

Aircraft Fatalities, 1908 to 1914

Fatalities increased over the years as more flyers took to the air in powered machines, often in pursuit of glory in establishing new records for altitude, endurance, distance and speed. Prior to WW I (1914) there were a total of 395 fatalities, 66 of which were in the United States. In the years prior to 1908 there were only one or two fatalities per year. In the three years preceding Montgomery's last flight in 1911 there were 97 fatalities (20 in the U.S.). In the three years after his last flight there were triple the number of fatalities: 297 total (45 in the U.S.) and the number of near-fatalities or injuries far exceeded these numbers. While this trend was partly due to the increased number of aviators attempting to fly, their machines continued to remain dangerous and unstable as higher altitudes and greater speeds were pursued. Montgomery's emphasis on stability and control, before adding a motor, if adopted, surely would have helped to reduce these grim statistics.

As late as November 6, 1910, the Sunday edition of the *New York Daily Tribune* declared: "Aeroplane Motors Are Harder to Understand Than Women," with subtitles proclaiming: "Vagaries of These Cranky Machines Which Have Caused Death, Wreck or the Loss of Prizes" and "Many Experts Believe Man Will Never Learn to Fly Safely Until He Invents Motorless Wings."

The Chicago Daily News Almanac and Year-Book's summaries of the Progress in Aeronautics in the years 1908-1914 (compiled by James Langland, M.A.) provides an illustration of how initial enthusiasm and the pursuit of records became tempered with an increasing concern for greater stability and reliability, particularly from 1911 on (emphasis added).

1908: "Great progress in the science of navigating the air was made in 1908, and it may be fairly said that flying by means of machines heavier than the atmosphere is now an accomplished fact." Fatalities: 1.

1909: "The remarkable advance made in 1908 in the science of navigating the air was continued in 1909, especially in the line of actual performances. There were no startling

improvements in the construction of aeroplanes, but much was learned by experience and many minor changes were made tending to perfect the machinery.” Fatalities: 5, 1 in the U.S.

1910: “The year 1910 was one of wonderful achievements in the conquest of the air. Records for sustained flight, speed, distance made and altitude reached were constantly being broken both by aeroplanes and dirigible balloons. Aviation meets and exhibitions increased in number and in the quality of the performances.” Fatalities: 22, 1 in the U.S.

1911: “Many wonderful achievements were placed to the credit of aviators in 1911, but these were chiefly in the line of long cross country flights or of altitude and duration records. The main thing demonstrated, however, was the fact that heavier-than-air machines are unsafe and that until greater stability has been secured they cannot be put to practical use except, perhaps, for scouting in time of war.” Fatalities: 70, 18 in the U.S.

1912: “No startling changes were made in the construction of aeroplanes in 1912, but some progress was made in the direction of reliability and speed. New endurance, distance, speed, altitude and passenger carrying records were made, chiefly in Europe.” Fatalities: 89, 20 in the U.S.

1913: “Experimenting with aeroplanes, hydroaeroplanes and dirigible balloons continued throughout 1913, but without the announcement of any radical improvements being made. The ... list of casualties shows that aviation is still one of the most perilous of vocations, not only as regards the use of the heavier-than-air machines, but of dirigibles.” Fatalities: 124, 16 in the U.S.

1914: “The use of aeroplanes and dirigible balloons for military purposes was the main feature in the aeronautical world in 1914. ... Prior to the breaking out of hostilities some new records, especially in altitude and endurance, were established ... ” Fatalities: 84, 9 in the U.S.

Among the more notable people who gave their lives in pursuing flight prior to John J. Montgomery (in order of date):

Otto Lilienthal, August 9, 1896, Berlin, Germany, in a glider of his own design, failing to reestablish lift when it stalled, from 50 feet. He had made over 2,000 flights, beginning in 1891. His last words to his brother Gustav were: “Sacrifices must be made.”

Sources: Wikipedia (http://en.wikipedia.org/wiki/Otto_Lilienthal)

and Otto Lilienthal Museum (<http://www.lilienthal-museum.de/olma/eotto.htm>).

