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April 27-30, 2020
Broomfield, Colorado, USA

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Analysis of the Certified Lightning Fatalities and their Relation with the Rainy Seasons in Colombia for the Period 2008-2018

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Abstract

This work presents an updated report about the number of lightning fatalities in Colombia for the period 2008-2018 by considering the certificated deaths associated with the International Classification of Diseases 10th Revision Procedure Classification System (ICD-10-PCS) using the codes T750 and X33. This source of lightning-fatality data is provided by the Colombian National Administrative Department of Statistics (DANE) and it has been preferred over other data collection because the information is obtained from a governmental free database that can be consulted by anyone with internet access. In addition, the relationship between the time (date, hour), the location of the event and some sociodemographic information of the victim, such as the gender and the occupation, are presented. Finally, the data set is also analyzed in order to establish a relation between the geographical distribution of the fatalities (location) and the two annual rainy seasons in Colombia (from April to June and from September to November), in which the most part of the deaths by lightning has been reported for the 11-year period. These results can be used to increase the knowledge and improve the management of the lightning risk in Colombia.

Keywords— Colombia; lightning fatalities; rainy seasons; sociodemographic characteristics

Topic Areas

Applications of Lightning Data: Community events, Advanced Warnings, Lightning Safety, Protection, and Casualty Occurrence

Submission Format

Oral