

To retract the flaps, place the flap switch in the UP position. The switch will remain in the UP position without manual assistance due to an over-center design of the switch. Full flap retraction in flight requires approximately 7 seconds. More gradual flap retraction can be accomplished by intermittent operation of the flap switch to the UP position. After full retraction, the switch is normally returned to the center off position.

## CABIN HEATING, VENTILATING AND DEFROSTING SYSTEM.

For cabin ventilation, pull the CABIN AIR knob out. To raise the air temperature, pull the CABIN HT knob out approximately 1/4" to 1/2" for a small amount of cabin heat. Additional heat is available by pulling the knob out farther; maximum heat is available with the CABIN HT knob pulled out and the CABIN AIR knob pushed full in. When no heat is desired in the cabin, the CABIN HT knob is pushed full in.

Front cabin heat and ventilating air is supplied by outlet holes spaced across a cabin manifold just forward of the pilot's and copilot's feet. Rear cabin heat and air is supplied by two ducts from the manifold, one extending down each side of the cabin to an outlet at the front door post at floor level. Windshield defrost air is also supplied by a duct leading from the cabin manifold.

Separate adjustable ventilators supply additional air; one near each upper corner of the windshield supplies air for the pilot and copilot, and two optional ventilators in the rear cabin ceiling supply air to the rear seat passengers.

## SHOULDER HARNESES.

Shoulder harnesses are provided as standard equipment for the pilot and front seat passenger, and as optional equipment for the rear seat passengers.

Each front seat harness is attached to a rear door post just above window line and is stowed above the cabin door. When stowed, the har-

ness is held in place by two retaining clips, one above the door and one on the front of the forward door post. When stowing the harness, place behind both retaining clips and secure the loose end behind the retaining clip above the door. The optional rear seat shoulder harnesses are attached just below the lower corners of the rear window. Each rear seat harness is stowed behind a retaining clip located at the bottom edge of the aft side window.

To use the front and rear seat shoulder harnesses, fasten and adjust the seat belt first. Remove the harness from the stowed position, and lengthen as required by pulling on the end of the harness and the narrow release strap. Snap the harness metal stud firmly into the retaining slot adjacent to the seat belt buckle. Then adjust to length by pulling down the free end of the harness. A properly adjusted harness will permit occupant to lean forward enough to sit completely erect but is tight enough to prevent excessive forward movement and contact with objects during sudden deceleration. Also, the pilot will want the freedom to reach all controls easily.

Releasing and removing the shoulder harness is accomplished by pulling upward on the narrow release strap and removing the harness stud from the slot in the seat belt buckle. In an emergency, the shoulder harness may be removed by releasing the seat belt first and pulling the harness over the head by pulling up on the release strap.

## STARTING ENGINE.

During engine starting, open the throttle approximately 1/8 inch. In warm temperatures, one or two strokes of the primer should be sufficient. In cold weather, up to six strokes of the primer may be necessary. If the engine is warm, no priming will be required. In extremely cold temperatures, it may be necessary to continue priming while cranking the engine.

Weak intermittent firing followed by puffs of black smoke from the exhaust stack indicates overpriming or flooding. Excess fuel can be cleared from the combustion chambers by the following procedure: Set the mixture control full lean and the throttle full open; then crank the engine through several revolutions with the starter. Repeat the starting procedure without any additional priming.

If the engine is underprimed (most likely in cold weather with a cold