Percy Sinclair Pilcher, September 30, 1899, Leicestershire, England, in his fourth glider, *The Hawk*, when one of the guy wires of the tail broke and the tail collapsed, from 30 feet. At the time he was planning to add a motor to his triplane (for the required lift, as suggested by Octave Chanute). His death slowed Great Britain's development of practical aircraft for a decade.

Sources: Wikipedia (http://en.wikipedia.org/wiki/Percy_Sinclair_Pilcher)

and Aviation Pioneers (<http://www.ctie.monash.edu.au/hargrave/pilcher.html>).

Daniel John Maloney, July 18, 1905, Santa Clara, CA, in John J. Montgomery's tandem-wing glider, *The Santa Clara*, when one of the dangling balloon release cables broke the aeroplane's tower that braced the two rear wings and provided control of the tail, from 2,000 feet, "settling a little faster than a parachute." "Maloney waved ... in a kind of farewell, just before he hit." According to John Montgomery: "When we reached Maloney he was unconscious and lived only thirty minutes. The only mark of any kind on him was a scratch from a wire on the side of his neck. This is remarkable for a vertical descent of over 2,000 feet. The six attending physicians were puzzled at the cause of his death." The newspapers, on the other hand, reported varying injuries: "Maloney received a fracture of the jaw, a fracture of the left arm and a hemorrhage of the brain resulted." "His head was fractured and blood was flowing from his ears and mouth." "Maloney's neck was broken and his skull was crushed. The bones of one leg were also broken and he was injured internally."

Sources: Arthur Dunning Spearman, S.J., *John J. Montgomery: Father of Basic Flying* (University of Santa Clara, 1967; 2nd ed. 1977), Chapter 13; *The San Francisco Call*, July 19, 20 & 23, 1905; *The Los Angeles Herald* and *The Sun* (NY), July 19, 1905.

Lieut. Thomas Etholen Selfridge, September 17, 1908, in Fort Meyer, VA, a member of the aeronautical board of the army, as a passenger in a Wright Flyer III or Mod A, piloted by Orville, when "a propeller blade snapped off and, hitting some other part of the intricate mechanism, caused it to overturn in the air and fall to the ground," from 75 feet. "No effort on the part of the aviator could possibly have averted the accident. Planes and rudders were absolutely incapable of righting the machine when it had turned in that manner." Orville Wright was badly injured (fracture of the left thigh and several ribs on

the right side). This was the first recorded motorized airplane fatality in history.

Sources: *The New-York Tribune*, *The Washington Times*, and *The San Francisco Call*, September 18, 1908.

Eugène Lefebvre, September 7, 1909, in Juvisy-sur-Orge, France, piloting a Wright Model A, when “the motor stopped sharply, and the abrupt cessation of the propellers caused the machine to tumble to the ground,” from 20 feet. He was the chief pilot for the French Wright Company and his death was the first in the history of French aeroplane flights.

Sources: *The San Francisco Call*, *The Washington Times*, and *The Times Dispatch* (Richmond, VA), September 9, 1909.

Hon. Capt. Charles Stewart Rolls, July 12, 1910, Bournemouth, England, in a Wright Flyer when the tailpiece snapped off at 100 feet. “The event in which Rolls was competing was for a prize for the aviator alighting nearest a given mark.” “He had risen to a good height, then shut off his motor and was gliding in a broad circle toward the mark. Without warning the tail pieces of the biplane snapped off. The machine gave a sudden lurch and the framework crumpled up in air.” He had won fame for himself and saved the pride of British aeronauts by crossing the English Channel from Dover to Calais on June 2, 1910—it had been crossed twice before by Frenchmen (*Sacre Bleu!*). “Captain Rolls had expected to come to the United States this fall to give exhibitions of flying and to compete in any meetings that might be held.” Together with Sir Frederick Henry Royce he co-founded the Rolls-Royce car manufacturing firm in 1906. He was the first Briton to be killed in flying a powered aircraft.

