



Paperback Re-issue

Lightning was present on Earth long before human life evolved and it may even have played a crucial role in the evolution of life on our planet. Each year, some 25 million cloud-to-ground lightning discharges occur in the United States alone, killing more people than tornadoes and hurricanes. Lightning is involved in 5 percent of all US residential-property-damage insurance claims, including those from tens of thousands of home fires, with total claims of over one billion dollars annually. Lightning initiates many forest fires, and over 30 percent of all electric power failures are lightning related. Each commercial aircraft is struck by lightning on average once a year. A lightning strike to an unprotected object or system can be catastrophic.

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Cover illustration:

Courtesy of J. Autery.
See description on p.142.

Lightning: Physics and Effects is the first book that covers essentially all aspects of lightning, including lightning physics, lightning protection, and the interaction of lightning with a variety of objects and systems as well as with the environment. It is written in a style that will be accessible to the technical non-expert and is addressed to anyone interested in lightning and its effects. This will include physicists, engineers working in the power industry and in the communications, computer, and aviation industries, meteorologists, atmospheric chemists, foresters, ecologists, physicians working in the area of electrical trauma, and architects. This comprehensive reference volume contains over 300 illustrations, 70 tables containing quantitative information, and a bibliography of over 6000 references.

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