

## THE WAY OF THE EAGLE

A HomeschoolRadioShows Listening Guide  
Written by Rose Clark

*The program "The Way of the Eagle" is hosted by Paul Shannon and was originally heard on Adventures in Research, a syndicated radio program broadcast in the early 1950s. The runtime of this radio show is 14:26 minutes.*

### Summary

Myths and literature throughout history have many examples of man dreaming of flight. Some instances are the winged genie of Egypt, Sinbad and the flying roc, the Arabian flying carpet and Icarus' wings melting in the hot sun. A prophecy of Krishna in 2000 BC spoke of a chariot with wings driven through the sky that was capable of dropping missiles on its enemies. Proverbs 30:18-19 says there are four things unknown, the first being the way of the eagle in the sky.

Leonardo Da Vinci drew designs for spiral screw flying machine similar and a parachute. Even though his diagrams never left the page, his dreams were the beginning of great discoveries. In the 17th century, Gasper Schott observed that eggshells were extremely light and dew rose from the ground in the early morning. He theorized a combination of these two things would achieve flight.



The Royal Society of England was created to pool man's knowledge and one of the items of interest was flight. They believed that there were four ways a man could hope to fly, with the aid of angels or birds, wearing wings or a flying chariot. The only thing holding man back from flight was the lack of knowledge. The scientists of the Royal Society began studying birds to gain this knowledge of flight. One theory discussed was negative magnetism. A 20 pound goose has one pound of feathers to carry it into the sky. Scientists speculated that negative magnetism is created when birds shiver their feathers before taking off. This repels the bird from the ground and it only has to steer once aloft. The key to a bird's flight is locked in the mystery of this magnetic force. Although these ideas were incorrect, the

thinkers were paving the way for further research.

One 18th century inventor designed a flying machine with hollow wings similar to a wind mill. In 1742, Marquis de Bacqueville created wings that attached to his arms and legs. A large catapult shot him into the air, but he failed his goal to fly across the river Seine.

Sir George Cayley proposed to the Society that there be a shared knowledge of aeronautics. He said the key to the problem is to make surface support a given weight by the application of power to the resistance of the air. In other words, use an engine to create forward motion and let the motion develop lift via the wings. He theorized an internal combustible engine 55 years before it appeared and he called it an explosion machine. Cayley also researched initial velocity, wing loading, construction and other factors in efficient flight. In 1809, Cayley constructed a two wing glider and tested manned flights himself. These scientific advances and more led to the famous flight of the Wright Brothers.

## Links

### Proverbs 30:18-19

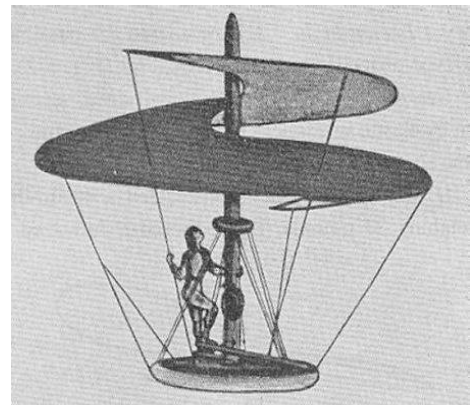
<http://www.biblegateway.com/passage/?search=Proverbs%2030:18-19&version=NIV>

### Failed attempt at flight Marquis de Bacqueville

<http://science.howstuffworks.com/transport/flight/classic/ten-bungled-flight-attempt7.htm>

### Early discoveries in aeronautics

<http://www.grc.nasa.gov/WWW/k-12/WindTunnel/history.html>



## Discussion Questions

What is your favorite story of mythology or literature about flying?

Early discoveries typically start with an observation or hypothesis (educated guess). Can you come up with a hypothesis? Can you test it?

If you had some really great ideas would you want to pool your research or would you want to keep it a secret?