Sources: *The San Francisco Call* and *The New-York Tribune*, July 13, 1910.

Ralph Greenley Johnstone, November 17, 1910, in Denver, CO, in a Wright Model B, in a spiraling dive from 500 feet. “With his planes tilted at an angle of almost 90 degrees he swooped down in a narrow circle, the aeroplane seeming to turn almost in its own length. As he started the second circle the middle spar, which braces the left side of the lower plane, gave way, and the wing tips of both upper and lower planes folded up as though they had been hinged. For a second Johnstone attempted to right the plane by warping the other wing tip. Then ... the plane swerve(d) like a wounded bird and plunge(d) straight toward the earth.” Thrown from his seat, Johnstone “fought by main

strength to warp the planes so that their surfaces might catch the air and check his descent ... when only about 300 feet from the ground the machine turned completely over.” He was the holder of the world’s altitude record and the first of the Wright Flying Team to die. He once said, “It gets us all sooner or later.” His brother, St. Croix Johnstone, died flying on August 15, 1911 (see below). Roy Knabenshue, general manager of the exhibition department of the Wright Company, said that the Wrights had “warned Johnstone—in fact, forbade him attempting any stunts in the air which required that the planes of his machine be tipped at an angle of more than forty-five degrees. ... The air pressure exerted against the wings of an aeroplane is something terrific, even when the machine is flying parallel to the earth. When the machine is tilted the least bit this pressure is multiplied many times. The Wrights have long since decided that an airship in flight, tilting at more than forty-five degrees, is very dangerous.”

Sources: *The New-York Tribune* and *Los Angeles Herald*, November 18, 1910; and *The San Francisco Call*, November 18, 1910 and October 20, 1911.

John Bevins Moisant, December 31, 1910, Kenner, LA, in a 50 hp Bleriot monoplane (to which he was unaccustomed) caught in a gust of wind while attempting to land and thrown from the plane. He had recently won the \$10,000 prize in New York for circling the Statue of Liberty.

Source: *The San Francisco Call*, January 1, 1911.

Archibald (Arch) Hoxsey, December 31, 1910, in Los Angeles, CA, an aviator for the Wright brothers, in a Wright biplane, from 7,000 feet while attempting to set a new altitude record where he encountered “conflicting air currents ... whirled off by a vagrant storm that floated in from the sea,” and “descended by a series of spiral glides and was performing one of the thrilling rolling dips when his biplane suddenly capsized in midair and shot to earth.” “Charles F. Willard of the Curtiss team had predicted just a moment before Hoxsey fell that an accident was sure to overtake him in the dangerous atmosphere.” “Roy Knabenshue, manager of the Wright aviation exhibition troupe ... made the startling assertion that Arch Hoxsey ... died of heart disease while 2,000 feet in the air. ... Hubert Latham and Glenn Curtiss, both of whom studied the descent very closely, are inclined to agree with Knabenshue, or to think that Hoxsey lost consciousness while at great height on account of an attack of ‘mountain sickness.’ This

malady has put in peril other aviators. It is caused by the rapid ascent from heavy air into the rarer altitudes. Sometimes the swift descent has an equally bad effect.”

Sources: *The San Francisco Call*, January 1, 1911 and *The Washington Herald*, January 3, 1911.

Lieut. George Edward Maurice Kelly, May 10, 1911, San Antonio, TX, in a Curtiss Model D, in a second attempt at landing after his first attempt damaged the control system, from 15 feet, when he was thrown from his machine and his skull was crushed. “He is the second American soldier sacrificed to the art of aviation. He is the first aviator to be killed in this country since the death of Arch Hoxsey on the 31st of last December. He is also the first man to have been killed in a Curtiss machine.” “Lieut. Kelly is the fifteenth of army and navy aviators to be killed in aeroplane accidents. He is the second in the United States. “George F. Campbell-Wood, secretary of the Aero Club of America, said yesterday: ‘Aviators should not only be compelled to fasten themselves in their machines but should wear safety helmets. I think a great many serious accidents would be averted by this precaution. Some of the French machines are provided with straps made of elastic, which tend to lessen the shock caused by the impact of the aeroplane with the earth.’”

