Cockpit controls must be designed so that they operate in accordance with the following movement and actuation:

(a) Aerodynamic controls:

1. **Motion and effect**

   (1) **Primary controls:**
   - Aileron ...... Right (clockwise) for right wing down.
   - Elevator ..... Rearward for nose up.
   - Rudder ...... Right pedal forward for nose right.

2. **Secondary controls:**
   - Flaps (or auxiliary lift devices).
     - Forward or up for flaps up or auxiliary device stowed; rearward or down for flaps down or auxiliary device deployed.
   - Trim tabs (or equivalent).
     - Switch motion or mechanical rotation of control to produce similar rotation of the airplane about an axis parallel to the axis control. Axis of roll trim control may be displaced to accommodate comfortable actuation by the pilot. For single-engine airplanes, direction of pilot’s hand movement must be in the same sense as airplane response for rudder trim if only a portion of a rotational element is accessible.

(b) Powerplant and auxiliary controls:

1. **Powerplant controls:**
   - Power (thrust) lever.
   - Propellers ..
   - Mixture ..... Forward or upward for rich.
   - Fuel .......... Forward for open.
   - Carburetor, air heat or alternate air.
   - Supercharger.
   - Turbosuperchargers.
   - Rotary controls.

2. **Auxiliary controls:**
   - Fuel tank selector.
   - Landing gear.
   - Speed brakes.

Motion and effect

Forward to increase forward thrust and rearward to increase rearward thrust.

Forward to increase rpm.

Forward for open.

Forward or upward for cold.

Forward or upward for low blower.

Forward, upward, or clockwise to increase pressure.

Clockwise from off to full on.


§ 23.781 Cockpit control knob shape.

(a) Flap and landing gear control knobs must conform to the general shapes (but not necessarily the exact sizes or specific proportions) in the following figure: