

Major U.S.A. Technological Disasters and Emergencies

I. Selected Shipwrecks (and related explosions)

- 1865 Sultana (Mississippi steamer blew up near Memphis, Tennessee) (1,547 deaths)
- 1898 Maine (U.S. battleship destroyed in Havana harbor by explosion) (620 deaths)
- 1904 General Slocum (excursion steamer burned in East River, New York City) (1,021 deaths)
- 1919 Titanic (British ship hit iceberg) (1,503 deaths)
- 1976 George Prince and Frosta (ferryboat and Norwegian tanker collided in Mississippi River near Luling, Louisiana) (77 deaths)
- 1981 Nimitz (U.S. Marine combat jet crashed on U.S. aircraft carrier) (14 deaths)
- 1983 Marine Electric (coal freighter sank during storm near Chincoteague, Virginia) (33 deaths)
- 1989 Exxon Valdez (hit undersea reef and released 10 million plus gallons of oil)
- 1989 USS Iowa (explosion in gun turret) (47 deaths)
- 2000 USS Cole (bombed by terrorist resulting in 1,600 sq. ft. hole) (17 deaths)
- 2001 U.S. submarine Greeneville (collided with Japanese fishing boat near Pearl Harbor, Hawaii) (9 deaths)

Sources: Adapted from Borgna Brunner. 2001. *Time Almanac 2002*. Boston: Information Please, p. 614 and p. 620; Mark S. Hoffman (ed.). 1993. *The World Almanac and Book of Facts*. New York: World Almanac, p. 571-572 and *2001 Britannica Book of the Year*. 2001. Chicago: Encyclopaedia Britannica, Inc., p. 45.

II. Selected Airplane Crashes

- 1956 TWA and United (collision over Grand Canyon Arizona) (128 deaths)

- 1960 TWA and United (collision over New York City; includes 6 persons who were on the ground) (134 deaths)
- 1978 PSA and private Cessna (collision over San Diego, California) (150 deaths)
- 1979 American (crash after take off at O'Hara International, Chicago, Illinois; includes 3 persons who were on the ground) (275 deaths)
- 1985 Delta (crashed at Dallas-Ft. Worth International, Texas) (133 deaths)
- 1989 United (crashed at Sioux City, Iowa) (111 deaths)
- 1996 TWA (crashed after take off at John F. Kennedy, New York City) (230 deaths)
- 1998 Swissair (crashed on Canadian coast after take off from John F. Kennedy, New York City) (229 deaths)
- 1999 Egypt Air (crashed near Nantucket Island, Massachusetts after departure from New York; en route to Cairo, Egypt)
- 2001 American and three United (crashed into the World Trade Center, the Pentagon, and in a field near Shanksville, Pennsylvania; terrorist attack) (3,044 deaths)

Sources: Adapted from Borgna Brunner. 2001. *Time Almanac 2002*. Boston: Information Please, p. 621-622; Mark S. Hoffman (ed.). 1993. *The World Almanac and Book of Facts*. New York: World Almanac, pp. 572-573; *1997 Britannica Book of the Year*. 1997. Chicago, Illinois: Encyclopaedia Britannica, Inc., p. 58; *1999 Britannica Book of the Year*. 1999. Chicago: Encyclopaedia Britannica, Inc., p. 58 and *Rocky Mountain News*, September 11, 2002, p. 13A.

III. Selected Railroad Wrecks

- 1876 Ashtabula, Ohio (92 deaths)
- 1910 Wellington, Washington (96 deaths)
- 1918 Nashville, Tennessee (101 deaths)
- 1944 Bagley, Utah (50 deaths)
- 1951 Woodbridge, New Jersey (84 deaths)

- 1972 Chicago, Illinois (45 deaths)
- 1991 Camden, South Carolina (7 deaths)
- 1993 Mobile, Alabama (47 deaths)
- 1996 Washington, D.C. (11 deaths)

Sources: Adapted from Borgna Brunner. 2001. *Time Almanac 2002*. Boston: Information Please, pp. 622-623; Mark S. Hoffman (ed.). 1993. *The World Almanac and Book of Facts*. New York: World Almanac, pp. 573-574 and 1997 *Britannica Book of the Year*. 1997. Chicago, Illinois: Encyclopaedia Britannica, Inc., p. 61.

