

Florida Rip Current Deaths---Trends and Forecasts
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Abstract

The state of Florida has had at least 364 rip current-related deaths from 1989-2008, the most of any state in the U.S. This number of victims is more than those from hurricanes, lightning and tornadoes...combined! Using information from the publication *Storm Data* as well as from other sources rip current deaths in Florida are analyzed for trends or cycles. It is shown that the trend in Florida rip current deaths is slightly downward and in southeast Florida the downward trend is even greater. Using this same data set an examination of a possible multi-year cycle of deaths in southeast Florida is made.

Using data from the publication *Storm Data* the annual number of rip current deaths in the United States and its possessions from 1989-2008 is calculated including state-by-state estimates. Also, making assumptions about the accuracy of *Storm Data*, an estimate of the true number of annual rip current-related deaths in the United States is made.

An earlier study demonstrated that the number of rip current deaths is much greater near the time of low tide than at other tidal levels. In Florida along the Atlantic coast there are usually two low tides per day. It was found that there was a considerable difference in the number of deaths that occurred near the lower low tide as opposed to the higher low tide.

Recommendations are made to improve the accuracy of rip current death estimates and increase the forecast ability of empirical techniques.