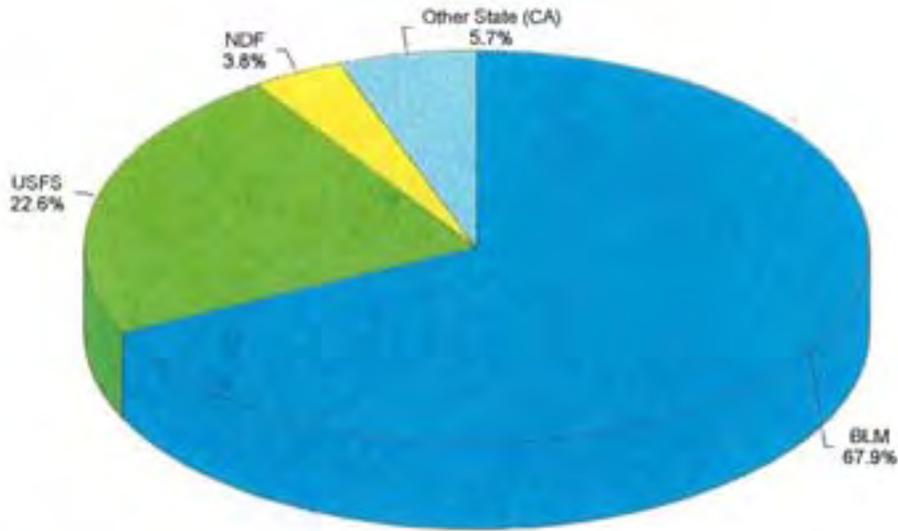
Aircraft Requests Initiated by Agency 1997



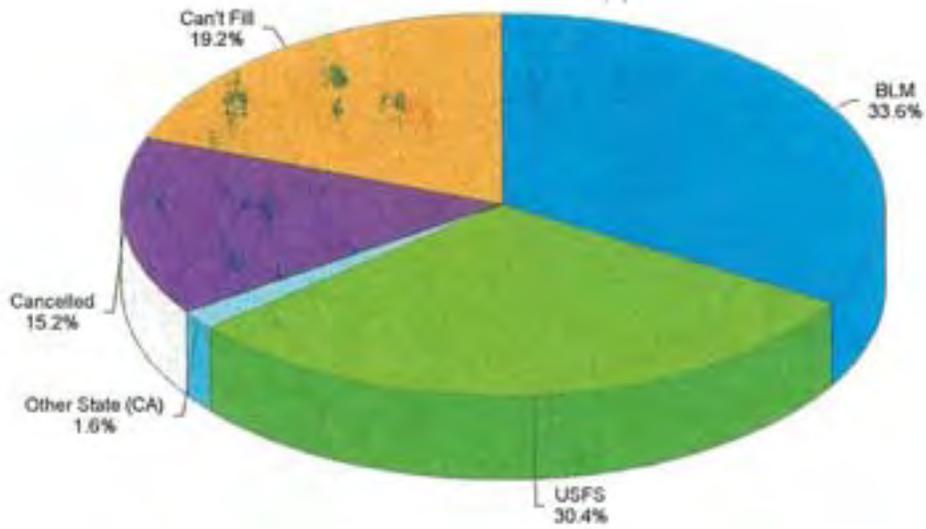
Aircraft Requests Filled by Agency 1997



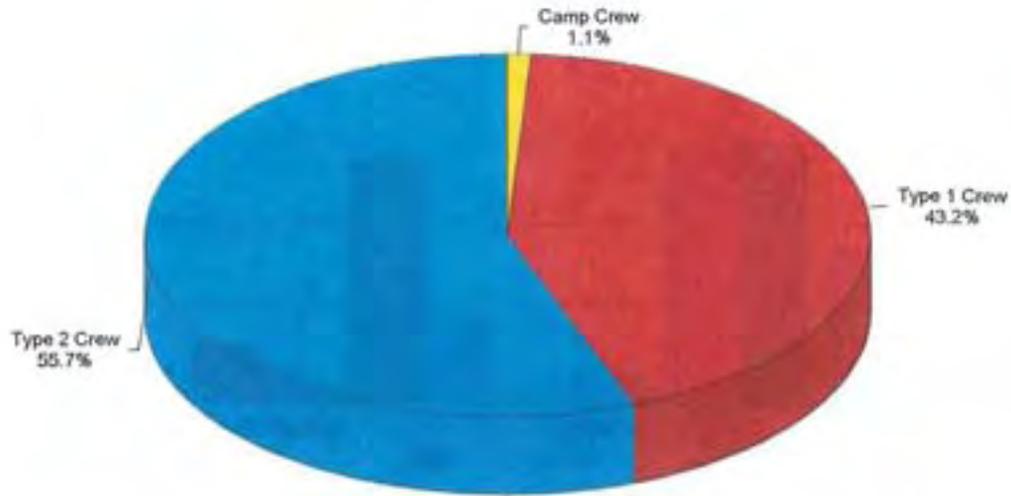
Airtanker Requests Initiated by Agency 1997