Sources: *The Washington Times*, May 10, 1911; *The San Francisco Call*, *The Times-Dispatch* (Richmond, VA), and *The Sun* (NY), May 11, 1911.

Daniel A. Kreamer, July 13, 1911, in Chicago, IL, Aero Club of Illinois field, in a Curtiss Biplane, crashed from 75 feet while doing “figure eights.” “Kreamer who was an amateur aviator, undertook to prove his fitness for a ‘master’s papers’ in a machine belonging to James E. Plew. The task set for him was a succession of five “figure eights” within the area of the field. ... In ‘backing’ for the turn Kreamer lost control of the machine and was apparently at a loss to know what to do. As a result the big biplane hovered almost motionless in the air for a moment and then plunged downward with its nose pointed at the earth.” Commenting on the tragedy, “Bud” Mars (see next) proclaimed, “It was another life given up trying to cope with the air and it has taught us nothing. No one ever will know what was the exact cause of the accident. Every condition was favorable, and still he fell. Now that he is gone, we must remember his family. I for one will be glad to chip in to start a fund that should be swelled to \$10,000

for his children.”

Sources: *The San Francisco Call* and *The Norfolk Weekly News-Journal*, July 14, 1911; *The New-York Tribune* and *The Salt Lake Tribune*, July 15, 1911.

James Cairn (Bud) Mars, July 14, 1911, in Erie, PA, in a Curtiss biplane, crashed from several hundred feet when his machine made a sudden dip downward and he could not regain control. He had noticed in a previous flight “that something was wrong with the atmosphere at the lower end of the field.” Though thought to be fatally injured (he suffered a concussion, internal injuries and was bruised from head to foot), he survived after many days in the hospital. He said he would not attempt another flight for at least six months and may abandon aviation. “As a first lieutenant in the aviation section of the Signal Corps in World War I, Mars trained soldiers to fly. After his discharge from the army in 1918, he built an airport in Westchester County, New York, and acted as instructor there.”

Sources: *The New-York Tribune*, July 15, 1911; *The Times-Dispatch* (Richmond, VA), July 21, 1911; and *The Early Birds of Aviation*

(<http://www.earlyaviators.com/emars.htm>).

William R. Badger, August 15, 1911, Chicago, IL, at the Chicago International Aviation Meet, in a Baldwin biplane. Badger, a daredevil, was making a “suicidal” plunge from 200 feet at an angle of more than forty-five degrees, and found his machine to be uncontrollable when its wings, due to the sudden increase in air pressure, crumpled together as he pulled out of the dive.

Sources: *The Washington Herald* and *The New-York Daily Tribune*, August 16, 1911.

St. Croix Johnstone, August 15, 1911, Chicago, IL, at the Chicago International Aviation Meet, in a Moisant monoplane, in a sensational plunge from an altitude of 1,000 feet, when his gasoline tank exploded, partially destroying one of the wings and he plummeted into lake Michigan at a “frightful” velocity, falling out of his seat 100 feet from the water and was crushed and killed in the wreck. He was a brother of Ralph Greenley Johnstone who died flying on November 17, 1910 (see above).

Sources: *The Washington Herald* and *The New-York Daily Tribune*, August 16, 1911.

Frank Miller, September 22, 1911, in Dayton, OH, in a “Curtiss-type” biplane, when, at 200 feet high, the motor suddenly stopped and exploded, the gasoline tank caught fire,

and he burned in midair. He was “Forced to fly his aeroplane against his will to please a jeering crowd of several thousand.” He stated: “I’d rather not go up this time, and I’ll be glad when I come down.” He knew “that his motor was working badly.”

Source: *The San Francisco Call*, September 23, 1911.

