

Spin Testing

Full-Scale to Model-Scale

What is it?

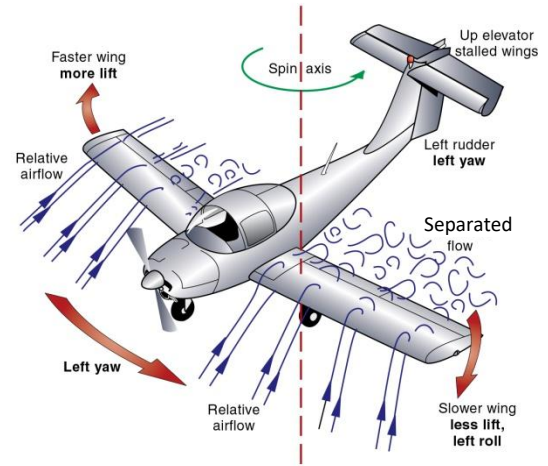
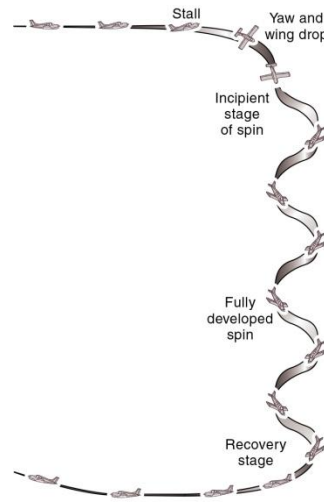
- A spin is a **stable** rotation of the aircraft when the wing is stalled.
 - As long as the wing remains stalled and the control surfaces do not move, the spin will continue.

Why test for it?

- Any aircraft that enters a spin should be able to get out of it.
 - If not, the controls need to be limited so it is impossible to get into a spin.

How are spins tested?

- Flight test
 - A pitch and yaw stable aircraft can test for spin characteristics in flight test.
- Drop Test
 - Throw a scale model from a great height...
- Wind Tunnel Test
 - Throw a scale model into a vertical wind tunnel...



- [Flight Test Spin Testing \(1:46\)](#)
- [Drop Test \(Glide Test... not spin\)](#)
- [Spin Wind Tunnel Test \(:30\)](#)
- [Full-Scale Impacts](#)
- [More Impacts](#)
- [Intentional Fully Controlled Spin of an F-22 \(:41\)](#)
- [Further Reading – Modeling Flight - NASA](#)