Airtanker Requests Filled by Agency 1997



Crew Requests by Type 1997

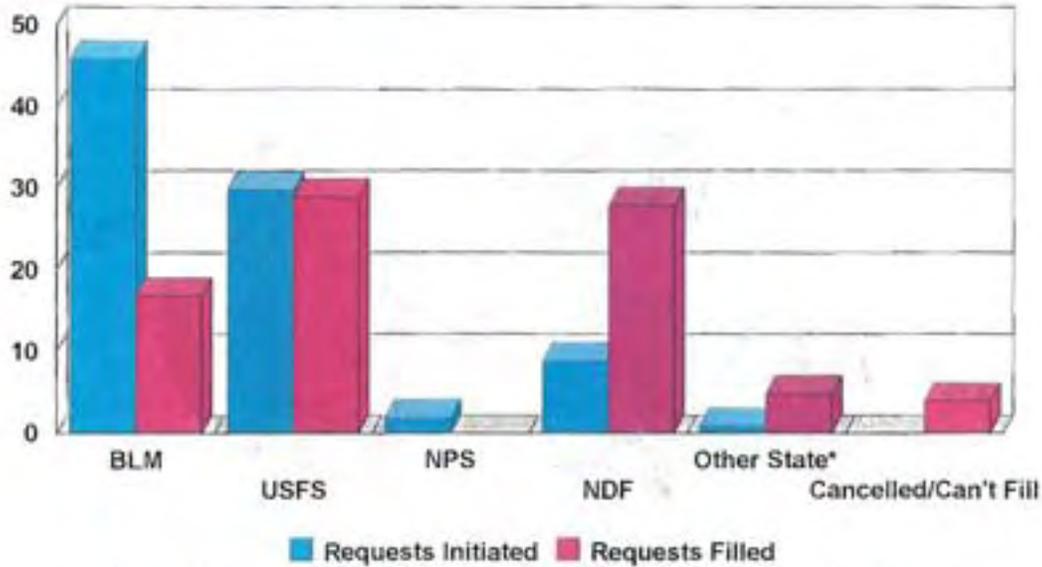


Total Crew Requests Processed (by Crew Type and Agency Initiating Request) 1997

Agency	Type 1 Crew	Type 2 Crew	Camp Crew	Total
BLM	14	32	0	46
USFS	22	7	1	30
NDF	0	9	0	9
NPS	2	0	0	2
Other State*	0	1	0	1
Totals	38	49	1	88

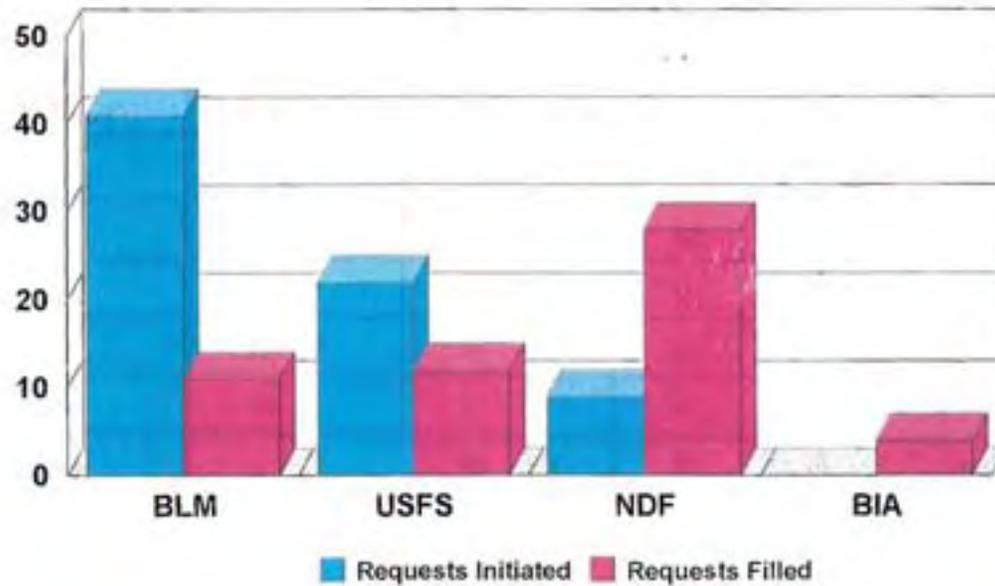
* "Other State" includes Idaho.