Eugene Burton Ely, October 19, 1911, in Macon, GA, in a Wright Flyer/Curtiss D, plunged to the ground from 50 feet when, misjudging the distance, he pulled out of a sensational dive too late. As he lay dying he said, “I lost control. I know I am going to die.” Before making his ascent he had told his assistant mechanic that he feared something would happen and to wire his wife immediately in the event of a mishap. He was the first aviator to fly to and from the deck of a cruiser (in San Francisco bay).

Sources: *The Washington Herald* and *The San Francisco Call*, October 20, 1911.

Many of the aeroplanes being flown during this time were based on the Wright’s, or variants thereof. The Wright’s emphasis was mostly on achieving motorized flight and less on automatic stability and control, in contrast to Montgomery’s primary concern. These aeroplanes required constant attention by the pilot to keep them stable and could not be flown “hands-off.” “Grover Loening [who worked closely with Orville in the Wright Company] once described flying a Wright aircraft as ‘like sitting on the top of an inverted pendulum ready to fall off on either side at any moment.’”¹

“The Wright brothers had deliberately eschewed the will-o’-the-wisp [viz: any hope or goal that leads one on but is impossible to reach] of automatic stability until they had perfected their flying machine. Then sometime after 1905 they began secretly to develop a mechanism to relieve pilots of the routine job of adjusting rudder, elevator, and ailerons—or their equivalent—for every irregularity of air movement in straightway flight. They applied for a patent on this device in February 1908. ... The secret stabilizer would not be tested in the air until after the patent had been published in 1913 and secrecy was no longer a factor.”² This stabilizer never saw general use.

The Wright Models B and C were responsible for many deaths. The Wright Model C, termed the "Speed Scout" was an early military aircraft. It was supposed to be an improvement of the Model B, designed specifically to offer the Aeronautical Division

of the US Signal Corps a long-range scouting aircraft. However, it had a short service life—from 1912 to 1914—because of a series of fatal crashes that destroyed six of the eight aircraft manufactured for the Army. The hapless casualties were³

Arthur Welsh (pilot) and **Lt. Leighton Hazlehurst**, (passenger) June 10, 1912, College Park, Maryland.

Lt. Moss Love, September 4, 1913, San Diego, California, “when his Model C turned over on its back and crashed.”

Lt. C. Perry Rich (student pilot), November 14, 1913, Manila Bay, Philippines. He “was gliding down for a landing in a Model C equipped with pontoons when it nosedived into the water, and he too was killed.”

Lt. Hugh Kelly (student pilot) and **Eric Ellington** (chief instructor), November 24, 1913, San Diego, California. Ellington “had complained ... that the Model C was tail-heavy and did not answer controls properly.”

Lt. Henry Post, February 9, 1914, San Diego, California. “He set a new altitude record ... and after reaching 12,140 feet came down at a very steep angle. ... he tried to pull out when he was 600 feet above the water, but his aircraft nosed down and smashed into the bay.”

In addition to the Model C mishaps, several people were killed in the Model B:

Lt. Lewis Rockwell (pilot) and **Cpl. Frank Scott** (passenger), September 1912, College Park, Maryland, when the plane “came in for a landing at a steep angle. Instead of straightening out, his aircraft plowed into the ground, killing both men instantly.”

Lt. Loren Call, July 8, 1913, Fort Sam Houston, Texas, “when his aircraft tilted suddenly downward and he fell to his death.”

¹ Howard, Fred. *Wilbur and Orville; A Biography of the Wright Brothers*. New York: Dover Publications, 1998. page 389.

² Ibid, pages 367, 390.

Other Sources:

- Chicago Daily News Almanac and Year-Book for 1909-1914
- Library of Congress, Chronicling America (<http://chroniclingamerica.loc.gov>)

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- The Early Birds of Aviation (<http://www.earlyaviators.com/index.htm>)
 - Aircraft Deaths–Fixed Wing Only (<http://www.earlyaviators.com/edavelam.pdf>)

³ Howard, Fred. *Ibid.*