## **Use of Controls**

## **Lesson Objective**

The Instructor will explain the use of the controls in the cockpit and their effect on the control surfaces. In addition, any time there is an exchange of controls, the student and instructor must use the FAA-approved method of "Positive Exchange of Controls."

# **Regulatory Requirement**

Private Pilot Test Candidate: PTS, Page 8, "Positive Exchange of Controls"

#### Content

- Positive Exchange of Controls
- Ailerons, elevator and rudder
- Spoilers (aka dive brakes)
- Towhook release
- Wheel brakes
- Trim-tab
- Empennage
- Different types of flaps

### **Completion Standards**

When complete, the student will

- use the "Positive Exchange of Controls" procedure whenever command of the aircraft changes
- understand and explain the functions of all above items
- describe the movement of the stick and how the control surfaces react to the stick movement.
- describe the use of the rudder
- describe the use of the spoilers
- describe the means of locking the spoilers (aka dive brakes)

#### **Homework for Pre-Solo**

- "Glider Flight Training Manual" by Thomas Knauff pages 7-30, 52, 146-153
  - Memory Items: Written Test #1 pages 29-30

#### **Homework Solo to Private**

- Glider Flying Handbook (2013), Chapter 2; pages 2-1 through 2-10
- FAA Pilots Handbook of Aeronautical Knowledge, Chapter 5
- PowerPoint 02D(a) Principles of Flight

### **Further Reading**

CFIG Lesson Plan Notes

Next Lesson: 1d -- Cockpit Familiarization

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Previous Lesson: <u>1b -- Aeromedical Factors Discussion</u>
Return to <u>Training Syllabus</u>