Crew Requests by Agency All Requestors 1997

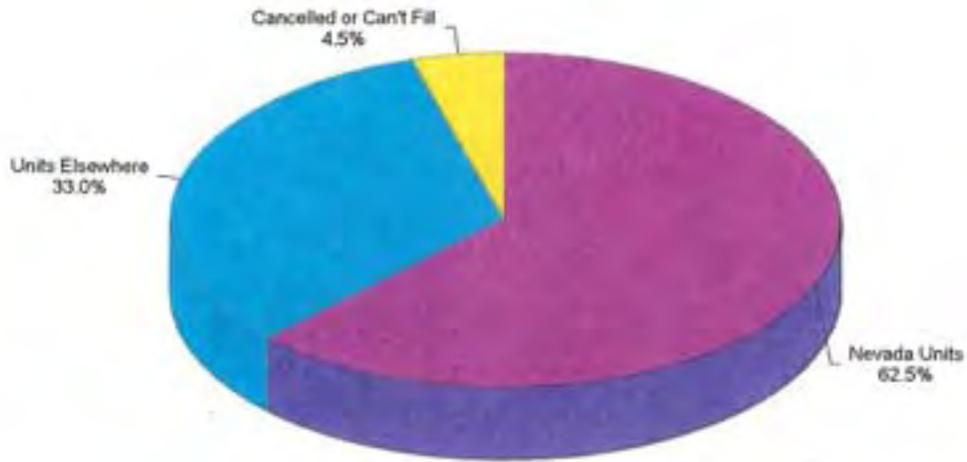


*Other States placing requests included Idaho. Other States filling requests included Utah and California.

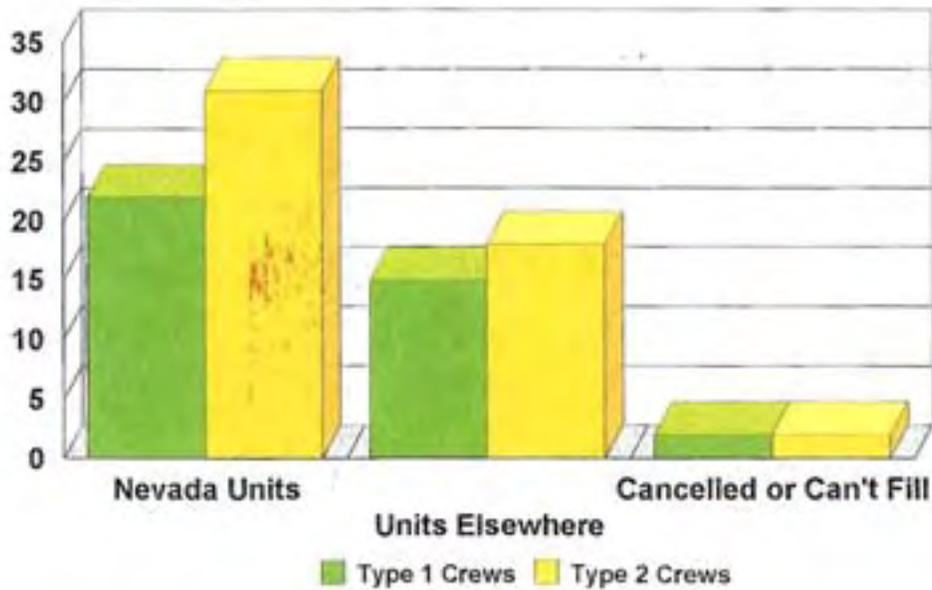
Crew Requests by Agency Nevada Units 1997



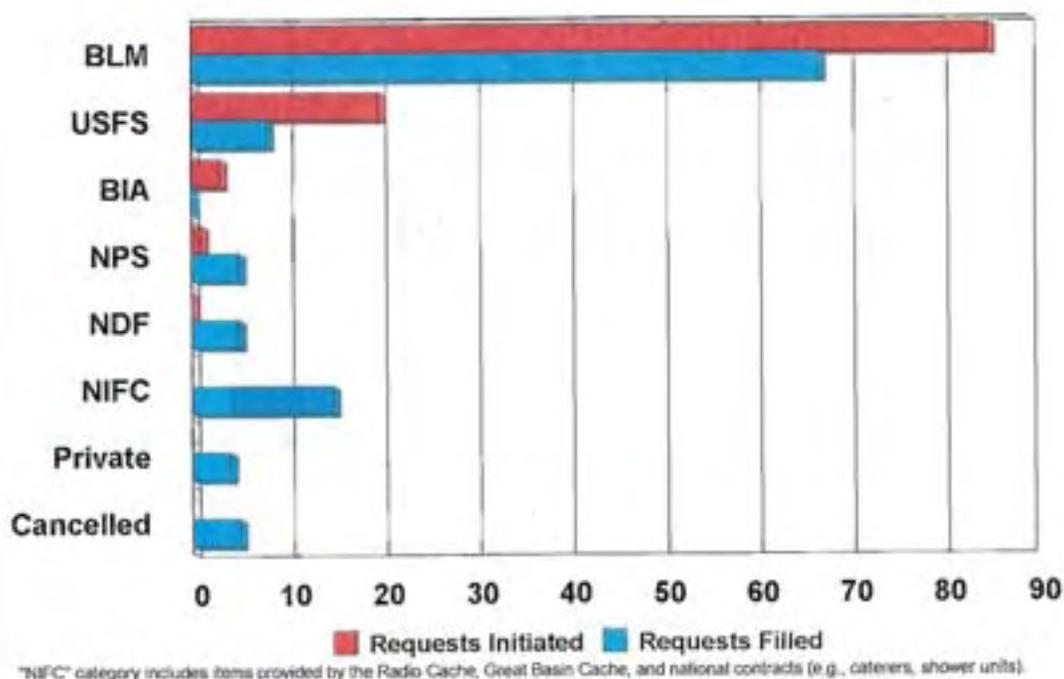
**Crew Requests Processed
Filled by Nevada Units or Elsewhere
1997**



