

Early Aviation and the Movies

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Motion pictures and airplanes were born almost simultaneously, and it is natural that the excitement and drama generated by early aviation would find its way to the silver screen. Aviation films are of particular interest to pilots and aerospace medicine specialists, and much of the general public's perception of pilots, flight surgeons, and aerospace medicine originates from scenes that they witness in commercial movies. Unfortunately, the aeromedical data presented in film is often factually incorrect and flight surgeon depictions are sometimes employed as diversions or for comic relief. For example, the medical selection scenes in "Armageddon," "Space Cowboys," and "The Right Stuff" are used for comedy. The NASA flight surgeon portrayal in Apollo 13 is unfavorable and events portrayed are often incorrect and trivialize the important medical issues that affected this challenging flight. The only Hollywood film that specifically features aerospace medicine issues is "Dive Bomber" (1941). This film shows scenes related to flight surgeon training, evolved gas disorders, acceleration tolerance and counterpressure garments, fatigue (the subsequently discredited Schneider Index), accident response, and pilot medical grounding. "Dive Bomber" was based on a story and screenplay by Naval aviator Frank "Spig" Wead (1895–1947) who himself was the subject of the film "The Wings of Eagles" and was involved in the story or script development of 36 movies—most with aviation themes.

There are over 350–400 films with aviation or space themes and almost all aeromedical factors can be found scattered through scenes in these movies, including the introduction of medical certification in the military and civilian realms, the evolution of medical examinations and testing, acceleration, hypoxia, fatigue, bends, return to duty postaccident/disability, spouse notification of death or injury, alcohol abuse, accident investigation, and the pressures of command. The 1928 silent film "The Flying Fleet" showed early Navy pilot physical exams, including ground-level hypoxia testing. It also contains a poignant scene of pilot medical disqualification. "Men of the Fighting Lady" (1954) begins with an interview of a carrier-based Naval flight surgeon and his role is prominent in the film. Two outstanding film directors who were also early aviators formed the backbone of the initial aviation movies. They were William Wellman (1896–1975) and Howard Hawks (1896–1977). Both were born in 1896 and became pilots during military service in World War I. Wellman's film "Wings" (1927; **Fig. 1**) and Hawks' "The Dawn Patrol" (1930; **Fig. 2**) set the standard for aviation movies and aerial photography and led to a long history of successful aviation-related films.

William Wellman (1896–1975) directed over 80 films, including several with aviation themes. His films included "The Public Enemy," "Battleground," "The Ox-Bow Incident," and "A Star is Born." While serving as an ambulance driver in France, he joined the French Foreign Legion attached to the N87 *les Chats Noir* (Black Cats) of the French Air Corp and in 1917 became a



Fig. 1. "Wings" is a William Wellman silent movie released in 1927 (and was presumed lost until a copy was found in 1992 in France) and won the first Academy Award for best picture. The film was shot at Kelly Field in San Antonio and featured the entire 2nd Infantry Division and nearly every pursuit plane available in the U.S. Army Air Corps at the time. One of the Army pilots was killed during the filming.

decorated fighter pilot flying the Nieuport 17 and later the Nieuport 24.^{2,4} He served with the Lafayette Flying Corp, shot down several planes including three that were confirmed, and was awarded the *Crois de Guerre* with four palms by the French. He was eventually shot down by enemy ground fire and sustained injuries that affected him for the remainder of his life. Many of his films centered around these combat experiences in France, including "Wings," "Legion of the Condemned" (1928), "Young Eagles" (1930), and "Lafayette Escadrille" (1958). "Wings" was awarded the first Academy Award for best picture.

