

Safety and Economic Consequences of Lightning in the U.S.

Did you know?.....

- During a 5-year period from 1992 through 1996, it is estimated that 1.7 billion dollars were paid out in lightning-related claims. All claims were commercial in nature, and it was reported that lightning accounted for 8.7% of the total number of claims and 3.8% of the property dollar losses.

Source: St. Paul Insurance Company, St. Paul, MN

- In 1989 The Insurance Information Institute (III), reported that 5% of all insurance claims were lightning related, amounting to more than \$1 billion per year. Reports from 1997 and 1998 cited that lightning strikes are responsible for over \$250 million per year.

Source: Insurance Information Institute

- According to a 1998 report published by the National Oceanic and Atmospheric Administration, the FAA estimates that thunderstorms cost airlines and U.S. public approximately \$2 billion per year in operating costs and passenger delays.

Source: Project Report NOAA - 18

- According to the Ohio Insurance Institute, 18% of all lumberyard fires are originated by lightning. The report also stated that lightning is responsible for 30% of all church fires.

Source: The Ohio Insurance Institute

- Where natural events are concerned, lightning accounts for 61% of all accidents in storage and processing activities. It is reported that lightning was

the cause for 16 out of 20 accidents involving petroleum products storage tanks.

Source: Journal of Hazardous Materials, 1995.

- It is estimated that 30% of all power outages annually, are lightning -related with total costs approaching \$1 billion.

Source: Electric Power Research Institute (EPRI)

- The National Weather Service publication, *Storm Data* recorded 3,239 deaths and 9,818 injuries from lightning strikes between 1959 and 1994, citing lightning as a leading cause of weather-related deaths, second only to floods.

Source: National Weather Service

- Fire investigators determined that a five-alarm fire at Chicago's, St. Anthony of Padua Church in 1994, was caused by a lightning strike. An inspection of the church revealed the presence of a lightning protection system that was **not installed** in accordance with safety requirements of NFPA 780, Standard for the Installation of Lightning Protection Systems.

Source: NFPA Executive Summary

- Lightning fires in dwellings, duplexes and manufactured homes caused more than \$65 million a year in direct losses from 1988-1992, marking a four-year period of major losses for property owners and the insurance industry.

Source: NFPA Fire Fact Reports

- In 1996, a US federal judge upheld a judgment of fines levied by the Occupational Health & Safety Administration (OSHA) against a Pennsylvania incinerator operator for failure to provide adequate lightning protection at its facility. The fine was imposed when a lightning-induced explosion killed two workers and caused \$2 million in damages to the plant which shut down for two weeks. As a result of the OSHA order, the company added lightning protection safeguards to its U.S. facilities.

Source: Lightning Protection Institute

- At 1,454 feet, the Empire State Building remained the tallest building in the world until 1972. Designed to serve as a lightning rod for the surrounding area, the building is reportedly struck by lightning about 100 times per year. The structure is equipped with a lightning protection system, which has protected it from lightning damage, since 1931.

Source: U.S. Postal Service/PR Newswire

- The most costly weather-related event in New York City's history was caused by a lightning strike on July 10, 1977, when lightning struck two high voltage electrical transmission towers, knocking out power through out the city. The power outage left 8 million residents in the dark and lasted more than 24 hours. Damages were in excess of \$1 billion, making it the costliest weather-related event in the state's history.

Source: The Weather Channel