**Crew Requests by Type
Filled by Nevada Units or Elsewhere
1997**



Equipment Requests by Agency 1997



Total Equipment Requests Processed (by Request Type and Agency Initiating Request) 1997

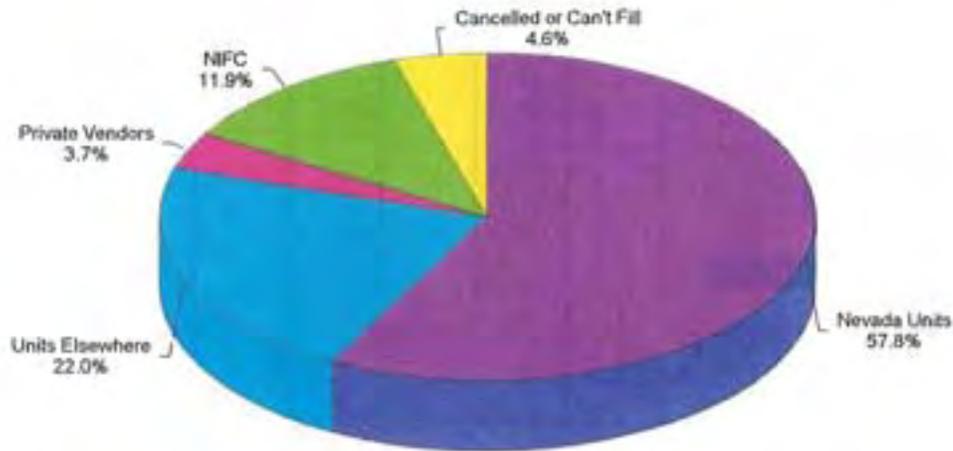
Resource Type	BLM	USFS	Other Federal*	Total
Buses	2	0	0	2
Engines	69	11	0	80
Water Tenders	3	1	0	4
Potable Water Trucks	0	1	0	1
Cache Vans	1	1	0	2
Radios**	10	1	0	11
Contract Caterers	0	3	1	4
Shower Units	0	1	1	2
Miscellaneous Other***	1	1	1	3
Totals	86	20	3	109

* "Other Federal" includes BIA and NPS.

** "Radios" includes both radio kits and repeaters.

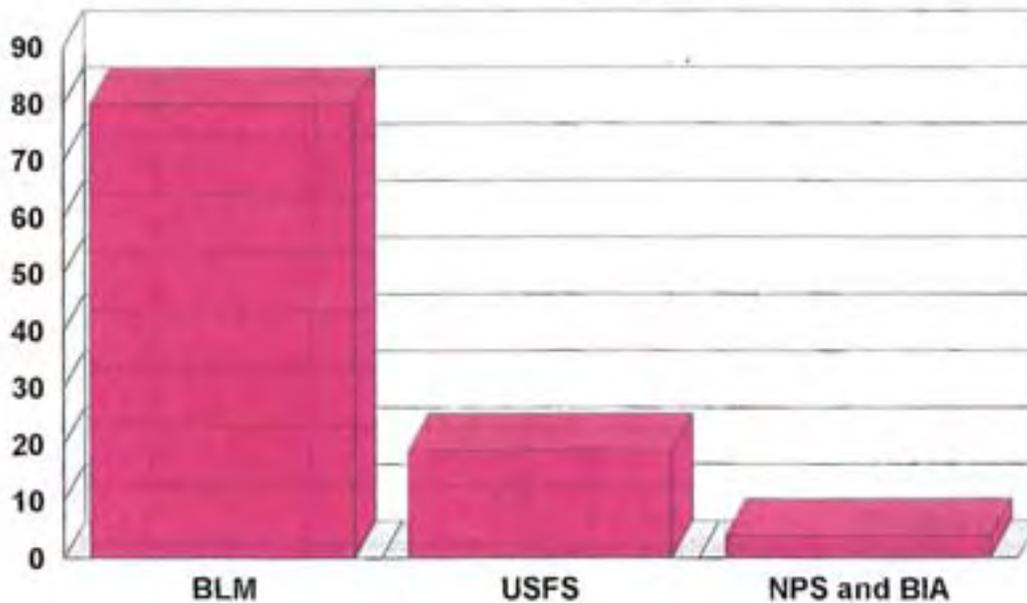
*** "Misc. Other" includes a laundry unit, cellular phone kit, and helibase trailer.