As often occurs in early aviation movies and actual training during this era, the first death in "Wings" (a young Gary Cooper) occurs unexpectedly in a training accident. The last death in "Wings" occurs when a pilot inadvertently kills his best friend. "Central Airport" (1934) showed a pilot's heroic return to flight and accomplishing a rescue at sea after sustaining multiple disabilities from aircraft accidents, including the loss of an eye. "Men with Wings" (1938) attempted to cover the first 35 yr of powered

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Fig. 2. “The Dawn Patrol” (1930) was directed by Howard Hawks and starred Richard Barthelmess and Douglas Fairbanks, Jr. Film producer Howard Hughes did everything that he could to sabotage the production of the film as it was in competition with his soon to be released “Hell’s Angels.” The film used rebuilt French Nieuport 28s for the British squadron.

flight starting at Kitty Hawk and was the first aviation epic to be filmed in full color.³ “Gallant Journey” (1946) depicts the work of John Montgomery in developing controlled flight in heavier-than-air aircraft. It also has scenes depicting his vertigo due to Meniere’s disease, pilot grounding due to a medical condition, grief associated with fatal aircraft accidents, and eventually moving on after an accident. “Thunder Birds” (1942) displayed the problem of motion sickness in an aviation student. “Island in the Sky” starred John Wayne and demonstrated concepts of search and rescue, cold weather extremes, and the will to survive. His “The High and the Mighty” was one of the first “disaster” movies and showed return to flight postaccident, fear of flying, and a novel approach to resolving cockpit resource management issues. “The High and the Mighty” was based on a story by airline and military aviator Ernest Gann (1910–1991), who also penned “Fate is the Hunter” and served as technical advisor on “Island in the Sky.”

Howard Hawks (1896–1977) was an extremely talented director who was known for a long career creating movies in multiple genres such as comedy, action, noir, gangster, science fiction, and westerns. His 46 movies included “Sergeant York,” “Scarface,” “To Have and Have Not,” “The Big Sleep,” “Red River,” “Bringing Up Baby,” “The Thing from Another World,” “Gentlemen Prefer Blondes,” “Rio Bravo,” and “Eldorado.” He was also an instructor pilot during WWI and used his knowledge to direct and participate in flying activities in multiple aviation themed movies such as “Air Circus” (1928), “The Dawn Patrol” (1930), “Ceiling Zero” (1935), “Only Angels Have Wings” (1939), and “Air Force” (1943). Much like real wartime flying activity and the early days of

aviation, accidents and deaths during training, combat, and due to aircraft failures were common. Hawks’ movies reflected this reality. At the beginning of WWI Hawks had five pilot friends—his brother Ken and his roommate, Hawks roommate, and two others who enlisted together in the Air Corp. Two were killed while training in France and two of the others collided attacking a balloon in Italy. Hawks’ brother Ken survived the war but was later killed performing in an aerial scene while directing his second movie. Many stunt pilots have been fatally injured while making movies.³ While the loss of five of his friends and family did not frighten him about flying, Hawks’ aviation movies always had a fatalistic attitude toward death. “Dawn Patrol” (later remade by others in 1938 using his aerial footage) is similar to the later movie “12 O’Clock High” and demonstrates the devastating effect of the loss of fellow aviators in combat, the pressures and stress of command, and the pervasive use of alcohol.⁶ “Dawn Patrol” starts and ends with a fatal accident and Hawks states, “You get the audience to realize that they’re dealing with life and death. It’s that simple.”¹ “Ceiling Zero” shows cocky pilot attitude, the risks of inclement weather, and shows the development of wing boots for flying into icing. Early in the movie, a pilot fakes medical illness so that he can date a woman, only to have his replacement killed in inclement weather while making the flight.⁵ “Only Angels Have Wings” demonstrates flying risks associated with remote locations and high-altitude mountain flying, but has an outstanding scene regarding a pilot cheating on the medical eye examination. While depicting flying at high altitude in the Andes Mountains, it also shows the early use of supplemental oxygen. Three of Hawks’ movies involve pilot dedication to the service of others where they depart on a mission knowing there was little chance for return.

The History and Archives Committee of the Aerospace Medical Association (AsMA) has found that historical movies provide an entertaining method to encourage discussion and educate aerospace medical providers about the medical considerations of flight, the flight environment, flight surgeon/pilot relationships, and many other important aeromedical factors. Each year at the annual AsMA scientific meeting, the Committee offers historical films and often provides panels on the aeromedical aspects of historical commercial films.

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