



Transition to Tailwheel Airplanes

Obtaining your Tailwheel Endorsement is one of the most rewarding pilot achievements!

Operating a tailwheel aircraft requires keen situational awareness from engine start up to engine shutdown. Too often, pilots flying tricycle gear airplanes consistently fail to use correct aileron and elevator inputs during taxi, takeoff, climb out, landing and landing roll out.



Tailwheel instruction will help you become a better pilot by learning:

- Importance of smooth power application
- Correct use of right rudder on rotation and climb out
- Proper crosswind controls during taxi, takeoff and landing

Why not plan your Flight Review or Proficiency Training to include a Tailwheel Endorsement?

You may also qualify for FAA WINGS Credits. Call a local Tailwheel Qualified CFI.

The following information comes from the Airplane Flying Handbook - FAA-H-8083-3B

TAILWHEEL AIRPLANES

Tailwheel airplanes are often referred to as conventional gear airplanes. Due to their design and structure, tailwheel airplanes exhibit operational and handling characteristics that are different from those of tricycle gear airplanes. Tailwheel airplanes are not necessarily more difficult to takeoff, land, and/or taxi than tricycle gear airplanes; in fact under certain conditions, they may even handle with less difficulty. This chapter will focus on the operational differences that occur during ground operations, takeoffs, and landings.

LANDING GEAR

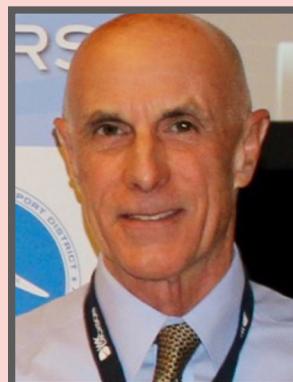
The main landing gear forms the principal support of the airplane on the ground. The tailwheel also supports the airplane, but steering and directional control are its primary functions. With the tailwheel-type airplane, the two main struts are attached to the airplane slightly ahead of the airplane's center of gravity (CG). The rudder pedals are the primary directional controls while taxiing. Steering with the pedals may be accomplished through the forces of airflow or propeller slipstream acting on the rudder surface, or through a mechanical linkage to the steerable tailwheel. Initially, the pilot should taxi with the heels of the feet resting on the cockpit floor and the balls of the feet on the bottom of the rudder pedals. The feet should be slid up onto the brake pedals only when it is necessary to depress the brakes. This permits the simultaneous application of rudder and brake whenever needed. Some models of

tailwheel airplanes are equipped with heel brakes rather than toe brakes. In either configuration the brakes are used primarily to stop the airplane at a desired point, to slow the airplane, or as an aid in making a sharp controlled turn. Whenever used, they must be applied smoothly, evenly, and cautiously at all times.

TAXIING

When beginning to taxi, the brakes should be tested immediately for proper operation. This is done by first applying power to start the airplane moving slowly forward, then retarding the throttle and simultaneously applying pressure smoothly to both brakes. If braking action is unsatisfactory, the engine should be shut down immediately.

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Safety Update

provided by:

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To turn the airplane on the ground, the pilot should apply rudder in the desired direction of turn and use whatever power or brake that is necessary to control the taxi speed. The rudder should be held in the direction of the turn until just short of the point where the turn is to be stopped, then the rudder pressure released or slight opposite pressure applied as needed. While taxiing, the pilot will have to anticipate the movements of the airplane and adjust rudder pressure accordingly. Since the airplane will continue to turn slightly even as the rudder pressure is being released, the stopping of the turn must be anticipated and the rudder pedals neutralized before the desired heading is reached. In some cases, it may be necessary to apply opposite rudder to stop the turn, depending on the taxi speed.

The presence of moderate to strong headwinds and/or a strong propeller slipstream makes the use of the elevator necessary to maintain control of the pitch attitude while taxiing. This becomes apparent when considering the lifting action that may be created on the horizontal tail surfaces by either of those two factors. The elevator control should be held in the aft position (stick or yoke back) to hold the tail down. When taxiing in a quartering headwind, the wing on the upwind side will usually tend to be lifted by the wind unless the aileron control is held in that direction (upwind aileron UP). Moving the aileron into the UP position reduces the effect of wind striking that wing, thus reducing the lifting action. This control movement will also cause the opposite aileron to be placed in the DOWN position, thus creating drag and possibly some lift on the downwind wing, further reducing the tendency of the upwind wing to rise.

When taxiing with a quartering tailwind, the elevator should be held in the full DOWN position (stick or yoke full forward), and the upwind aileron down. Since the wind is striking the airplane from behind, these control positions reduce the tendency of the wind to get under the tail and the wing possibly causing the airplane to nose over. The application of these crosswind taxi corrections also helps to minimize the weathervaning tendency and ultimately results in increased controllability.

SC Safety Seminar Update



The SCAA Safety Committee is committed to raising awareness of FAA safety initiatives by connecting FAAS Team Representatives with pilots and AMTs eager to learn more about reducing GA accidents. By promoting seminars and meetings across the state, SCAA actively encourages members to remain proficient in pilot and maintenance training.

Following is a list of recent programs and their locations.

- Sept. 6** – Mid-air Collision Case Study & Cordless Tools Safety Considerations – *Woodruff*
- Aug. 31** – Loss of Control – The Greatest Challenge in GA – *Spartanburg*
- Aug. 26** – Topic of the Month: Weather Information – *Travelers Rest*
- Aug. 24** – Loss of Control – *West Columbia*
- Aug. 23** – Pre-Ignition/Detonation – *Charleston*
- Aug. 18** – Topic of the Month: Weather Information – *Moncks Corner*
- Aug. 1** – ADS-B Information Meeting – *Hilton Head Island*
- July 31** – July Topic of the Month: Stabilized Approaches and Go-Arounds – *Myrtle Beach*
- July 28** – July Topic of the Month: Stabilized Approaches and Go-Arounds – *Spartanburg*
- July 27** – July Topic of the Month: Stabilized Approaches and Go-Arounds – *Charleston*
- July 27** – July Topic of the Month: Stabilized Approaches and Go-Arounds – *Hilton Head Island*
- June 26** – Pre-Ignition/Detonation: How to Recognize and Prevent It – *North Myrtle Beach*
- June 19** – Part 135 Illegal Charter Conference and Town Hall – *North Charleston*
- June 15** – June Topic of the Month: Aircraft Certification Reform – *Greenville*
- June 15** – Preflight Weather Self Brief – *Greenville*

Visit faasafety.gov for the most up-to-date information on safety seminars, the WINGS Pilot Proficiency Program, and AMT program.