

RV TRANSITION TRAINING SYLLABUS

The goal of Van's Transition Training Program is to provide competent, current, pilots the experience they need to fly an RV safely.

Transition instructors will demonstrate and teach the differences between the RV and other typical light aircraft. Transition Instructors will evaluate the trainee's energy management skills, the smoothness of their control operation, the level of discipline practiced and their understanding that RV aircraft offer performance greater than that of training and low performance touring aircraft.

At the successful completion of the Transition Training course, the transition student should be able to perform the following basic flying maneuvers and procedures to the minimum standard required of a Private Pilot checkride.

Here is a list of typical skills and knowledge that the student will be expected to demonstrate, with notes on the differences between the RV and other common light aircraft.

Aircraft Preflight.

Generally typical of a preflight for any single engine, fixed-gear aircraft. Special attention to checking tire condition and pressure when close fitting wheel fairings hide the majority of the tire from easy view.

Ground Operations:

- a. Engine start. Typical of any lightplane.
- b. Taxi Operations. Some tail wheel model RVs have limited forward visibility at taxi attitude, requiring planning ahead and s-turning. Tricycle gear RVs use free-castering nose wheels and depend primarily on rudder movement and slight differential braking for ground steering. Training will emphasize proper techniques for brake steering.

Takeoff and Climb.

- a. Normal takeoff. Emphasis on the rapid acceleration and the need for high right rudder pressure for counteracting the high P-factor.
- b. Crosswind takeoff. General principles apply. However, emphasis should be placed on possible over controlling because of light stick forces and quick control response.
- c. Short/soft field takeoffs.

Four Fundamentals of Flight.

- a. Climb. Emphasis on high P-factor which requires more right rudder correction than for typical low power trainers and touring aircraft. Also, stress the limited over-the-nose visibility because of steep climb angles attainable during full power climbs.
- b. Descents. Emphasis on high descent rates at low speeds, related to the short wings.
- c. Level Flight. Emphasis on nose attitude which corresponds to level flight.
- d. Constant Altitude turns. Accurate altitude control is a challenge because high speed, high power, and light controls contribute to excessive altitude excursions.

Flight at critically low airspeeds.

- a. Slow flight at minimum controllable airspeed. Typical procedure of any lightplane. Emphasis on ability to hold airspeed within 5 mph above stall buffet, and that the aerodynamic stall warning is light and subtle on RVs.
- b. Turns, climbs and descents at minimum controllable airspeed. Similar to above with emphasis on precise speed control combined with maintaining the other parameters as well.
- c. Power-off stalls. Emphasis on stall recognition despite light aerodynamic warning characteristic of RVs. Demonstrate stall recovery with minimal control movement and attitude change.
- d. Power-on stalls. Trainee needs to become familiar with higher than normal pitch attitudes and reduced forward visibility.
- e. Accelerated stalls.

Emergency operations.

At the instructor's sadistic pleasure.

Approaches and landings:

- a. Normal Landings. Ideal landing approach speeds are a slightly higher multiple of stall speed than the traditional 1.3 x V_{so} . Use 1.35 or 1.4. The RV's spring steel landing gear is less tolerant of bounces and un-arrested impacts than typical light trainers.
- b. Crosswind landings. Typical control procedure of most lightplanes except that slips with flaps are OK in an RV.
- c. Go-around procedures. Emphasis that RVs will climb well even with full flaps, but that heavy P-factor correction is necessary for coordinated climb.
- d. Short and Soft Field landings. Emphasis on the limited ground effect of the short RV wings.
- e. Wheel landings. The sensitive rebound characteristics of the RV landing gears demand precise touchdown control. Also, prop/ground clearance should be reviewed.

Ground School

Review Test Flight procedures for new Amateur-Built RV aircraft. Stress the handling and performance differences between the RV used for the transition training, and the specific RV which the trainee is anticipating flying. Differences will be the result of variation in configuration including but not limited to: Engine HP, prop type, empty weight, and Center of Gravity location.