Equipment Requests Processed by Location of Resource Filling the Request 1997

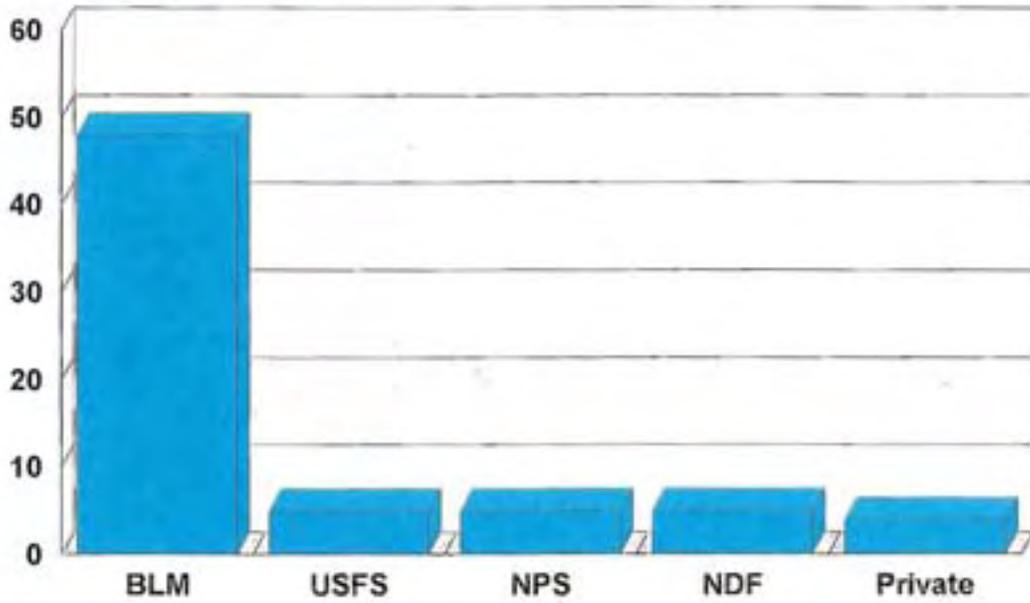


NFC category includes items provided by the Radio Cache, Great Basin Cache, and national contracts (e.g., caterers, shower units).

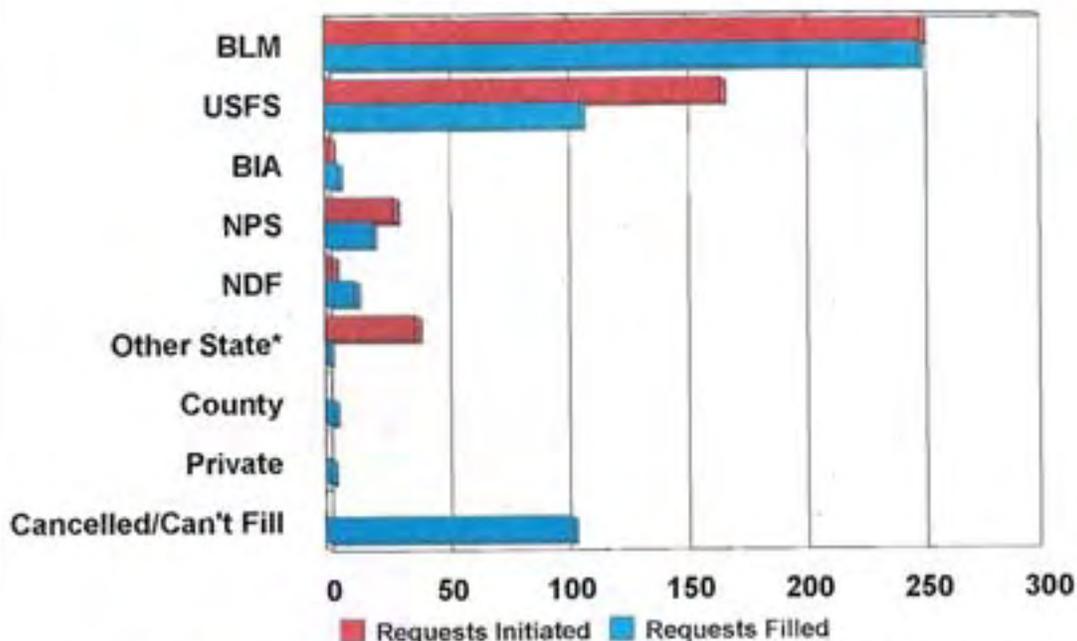
Equipment Requests Initiated by Nevada Units (Accounting for 94% of all Equipment Requests Processed by WGBCC) 1997



Equipment Requests Filled by Nevada Units
(Accounting for 61% of all Equipment Requests Filled by WGBCC)
1997



