The speed of progress that marks aviation history astounds me. In 1903, the Wright Brothers controlled a heavier than air, powered flight for a matter of moments. By the First World War, the technology was capable of not only sustained air flight, but of enough maneuverability to make the airplane into an adaptable weapon of war. We have often discussed in class how technologies change our view of the world (railroads bringing us closer, assembly line making us part of the manufacturing machine). With aviation, the speed of the development, the speed of the vehicle, and the conquering of the third dimension of space inspired artists, scientists, children, and adults in every nation the technology touched. Some nations viewed aviation as a source of national pride and considered the technology to be owned by the state. Peter Fritzsche explores this dynamic in A Nation of Fliers: German Aviation and the popular Imagination. In essence, he tells a biography of the German People from 1908 to 1939 through the nation's relationship to aviation. Tom Crouch is more focused on the personal relationship with aviation and his biography The Bishop's Boys: A Life of Wilbur and Orville Wright is about the man and the machine. Therefore, Crouch chooses to tell his narrative primarily through personal correspondences while Fritzsche draws on popular press and media. I will focus on Fritzsche's work by discussing the three primary types of German aviation (Zeppelin, Fighter Plane, Glider), how the nation related to each technology, and how he uses a variety of sources to explore these relationships.

Zeppelin

German aviation, and Fritzsche's book, begins in 1908 with the flight of the first zeppelin, and consequently the first German motorized aircraft. Initially, the zeppelin was seen as the people's craft and a demonstration of national superiority. When an accident at Echterdingen challenged the future of the zeppelin program, individuals, businesses, and civic organizations donated to a fund for Graf Zeppelin to build the next generation craft (15-17). In

addition to monetary support, Fritzsche argues that poems and songs from Germans and a proliferation in zeppelin souvenirs reflected the enthusiasm of the populace. Not only did the zeppelin become a symbol for most social movements and classes in pre-WWI and Weimar Germany, Graf Zeppelin was also elevated to a level of national representation. "Graf Zeppelin represented what many Germans took to be their national virtues: skill, purposefulness, and idealism" (35).

In World War I, the zeppelin took on new imagery as a weapon of the state. This role was foreshadowed in children's songs leading up to the first aerial bombings of the War. The military hesitated using zeppelins offensively, but "growing pressure from the public, which for six years had carried on a romance with the sleek, powerful zeppelins, was critical in forcing the hand of the high command, which authorized the first zeppelin raids in early 1915" (44). The zeppelin influenced the populace and in turn the populace influenced the state. The illusion of an invincible, superior zeppelin reflected the illusion of an invincible, superior Germany. While the zeppelin faced physical limitations, Germany faced European defeat. Therefore, as Germany strove to repair its image post-WWI, it once again drew on the image of the zeppelin to inspire national confidence. Germany pioneered transatlantic voyages to once again prove technical proficiency and superiority to the world. However, the tragedy of the Hindenburg exemplified the frailty of the craft, and analogously the German state.

The sinusoidal journey of the Zeppelin and of Graf Zeppelin in German popular culture is effectively portrayed in this German schoolgirl adaptation of London Bridges:

Zeppelin to, Zeppelin fro,

Zeppelin has no airship more.

Zeppelin up, Zeppelin down,

Zeppelin has his airship now.

Zepp-Zapp-Zeppelin

The airship's down again (35)

Fighter Plane

Fritzsche states that as the War progressed, the airshipman on the zeppelin became more a symbol of the German spirit than the craft itself (58). The evolving image of the pilot captures the German romance with flight. Initially the pilot was little more than a chauffer, transferring officers from one location to another or flying a gunman around to shoot at enemy targets or planes. However, when Anthony Fokker, a Dutch engineer, built a monoplane with a synchronized rapid-fire gun the image and reality of the war ace came into being. Fritzshe includes advertisement, portraits from newspapers, and graphics of ace funerals to demonstrate the individual importance of each ace. "Much of the power of the image of the ace comes from its contrast to that of the infantryman in the trenches. Fliers fought an individual rather than a collective and anonymous war. Their victories were immediately recognizable" (82). The zeppelin relied on the technology and its inventor for imagery while the user was the focus of the fighter plane mystique.

Fokker's integrated monoplane altered the relationship between the plane and the pilot. The technology became an enhancement of the human. Rabinbach's *The Human Motor* showed how the modern era viewed humans as analogous to machines and possibly governed by similar principles. Humans eventually become integrated into the machine through the assembly line. However Fritzsche further extends this metaphor of integration by portraying the plane as an extension of the pilot. Crouch echoes this relationship when discussing the intimacy between the pilot and control system in even the early Wright Fliers.

The image of the ace hardened, became superhuman and sterile as WWI raged on. "Over the course of the war, airmen emerged as representatives of a more tough-minded, popular patriotism that was technologically able and ruthlessly chauvinistic" (100). Germany's defeat, and the resulting Treaty of Versailles, banished German pilots from the skies, freezing the image of the ace.

Gliders

In spite of Versailles, Germans were not going to abandon aviation and its resultant national pride. Constructing and flying gliders quickly became a national hobby post-WWI. As technological progress was made, gliding was recast as a patriotic, nationalistic act. Fritzsche uses gliding to represent the German people's transition from civilian idealism and self-reliance to military fraternity. This shift in mentality between the world wars is most starkly portrayed when contrasting two pictures of gliding included by Fritzsche. The first (129) shows a relaxed outdoor environment with informally dressed Germans sprawled around glider wings, casually working together. The second picture shows uniformed Nazis rigidly lined up along the wings of a glider (194). Of course, "the point is not that gliding camps in the 1920s nurtured Nazis but that the unpretentious and cooperative spirit and self-reliant nationalism that gliding cherished eventually fostered an unmistakable empathy for the National Socialist message" (130).

The accessibility of gliding and the later violation of Versailles increased the notion that German was an "airminded" people. At the start of World War II, air warfare was discussed with nonchalance in the German home and schoolroom, reflecting the complete ubiquity of aviation in all facets of society. Again, Fritzsche demonstrates this airmindedness by drawing on popular press, government propaganda, poems, and folksongs. In drawing on a wide range of sources, the reader draws the conclusion that aviation really was ubiquitous. Even if signs of aviation were every where, one wonders if there were any dissenting German sentiments. Certainly in the United States there was at least a noise complaint concerning low flying planes. Did Frizsche not come across similar statements or did he choose not to include them. If the evidence doesn't exist is it because Germans were truly universally enthusiastic about aviation or is it a function of information flow in a tyrannical state?

The Bishop's Boys and A Nation of Fliers both tell a story by listening to what the people are saying about themselves. Crouch had an obvious place to start, with personal correspondence,

when writing the Wrights' journey. However, he brought in newspaper articles and court testimonies to add multiple perspectives to the tale. Fritzsche did not necessarily have an obvious fundamental source or an obvious point of view. Thus, his decision to draw heavily on popular press puts the narrative focus on the people, not on the rulers or the scientists/engineers.

Germany's early aviation history pivoted around three crafts: the zeppelin, the fighter plane, and the glider. They coexisted and improved alongside each other, but each related to the German people and state in different ways. The zeppelin symbolically served as the people's craft. The fighter plane emphasized the (German) man behind the machine. And the glider physically allowed the populace to interact with aviation technology before becoming a vehicle for the rising socialist state. Germany's interaction with each technological artifact was documented in popular culture and captured and retold by Fritzsche as a history of the time and a biography of its people.