

ADVERSE YAW

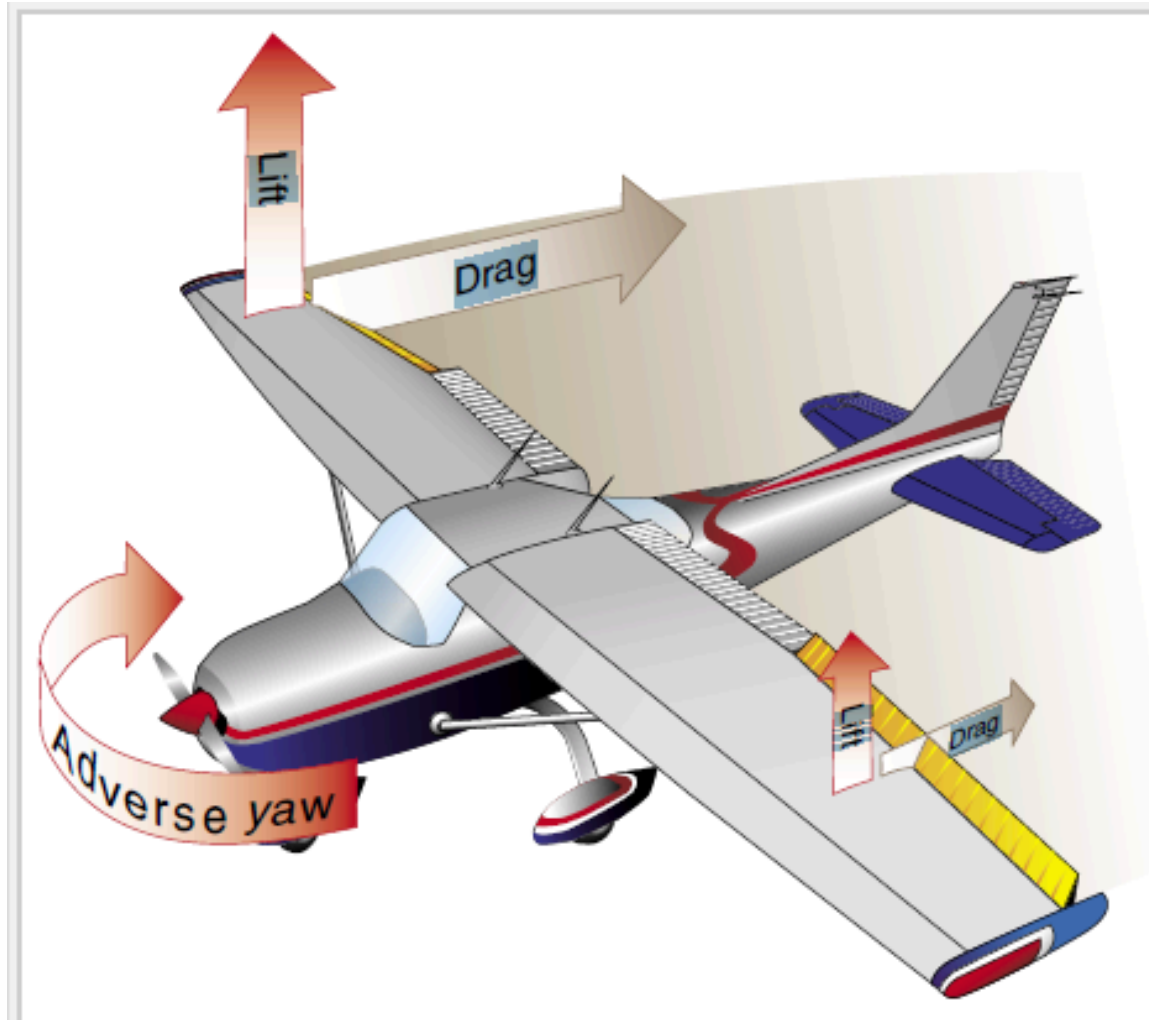


Figure 5-5. Adverse yaw is caused by higher drag on the outside wing, which is producing more lift.

ADVERSE YAW

- The tendency of an airplane to yaw beyond the interest of the pilot is called adverse yaw.
- Adverse yaw is more prominent in low speeds and Rudder is used to counteract the adverse yaw effect.
- The reasons for adverse yaw;
 - Aileron drag
 - Gyroscopic precession
 - Slipstream
 - Torque
 - Asymmetric thrust.

ADVERSE YAW

- As the downward deflected aileron produces more lift, the drag increases on that wing. This added drag causes the wing to slow down and forces the aircraft to yaw toward that wing.
- For example if right aileron is deflected downward, it increases lift on the right wing. Increasing lift also increases drag. This slows down the right wing whereas the left wing maintains its velocity and moves forward. This slightest difference in velocity of the left and right wings forces the aircraft to yaw to the right. This phenomenon is called adverse yaw.