Overhead Requests by Agency 1997



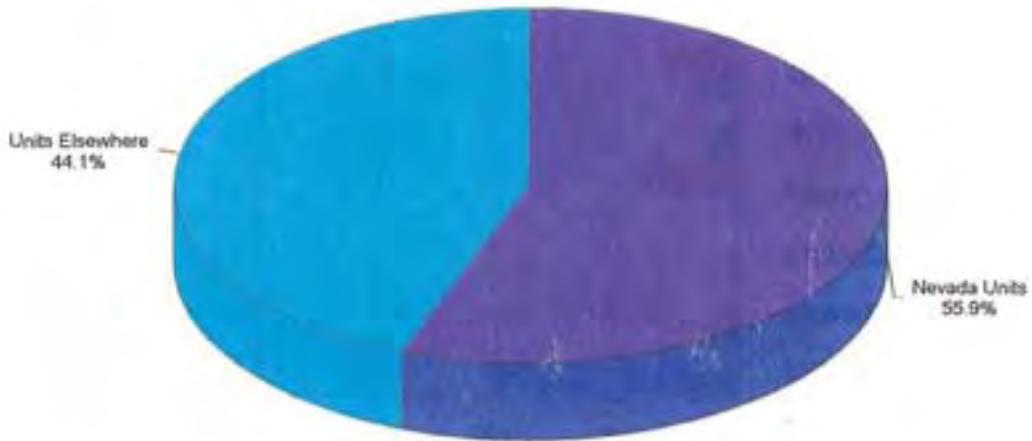
*Other States placing requests included Alaska, Idaho, California and Utah. Other States filling requests included Idaho.

Overhead Requests Classified as "Cancelled or Can't Fill" (by Function) 1997

Function	Can't Fill	Cancelled	Total
Command	7	3	10
Dispatch	3	4	7
Finance	11	2	13
Logistics	11	5	16
Operations	13	16	29
Planning	14	5	19
Technical Specialist	2	5	7
Miscellaneous Other*	1	1	2
Totals	62	41	103

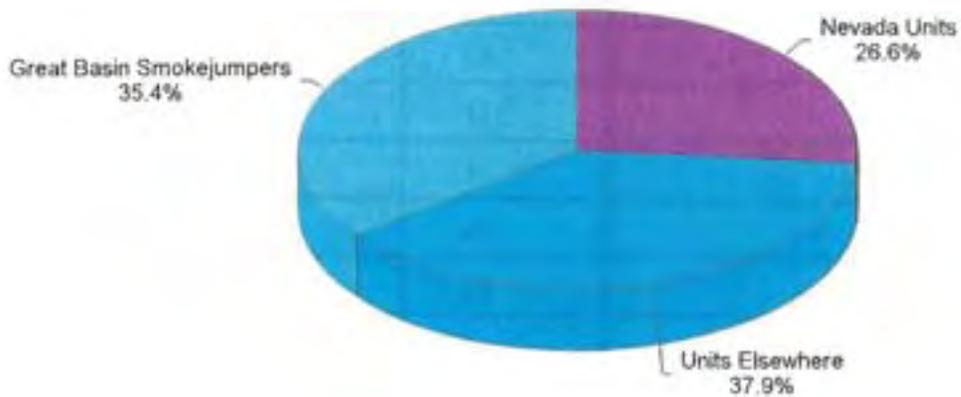
* "Other" category includes the Coordination and Supply function numbers separated from the dispatch category.

