

Task: Fly from Boeing Field (Seattle) to Renton Field.

What you will learn/practice on this flight:

- Take-off from a specified runway and heading
- Navigate to a near-by airport
- Find an approach course to a runway
- Approach to landing
- Landing on a specified runway

Note: make all turns *standard rate*. Remember to spend MOST of your time looking outside the aircraft rather than focusing on the instruments.

What you need to already know:

- Location of Renton relative to Boeing Field. Note terrain and landmarks!
- Basic flight controls and their actions (yoke, rudder pedals, throttle, flaps)
- Basic flight instruments and their meaning (attitude indicator, heading indicator, altimeter, airspeed indicator, tachometer)
- Use of “hat switch” to look out side windows of airplane
- Performance data (rotation speed, climb speed, approach speed)

Set up of flight environment:

- Select a Cessna 172 from airplane menu
- Select KBFI (Boeing Field) from location menu.
- Select runway 13R
- Select conditions that are favorable (e.g. day and no clouds/rain/wind)

Flight procedure:

- Turn on lights (Beacon, Strobes, Navs, Landing)
- Brakes off, full throttle
- Use rudder pedals to stay on runway center line. Note heading
- Rotate at suggested airspeed
- Climb at suggested airspeed maintaining runway heading
- Climb to 600' and turn left to a heading of 060
- Continue climb to 1200'. Level off.
- Reduce power to 2100 RPM
- Proceed to the South end of Mercer Island
- “Peek” out the right window and fly given heading until nearly lined up with RNT
- Turn right to a heading of 160
- Fly towards RNT, aligning with runway using shallow turns
- When VASI turns one white & one red, reduce power to 1700 RPM and add 10° of flaps.
- Adjust power as needed and trim to maintain airspeed of 85 KIAS and a descent rate of 500 FPM. The VASI should stay on white/red
- Keep airplane aligned with runway using both ailerons (for roll) and rudder (for alignment)
- Just before shoreline move flaps to 20°. Airspeed can be allowed to drop to 75 KIAS
- Just before runway move flaps to 30°. Airspeed can be allowed to drop to 65 KIAS
- Just above runway pull back on yoke to stop decent (flying level now) and close throttle
- As speed drops and plane descends very close to runway pull back on yoke to flair. Stay aligned with runway using rudder pedals.
- After main gear touch down, let nose gear settle to runway.
- Celebrate!

Note: if, at any time, the approach is not going well (runway not aligned, too high or low) give full power, begin climb, retract flaps a notch, and “go around” to try it again. Continue retracting flaps one notch at a time until fully retracted.

Prepared by Richard T. Edgerton, Ph.D. Teacher, flight instructor, and Civil Air Patrol member.