Spearfish has been an important air transit hub in South Dakota since the earliest days of commercial aviation. The following film (Formats: [DLL] / [Watch SDPB]) likely shows one of the first heavier-than-air craft ever to land in the state. The film dates back to 1913. The aircraft shown could be a [Curtiss D-III Headless Pusher]. It could also be a home-built aircraft modeled after the Pusher.

The airfield now known as Black Hills Airport - Clyde Ice Field has a rich history in the annals of South Dakota aviation. It was on routes connecting most other airports in South Dakota with others in surrounding states. Air mail volume in and out of the Spearfish airport at one time exceeded that of Rapid City.

Spearfish was also a home base for legendary aviator Clyde Ice, a pioneer in the history of aviation.

This film, (Formats: [DLL] / [Watch SDPB]) most likely shot at an airshow in 1938, shows a number of the era's aircraft in flight and on the ground.

Several things stand out in the film... first, the aircraft. Here are some of the aircraft shown in the film and interesting facts about them. ([Click])
Bernoulli’s Principle (Demonstrations)

Daniel Bernoulli was a Swiss mathematician during the eighteenth century. Bernoulli studied a physical phenomenon/relationship between the velocity of a fluid and pressure. His observations and applied mathematical explanations became known as Bernoulli’s Principle.

Bernoulli’s Principle describes a phenomenon in which the pressure (pressure is the amount of force applied over an area) of a fluid (gas or liquid) changes with a change in the velocity of the fluid. Bernoulli observed that an increase in the velocity of the fluid resulted in a decrease in the pressure of the fluid. Also, a decrease in the velocity of a fluid resulted in an increase in the pressure.

The lab write-up below includes many demonstrations that highlight Bernoulli’s Principle. The lab write-up starts with flight/lift and continues with additional related demonstrations. Each section includes a small explanation and related video lesson. A detailed explanation of Bernoulli’s Principle, with related web resources (flight, airfoils, forces, etc.), is also included.

- Demonstrations
- Related Video Lessons (Scroll Down)