IV. Structural Fires and Explosions

- 1871 Chicago, Illinois (“The Great Chicago Fire” originally attributed to Mrs. Patrick O’Leary’s cow) (250 deaths)
- 1903 Chicago, Illinois (Iroquois Theater fire; largest death toll in U.S.A. history) (602 deaths)
- 1942 Boston, Massachusetts (Cocoanut Grove Club) (491 deaths)
- 1947 Texas City, Texas (explosion at pier) (561 deaths)
- 1963 Indianapolis, Indiana (liquefied propane gas caused during “Holiday on Ice” show) (73 deaths)
- 1968 Richmond, Indiana (explosion at a sports store) (43 deaths)
- 1973 Staten Island, New York (explosion of liquefied gas tank) (40 deaths)
- 1977 Westwego, Louisiana (grain elevator explosion) (35 deaths)
- 1980 Las Vegas, Nevada (MGM Grand Hotel fire) (84 deaths)
- 1985 Hallett, Oklahoma (explosion at a fireworks factory) (21 deaths)
- 1990 New York City (fire at social club) (87 deaths)

Sources: Adapted from Borgna Brunner. 2001. *Time Almanac 2002*. Boston: Information Please, pp. 618-619; Mark S. Hoffman (ed.). 1993. *The*

World Almanac and Book of Facts. New York: World Almanac, pp. 576-577.

V. Dam Failures

1889	Johnstown, Pennsylvania (2,209 deaths)
1928	St. Francis, California (450 deaths)
1972	Black Hills, South Dakota (245 deaths)
1972	Buffalo Creek, West Virginia (125 deaths)
1977	Kelly Barnes, Georgia (39 deaths)
1977	Laurel Run, Pennsylvania (39 deaths)
1990	Shadyside, Ohio (24 deaths)

Source: Adapted from Federal Emergency Management Agency. 1997. *MultiHazard Identification and Risk Assessment*. Washington, D.C.: Mitigation Directorate, Federal Emergency Management Agency, p. 260.

VI. Hazardous Material Incidents

Between 1983 through 1990, 81 deaths and 2,182 injuries resulted from 50,999 incidents (6,375 per year on average). Highway accidents accounted for 82% (41,781) of the incidents, 98% (79) of the deaths and 72% (1,569) of the injuries.

Source: Adapted from Federal Emergency Management Agency. 1994. *Emergency Preparedness U.S.A.* Washington, D.C.: Federal Emergency Management Agency, pp. 2-17.

In 1997 a new estimate was made for annual occurrences. “Of the 6,774 HAZMAT events that occur on average each year, 5,517 are highway events, 991 are railroad events, and 266 are due to other causes.” Federal Emergency Management Agency. 1997. *MultiHazard Identification and Risk Assessment*. Washington, D.C.: Mitigation Directorate, Federal Emergency Management Agency, p. 274.

VII. Radiological Materials Incidents

1961	Idaho Falls, Idaho (experimental reactor) (3 deaths)
1975	Decatur, Alabama (technician checking for air leaks with candle caused \$100 million fire) (no deaths)

- 1979 Middletown, Pennsylvania (Three Mile Island reactor experienced loss of coolant and partial core meltdown; extensive evacuations; worst U.S.A. incident) (no deaths)

- 1979 Erwin, Tennessee (1,000 people contaminated with up to 5 times as much radiation as normal in a year) (no deaths)

- 1986 Gore, Oklahoma (cylinder of nuclear material burst due to improper heating at Kerr-McGee plant, 100 hospitalized) (1 death)

- 1986 Chernobyl, Ukraine (62 miles south of Kiev) (reactor explosion) (health consequences remain controversial. Robins concluded: “The most conservative estimate is 10,000 cancers in the Soviet Union and 1,000 in the rest of Europe, with about half that number resulting in deaths.” (p. 120). (unknown deaths)

Sources: Adapted from Mark S. Hoffman (ed.). 1993. *The World Almanac and Book of Facts*. New York: World Almanac, p. 577 and Joyce Robins. 1990. *The World's Greatest Disasters*. Secaucus, New Jersey: Chartwell Books Inc., p. 120.

Note: The Nuclear Regulatory Commission (NRC) regulates 123 commercial nuclear power plants. Although four are located in California, most are east of the Mississippi River. Federal Emergency Management Agency. 1997. *MultiHazard Identification and Risk Assessment*. Washington, D.C.: Mitigation Directorate, Federal Emergency Management Agency, p. 288.