

During the period of 1989-2008, the Forest averaged 188 fires per year, burning an average of 9892 acres annually. During this 20-year period there was a significant change in the moisture regime of the first 10-year period from the second half. In the early 80's and into the early 90's the southwest was considered to be in a wet cycle but since then the weather has been significantly drier and predicted to stay this way for the near future. In general, the average number of fires per year did not change much from the first 10-year period but there has been a significant change in acres burned. The chart below shows the break down of size class and cause and acres burned by 10-year period. The more recent 10-year average is a better descriptor of changing conditions in the southwest in relation to climate and occurrence. Approximately 97% of these wildland fires are Size Class A and B incidents (less than 10 acres in size). The average annual acres burned are skewed by three large-scale stand replacement fires, which occurred during the drought years of 1996, 2000, 2002, and 2006.

	1979-1988	1989-1998	1999-2008
Fires			
Human Caused	595	524	308
Lightning Caused	1368	1349	1574
Total	1963	1873	1882
Size Class (acres)			
A = 0.1 - .25	1628	1482	1370
B = .26 – 9.9	299	356	427
C = 10 – 99.5	27	25	43
D = 100 – 299	7	6	17
E = 300 – 999	0	1	9
F = 1,000 – 4,999	2	1	9
G = 5,000 +	0	2	7
Acres Burned	5886	58209	139632

On average, lightning accounts for approximately 75% of the annual number of fires while a variety of human caused fires accounts for the remaining 25%. Historically, abandoned campfires comprise the largest proportion (36%) of the total human-caused fires. The majority of fires are relatively insignificant in terms of size and fire intensity with fire behavior characterized as a slow to moderate moving surface fire. Initial attack crews are successful in suppressing 99% of the fires at less than one acre. The other 1% is usually suppressed under 10 acres and characterized as running surface fires with some individual or groups of trees torching. A very small portion of fires escape initial attack and have the potential to exceed 100 acres. These fires start out as running surface fires and at some point transition from surface spread into the crowns of the trees leading to extreme fire behavior and the highest resistance to control to suppression action. Strong winds are usually the catalyst for these types of events and elevated

moderate fire danger to high and high to extreme leading to the potential for large and catastrophic fires. These infrequent stand replacement events typically burn at high fire intensity levels (FIL 4 and 5) and result in incidents on the scale of thousands of acres. The largest event on the Forest during the analysis period occurred in 1996 when the Bridger Knoll/Jump Fires burned together for 53,680 acres.