AD/MU-2/42 Autopilot/Electric Trim Switch Standardisation 13/89

Applicability: All model MU 2 equipped with any manual electric trim system and/or any autopilot other than Bendix.

Requirement:

1. Modify the control yoke in the affected model airplanes as follows:

   a. For MU 2B-35 model aircraft equipped with a King KFC 300 automatic flight control system (AFCS) and a Sperry manual/electric pitch trim system, in accordance with Bendix/King Certification Bulletin No. CB10, KPN 006-0712-00.

   b. For MU 2B-36 model aircraft equipped with a Sperry SPZ-200 AFCS and a MAI manual/electric pitch trim system, in accordance with MHI Kit - Sperry SPZ-200AP Disengagement Drawing, 035A-985006.

2. Configuration check.

   Visually verify that:

   a. The autopilot disconnect and trim disconnect/interrupt functions are combined on one button mounted on the outboard control wheel grip, and is so oriented that it is easily activated by the pilot/copilot.

   b. The autopilot disconnect and trim disconnect/interrupt button is properly and legibly labelled to indicate functions.

   c. The button is red in colour.

   d. There are no other red buttons nearby that could be mistaken for the autopilot disconnect.

   e. The autopilot circuit breaker is properly labelled.

3. Pitch Trim Disconnect/Interrupt Functional Check.

   With the manual electric pitch trim system armed, press the trim button to cause the manual pitch trim wheel to rotate. Verify that when each of the following operations is performed, the manual pitch trim wheel stops moving:

   a. disconnect/interrupt switch is fully depressed;

   b. The master electric power switch is positioned to “OFF”;

   c. The radio master switch is positioned to “OFF” (if installed and so configured); (not applicable to MU 2B aircraft equipped with Sperry SPZ-500 autopilots); or

   d. The electric trim circuit breaker is pulled. (On some MU 2B aircraft without an electric trim circuit breaker, the autopilot circuit breaker/switch is used to disconnect the system in lieu of the electric trim circuit breaker.)

4. Autopilot Disconnect Functional Check.

   With the autopilot system engaged, verify:

   a. That the autopilot system can be overpowered by pushing or pulling on the control yoke; and

   b. That, while overpowering the autopilot, the manual pitch trim wheel stops moving and the autopilot disconnects when each of the following operations is performed:

      i. The disconnect/interrupt switch is depressed;

      ii. The master electric power switch is positioned to “OFF”;

      iii. The autopilot master switch or the radio master switch or the engage/disengage switch on the autopilot controller (as appropriate), is positioned to “OFF” (On some MU 2B aircraft not equipped with an autopilot master switch beside the controller, the radio master switch must be used to disconnect the system in lieu of the autopilot master switch.);

      iv. The autopilot circuit breaker is pulled; or

      v. When the “GA” go-around switch on the left power lever is depressed on MU 2B aircraft equipped with Sperry SPZ 500 autopilot.

Note 1: It is very important that the manual pitch trim wheel stops moving after each of the operations of paras 3 or 4b is accomplished.

Note 2: FAA AD 88-21-01 refers.

Compliance: Prior to 31 March 1990.

Background: This AD resulted from a request by the National Transportation Safety Board (US) who while investigating a number of fatal MU 2B accidents, concluded that pilots were becoming confused in the operation of the interrupt/disconnect switches for the electric pitch trim and autopilot systems.