



CASCADE POLICY INSTITUTE

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## Summary

The Wright Brothers, who invented the airplane 100 years ago, did so in competition with a government-financed inventor, Samuel Pierpont Langley. They not only humiliated Langley, whose plane failed spectacularly, they opened the skies to manned flight without a penny of government incentives or expertise.

**Word count: 693**

*“Wilbur and Orville Wright ‘would finance their dream with the nickels and dimes they could scrape together from the profits of their private business.’”*

## The Wright lesson

*by Lawrence W. Reed*

This year, Americans will celebrate the 100th anniversary of the first manned airplane flight, a feat engineered at Kitty Hawk, N.C., by two brothers named Wright.

Though most Americans know something of that fateful December day in 1903, fewer are aware of the rivalry between the Wrights and another inventor/entrepreneur—one Samuel Pierpont Langley. A hundred summers ago, that rivalry was at fever pitch and no one could have guessed that two bicycle mechanics from Dayton, Ohio with high school educations would best the better-financed and aristocratic Langley.

Langley was already way ahead of the Wrights. A renowned astrophysicist, he was secretary of the respected Smithsonian Institution in Washington, D.C. As early as 1896, he had built and flown an unmanned “aerodrome”—a tandem-wing aircraft that utilized a lightweight steam engine for propulsion.

Both Langley and the Wrights had Smithsonian connections, but with a huge and perhaps decisive difference. For Langley, the Smithsonian was the conduit for a \$50,000 federal grant, matched by the Institution, to finance his experiments (equivalent to about a million dollars in today’s purchasing power). In 1899, Wilbur Wright wrote a letter to the Smithsonian asking for nothing more than a reading list on flight. He and Orville would finance their dream with the nickels and dimes they could scrape together from the profits of their private business.

During the summer and fall of 1903, Langley worked feverishly at his home base of Washington, D.C. Because he felt it safest to fly over water, he spent half his funds building a houseboat with a catapult that would launch his newest craft with the inventor of its engine, Charles Manly, aboard for the first time. Incredibly, a catapult launch meant that the plane would have to go from a dead stop to a flying speed of 60 mph in just 70 feet.

Back in Dayton, Wilbur and Orville Wright worked on propeller design, a lightweight engine, and wings that mimicked the way buzzards flew. What they put together solved the problem of controlling flight, which Langley’s craft would never have achieved even if it had taken to the air.

On Oct. 7, 1903, Langley's plane, with Manly aboard, was put to the test. But the stress of the launch badly damaged the front wing and the plane tumbled over and sank in 16 feet of water. A reporter wrote that it flew "like a handful of mortar." A second launch set for Dec. 8 proved even more disastrous. The rear wing and tail completely collapsed and the plane dove right into the icy Potomac River. This time, poor Manly nearly drowned.

Critics went wild. One congressman said, "You tell Langley for me that the only thing he ever made fly was government money." The federal government's War Department concluded that "we are still far from the ultimate goal, and it would seem as if years of constant work and study by experts, together with the expenditure of thousands of dollars, would still be necessary before we can hope to produce an apparatus of practical utility along these lines."

But just nine days after Langley's failure, the Wrights took turns flying their carefully designed plane for as long as 59 seconds at Kitty Hawk. The craft cost them about \$1,000. It cost American taxpayers nothing. Within a year, they were flying five miles at a time; within two years, they were flying distances of 20 to 25 miles.

In November 1904, the Wrights offered to sell planes to the War Department. With no subsidy, they wanted to sell planes for military reconnaissance and communication. But they received the same form letter refusal that the War Department routinely sent to "flying machine" cranks.

Does this remarkable story suggest that government is more farsighted than the private sector and that subsidies are needed to spur new inventions? Or that government quickly sees the error of its ways and corrects its mistakes? Or that the pursuit of profit just adds another layer of cost and makes new inventions more expensive than necessary?

If you think any of these "lessons" apply, then the textbooks you've been reading belong right where Samuel Pierpont Langley's plane landed.

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