Overhead Requests Processed by Location of Unit Initiating the Request 1997

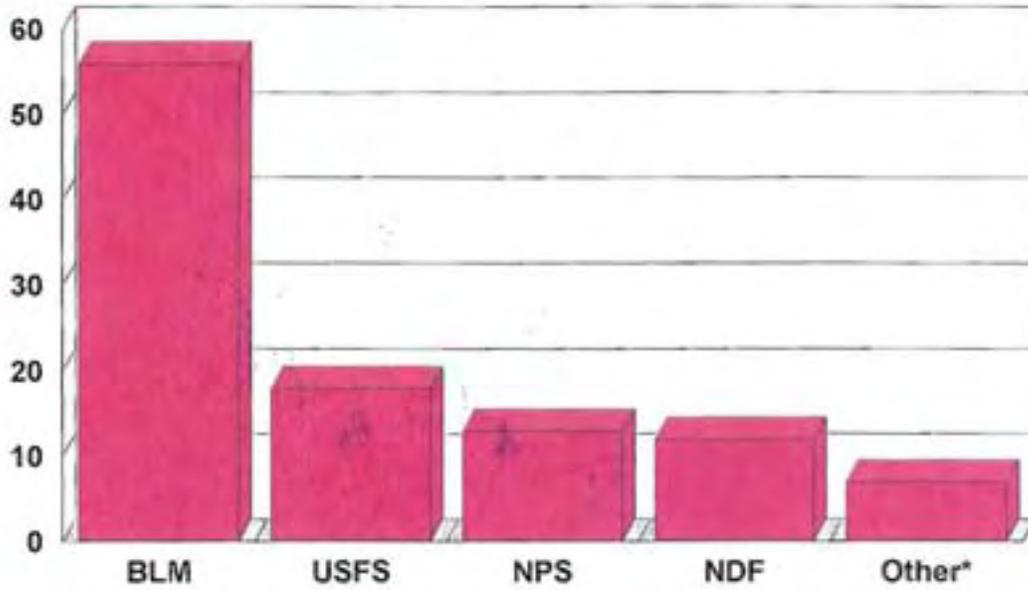


"Units Elsewhere" includes orders from NICC and EGBCC.

Overhead Requests Processed by Location of Resource Filling the Request 1997



Overhead Requests Filled by Nevada Units
(Accounting for 27% of all Overhead Requests Filled by WGBCC)
1997



*"Other" category includes BIA, Truckee Meadows FPO, and Emergency Firefighter resources

Total Smokejumper Requests Processed 1997	
Type of Request	Number of Requests
Initial Attack Load	39
Booster (individual jumpers)	127
Totals	166

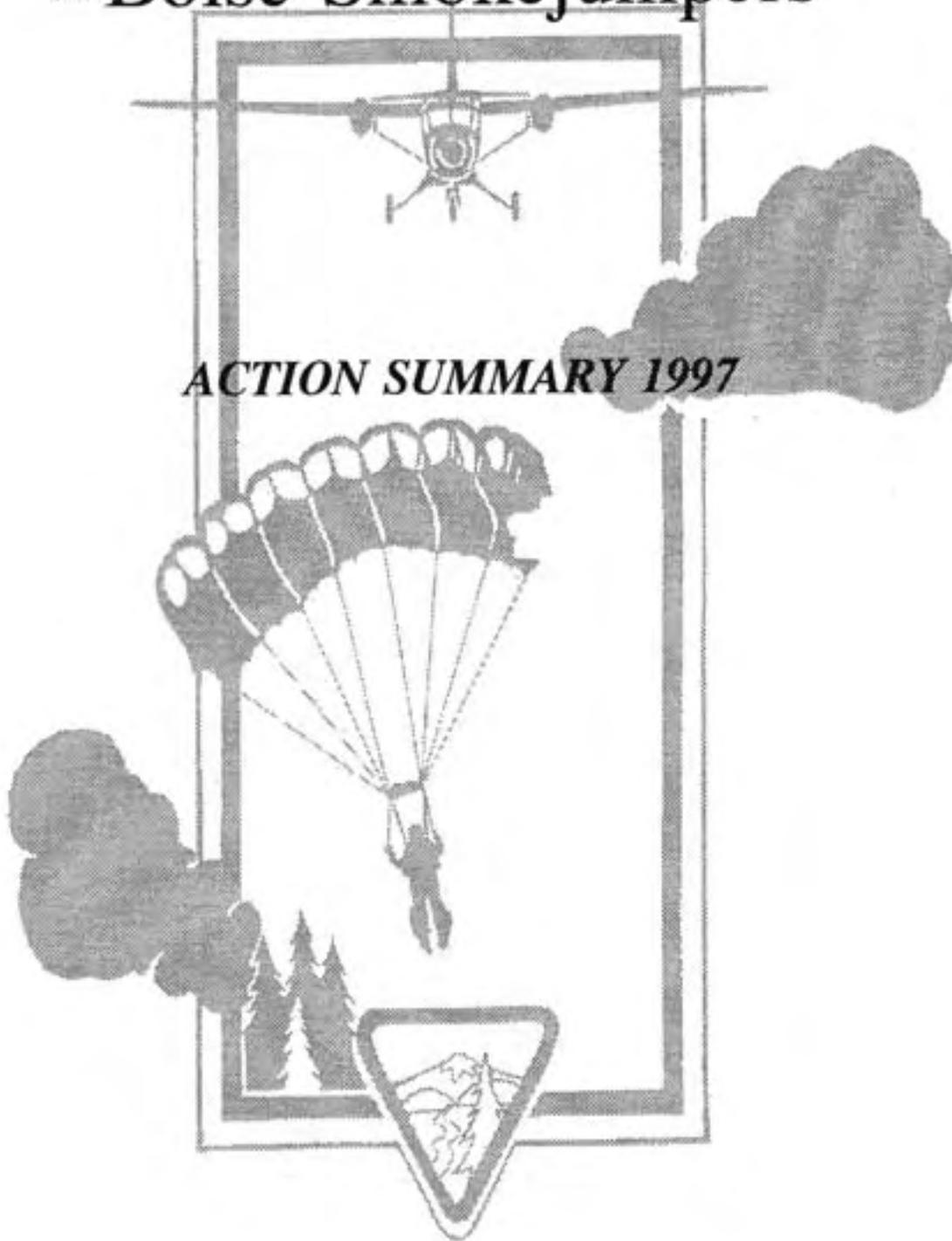
Smokejumper Requests Initiated Separated by Requesting Agency 1997				
Type of Request	BLM	USFS	Other*	Total
Initial Attack Load	38	0	1	39
Booster (individual jumpers)	53	27	47	127
Totals	91	27	48	166

* Other includes BIA, FWS and State.

