

Tailwheel Training Course Syllabus

Block 1: Introduction to tail wheel basics and airplane familiarization.

Minimum of 2.0 hrs ground instruction and 1 hrs of flight instruction.

General Information:

- Tailwheel basics; CG, Stability, limitations, “attitude flying,” basic differences in landing technique. Review manual and checklists.
- Left turning tendency; “torque” sources and their control. (Cross-coordination)
- Factors that determine tailwheel aircraft behavior, types of tailwheels, and more.

Aircraft Familiarization: J-3 Cub

- Preflight inspection and cockpit/control familiarity, fabric plane precautions on ground!
- Power plant and performance information/limitations.
- Introduction to heel brakes and seated landing attitude.

Taxiing:

- Engine starting and slow straight taxi. Introduction to wind correction in taxi.
- Cautious use of brakes.
- Left and right turns.
- Left and right pivots; explanation of “free castering” tailwheel.
- Pivot into parking position.
- Moderately quicker taxis with/without weaving, swerve recovery.

Familiarization with Aircraft Flight Characteristics:

- Pre-flight checks and demonstration of normal take-off (instructor at the controls).
- Climb out with transition to straight and level (student at the controls).
- Adverse yaw and aileron/rudder coordination demonstration (instructor at the controls).
- Aileron/rudder coordination exercises (student at the controls).
- Medium bank turns (student at the controls).
- Steep bank turns (student at the controls).
- Slow flight and stalls (student at the controls).
- Climbs and descents both straight and turning (student at the controls).
- Ground reference maneuvers (student at the controls).
- Demonstration of normal landing (instructor at the controls).

Block 2: Take-offs and 3-point landings

2.0 hrs of flight instruction.

Preflight and Taxiing: (refer to Block 1)

Flight Maneuvers:

- Normal take-off in benign wind conditions.
- Traffic pattern and approaches – airspeed and alignment control.
- Normal 3-point landings in benign wind conditions (on grass initially, if possible).
- Bounce – cause and recovery, go around
- Slips to landing.
- Soft/short field take-offs.
- Soft/Short field landings.
- Emergency procedures.

Block 3: Light crosswind techniques.

2.0 hrs of flight instruction.

Taxiing: (refer to Block 1)

Flight Maneuvers:

- Crosswind taxi and take-offs (6 to 8 knot crosswind component).
- Traffic pattern and approaches – airspeed and alignment control.
- Crosswind 3-Point landings (6 to 8 knot crosswind component).
- Bounce – cause and recovery.
- Slips to landing.
- Emergency procedures, malfunctions.

Block 4: Wheel landings.

1.5 hrs of flight instruction.

Taxiing: (refer to Block 1)

Flight Maneuvers:

- Normal take-off in benign wind conditions.
- Traffic pattern and approaches – airspeed and alignment control.
- Normal wheel landings in benign wind conditions (on grass initially, if possible).
- Bounce – cause and recovery.
- Slips to landing.
- Emergency procedures.

Block 5: Taxiing in windy conditions and moderate crosswind techniques.

1.5 hrs of flight instruction.

Taxiing in Windy Conditions: (15+ knots)

- Flight control positioning.
- Turns into the wind.
- Turns away from the wind.
- Crosswind taxi.

Flight Maneuvers:

- Crosswind take-offs (10+ knot crosswind component).
- Traffic pattern and approaches – airspeed and alignment control.
- Crosswind 3-Point landings (10+ knot crosswind component).
- Crosswind wheel landings (10+ knot crosswind component).
- Bounce – cause and recovery.
- Slips to landing.
- Emergency procedures, go-arounds.