

**CHAPTER 11
FLIGHT CONTROLS**

SECTION I. CONTROL SURFACES

(Not Applicable)

SECTION II. FLIGHT CONTROL COMPONENTS

11-1. FLIGHT CONTROL SYSTEM.

CAUTION

Use of hydraulic ground test equipment, with any flight control tube disconnected, may result in damage to swashplate, scissors and sleeve assemblies.

11-2. Description— Flight Control System. The flight control system consists of the collective pitch control system, cyclic control system (pitch and roll), elevator control system and tail rotor (directional) control system. The flight control systems are mechanical linkages, actuated by conventional controls, and are used to control flight attitude and direction.

NOTE

Before using table 11-1, ensure all normal operational checks have been performed.

The flight control systems are a straight through system with hydraulic boost. A synchronized elevator is linked into the fore and aft control system at the swashplate. Electrically operated force trims, connected to cyclic and tail rotor controls, induce artificial feel and stabilize control stick and tail rotor control pedals.

NOTE

Isolate potential problem areas by disconnecting the pilots stick or pedals and the hydraulic actuators from the interconnecting linkage prior to troubleshooting.

11-3. Troubleshooting - Flight Control System. Perform troubleshooting of the flight control system in accordance with Table 11-1.

NOTE

When installing adjustable tubes insure that tubes and bearings are centered and jam nut is tightened prior to advancing to next step of the procedure.

Table 11-1. Troubleshooting Flight Control System

CONDITION

TEST OR INSPECTION

CORRECTIVE ACTION

a. Cyclic System

1. Cyclic stick rough or binding.

STEP 1. Check for dirt or foreign material at base of stick.

Remove boot and clean as required (paragraphs 11-59 and 11-61).