Smokejumper Requests Filled Separated by Agency Providing the Resource 1997				
Type of Request	BLM	USFS	Cancelled/ Can't Fill	Total
Initial Attack Load	36	0	3	39
Booster (individual jumpers)	100	15	12	127
Totals	136	15	15	166

Bureau of Land Management
Boise Smokejumpers

ACTION SUMMARY 1997



BLM BOISE SMOKEJUMPERS

Action Summary 1997

1997 was a slow fire season in the western United States. The BLM Boise Smokejumpers put 232 firefighters on 41 fires in Colorado, Utah, Nevada, and Idaho. Most activity occurred in Nevada with 21 (52%) of the fires jumped out of Battle Mountain and Ely. Colorado accounted for 24% of the action with 10 fires, while Utah and Idaho accounted for a total of 10 fires. Boise smokejumpers also made 136 fire jumps in Alaska. The first fire was on March 23 in Idaho and the last was in Idaho on October 1.

96% of the initial attack fires were contained within the first twenty-four hours. 71% of the jumper fires in the Great Basin were smaller than 10 acres when attacked, and these fires grew little (13%) in size before control.

13 smokejumpers successfully completed initial ram-air parachute training. This included 5 rookies and 13 transfers from the USFS.

The Boise smokejumpers provided an aircraft and personnel to the USFS's West Yellowstone smokejumper base and received smokejumper support from that base in the Great Basin.

40 Boise smokejumpers executed prescribed burns for BLM and FWS fire managers in New Mexico, Oregon and Idaho. The first prescribed fire assignment began on April 12 and the last terminated on September 30.

Summary Statistics:

Crew configuration: 64

60	Smokejumpers
3	Smokejumper Pilots
1	Staff Assistant

Fires attacked: 41

36	Jumped
5	Driven

Smokejumpers on fire: 232

IA effectiveness (time from IA to containment <24 hours):

IA fires	24/25 (96%)
Reinforcement fires	8/10 (80%)

Training and experimental jumps: 938

Total jumps: 1109

Visiting jumpers used in Boise operations: 28

Alaska 5
McCall 13
West Yellowstone 10

Boise jumpers used in other smj operations: 136

Alaska 136

Fires by location:

State	# fires	Agency	District/Forest	# fires
Colorado	10	BLM	Craig	1
		BLM	Grand Junction	8
		USFS	Uncompahgre NF	1
Idaho	4	BLM	Shoshone	1
		FWS	Deer Flat NWR	1
		USFS	Payette NF	1
		BLM	Boise	1
Nevada	21	BLM	Battle Mtn.	8
		BLM	Elko	4
		BLM	Ely	5
		BLM	Winnemucca	3
		USFS	Humboldt NF	1
Utah	6	BLM	Moab	5
		STATE	Moab	1

Fire missions by departure point: 46 missions to 41 fires

Battle Mtn.	12
Boise	6
Ely	7
Grand Junction	20
St. George	1

Dry runs due to wind, Great Basin operations:

Rounds	1/8 (12%)
Ram Airs	1/36 (2%)

Fires by cause:

Burn pile	1	Campfire	1
Escaped RX (PNF)	1	Lightning	35
Train	1	Unknown	2

Fire size distribution	# of fires	% growth from arrival to control
A (.1-.24 ac.)	11/41 (26.83%)	0%
B (.24-9 ac.)	18/41 (43.90%)	20%
C (10-99 ac.)	5/41 (12.20%)	20%
D (100-299 ac.)	2/41 (4.80%)	57%
E (300-999 ac.)	3/41 (7.32%)	94%
F (1000-4999 ac.)	1/41 (2.44%)	0%
G (5000+ac.)	1/41 (2.44%)	0%

Number of smokejumpers per fire:

2	12/41 (29%)
3-4	9/41 (22%)
5-6	3/41 (7%)
7-8	12/41 (29%)
8+	5/41 (12%)

Parachuting injuries:

Injury	Category	Date	Cause
None*			

* MTDC Parachute Landing Injury Data System categories are used here. They are:
 Minor Injury: "Any injury that removes a jumper from jump status for 1 week or less, but allows the jumper to perform light duty with no lost time due to the injury."
 Serious Injury: "Any injury that exceeds the definition of a minor injury."

BLM Boise Smokejumpers Summary Fire Jump Statistics, 1988-1997

Year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Jumpers	140	236	237	122	133	147	827	282	1245	232
Fires	38	52	58	40	43	32	167	72	239	41