



# PROFILE: Edwin Link

## AVIATOR, INVENTOR

**N**o one could fly in weather like that: The sky was thick with dark clouds, and a winter's rain beat down.

A group of U.S. Army Air Corps officials, waiting for a demonstration of a flight trainer, turned to leave. They figured the pilot had given up and gone back. In 1934, pilots needed to see where they were going. Nasty weather made that impossible.

### SETTING HIS MIND

Ed was born in 1904, seven months after the Wright brothers took their historic first flight. As a boy, he spent hours experimenting, figuring out how gadgets worked, and exploring.

The dreamer didn't fit in at his school, where they wanted kids to memorize fact after fact. Facts were already known! Ed wanted to explore the unknown. He especially wanted to fly.

But that was the last thing

his father wanted. Ed and his older brother were supposed to get the finest education available and learn all about business, so they could

take over the family's piano and organ factory.

Ed refused. He was happy to go to a vocational school, where he could learn engineering skills and create things with his own hands. But he refused to stay at the stuffy schools his dad preferred.

When he was a teen, his mother took him to California to enroll him in the Los Angeles Polytechnic Institute, a vocational training school.

Later, he went to work at his dad's factory, but not in the business office. He built organs and tuned pianos. Soon he was designing new organs for theaters. He got a patent for a device that cleaned player piano rolls. But he still wanted to fly.

### IDEAS THAT SOARED

When he was 16, he spent all his earnings on one flying lesson. The pilot put Ed in the second seat of his little biplane and roared into the sky. The plane did loops and spins and zoomed low over buildings. Ed was scared to death but fascinated. After they landed, Ed realized he had never even touched the controls. Some lesson!

While he worked on organs, he kept thinking about that first lesson. "Would-be pilots for the most part simply climbed into airplanes and tried to learn by the seat of their pants," Ed's biographer wrote. Some student pilots didn't survive their in-air training.

Ed managed to learn to fly, but he knew there had to be a better way. After working all day at the organ factory, he'd go into its basement and work late into the night designing and building a flight trainer. He made it bank and turn using the things he knew best: parts from pipe organs. After 18 months, he had created the first realistic flight simulator.

It was impressive. The famous pilot Casey Jones bought six. But hardly anyone else did. Ed started taking it to county fairs and charging a quarter per ride.

Casey called up some officials he knew in the Air Corps. He convinced them to come to the airstrip on that rainy winter's day in 1934 to see a flight demonstration. The rest was up to Ed. Ed soared into the rain and made history.

“ED TRAINED TO FLY IN THE FIRST-EVER FLIGHT SIMULATOR, ONE HE HAD MADE WITH HIS OWN HANDS.”

But then they heard it: the hum of an aircraft engine. A plane emerged from the clouds and came in for a smooth landing. The pilot, Ed Link, was waving.

Ed had just proved that, if properly trained, pilots could "fly blind," using airplane instruments to guide their flight when they couldn't see the ground. They could fly in bad weather, like he had done for 200 miles (322 km).

Ed had trained to fly by using instruments in a flight simulator—the first-ever, and one he had made with his own hands with parts from a pipe organ.

It was a success. The Air Corps put in an order for Link Trainers. It was the break Ed had been waiting for.