The recent widespread drought in Australia, known as the ‘Big Dry’ or the ‘Millennium Drought’, has had severe impacts across Australia. While the Big Dry is undoubtedly a bad drought, there have been previous droughts with similar severe impacts observed in Australian hydroclimatological records (e.g. the Federation (~1895-1902) and World War II (~1937-1945) droughts). However, the impact and spatial distribution of each drought has differed and the drivers of each drought has been attributed to a combination of different large scale climate driving mechanisms such as the El Niño Southern Oscillation (ENSO), the Indian Ocean Dipole and the Southern Annular Mode. In fact, recent research has shown that individual climate drivers (e.g. ENSO), when treated as a single process, account for less than 20% of monthly rainfall variability. Therefore this presentation will focus on the relationships between Australian rainfall and various climate driving mechanisms. The novel aspect of this work is that the combined impact of several climate phenomena operating in conjunction will be explored.