

## **Task: Fly from Boeing Field (Seattle) to Bremerton Airport.**

### **What you will learn/practice on this flight:**

- Take-off from a specified runway and heading
- Navigate outside your local airport environment
- Locate an airport and enter traffic pattern
- Fly an approach to landing

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 Bremerton relative to Boeing Field. Note terrain and landmarks!
- The airport layout at both BFI and RNT. Note runway directions, touchdown zones, etc.
- 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 (it should be 130°)
- Rotate at suggested airspeed
- Climb at suggested airspeed maintaining runway heading
- Climb to 500' and turn right to a heading of 220°, level the wings a moment
- Turn right to a heading of 310°
- Continue climb to 800' (do not exceed!)
- When abeam the tower, turn left to a heading of 240° and climb to 1000'
- Proceed to the shoreline and over the ferry dock, climb to 2500' (fly 80 KIAS)
- Reduce engine to cruise power (2300 RPM)
- Continue your course over North Vashon Island and the shoreline, look for Port Orchard

### **Pattern entry and approach to land**

- Turn right toward the middle of PWT (you should be entering at about 45° to the runway)
- Descend to 1500' before you reach PWT
- When about a mile away from PWT turn right to a heading of 010°
- When abeam the touch-down zone, reduce power to 1700 RPM and add 10° of flaps. Fly at 85 KIAS and a descent rate of 500 FPM until the TDZ is 45° behind you.
- Turn left to a heading of 280°, flaps to 20°. Adjust power and pitch as needed to remain stabilized at 75 KIAS and a descent rate of 500 FPM (altitude about 1100')
- Turn left to a heading of 190°, flaps to 30°. Airspeed should now be about 65 KIAS, descent rate of 500 FPM, and altitude 900'.
- Adjust power and pitch as needed to keep VASI on white/red. Keep airplane aligned with runway using both ailerons (for roll) and rudder (for alignment)
- Continue descent to the runway TDZ, aligned with the center
- 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.