



BushFIRE Arson Bulletin

No. 58 17 November 2009

Patterns in bushfire arson

Bushfires arson, like structural arson, is a strongly patterned activity. These patterns seem to be mainly determined by the interplay between socioeconomic and environmental dynamics. Since the fundamentals of these two factors change slowly, bushfire arson tends to happen at the same time and in the same place every year.

Communities with a high propensity for arson often have a high proportion of children under 15 and lower education levels, employment rates and household income than the national average (Muller 2009). Unfortunately, communities with this demographic profile are common on the outskirts of cities where there are opportunities for bushfire arson near at hand and consequently, the bulk of bushfire arson ignitions occur in this context. Most of these fires burn five hectares or less.

Nineteen percent of bushfire arsonists convicted in NSW courts between 2001 and 2006 were Indigenous (Muller 2008). There are also a high number of bushfire arson incidents in locations such as Kempsey and western NSW towns (Bryant 2008) which suggests that some Indigenous communities may have elevated arson potentials. It is important to note, however, that fire and concepts of arson can have a different cultural context in these communities.

Deliberate fire frequencies during daylight hours typically peak between 3 pm and 6 pm and are anecdotally attributed to children, juveniles or young adults. Non-deliberate fires generally peak in the earlier 1 pm to 4 pm period. A higher proportion of deliberate fires occur between 6 pm and 6 am compared with non-deliberate fires. In many jurisdictions, night-time fires are principally a feature of Friday night – Saturday morning and Saturday night – Sunday morning, but the timing of fires is highly location dependent, apparently linked to different social and cultural patterns of human activity within individual areas (AIC 2007).

Nearly all areas of Australia experience a significant rise in deliberately lit fires on Saturday and Sunday (AIC 2008). In terms of patterns throughout the year, most areas have a relatively constant underlying arson incident rate, punctuated by a rapid rise over a two or three week interval then a gradual decline over several months (Bryant 2008). The occurrence of this pattern at different times of the year varies widely across Australia and depends largely on seasonal vegetation growth and fuel curing rates.

References

- Australian Institute of Criminology (AIC) 2008. Weekly patterns in bushfire ignition. *Bushfire arson bulletin* no. 55. Canberra: AIC. <http://www.aic.gov.au/publications/current%20series/bfab/41-60/bfab055.aspx>
- Australian Institute of Criminology (AIC) 2007. The time of day of bushfires in Australia. *Bushfire arson bulletin* no. 40. Canberra: AIC. <http://www.aic.gov.au/publications/current%20series/bfab/21-40/bfab040.aspx>
- Bryant C 2008. *Understanding bushfire: trends in deliberate vegetation fires in Australia*. Technical and background paper series no. 27. Canberra: AIC. <http://www.aic.gov.au/publications/current%20series/tbp/21-40/tbp027.aspx>
- Muller D 2009. *Using crime prevention to reduce deliberate bushfire in Australia*. Research in public policy series no. 98. <http://www.aic.gov.au/publications/current%20series/rpp/81-99/rpp98.aspx>
- Muller D 2008. Offending and reoffending patterns of arsonists and bushfire arsonists in New South Wales. *Trends & issues in crime and criminal justice* no. 348. <http://www.aic.gov.au/publications/current%20series/tandi/341-360/tandi348.aspx>

