

SUPPLEMENT 5

**ALTIMATIC IIC INSTALLATION
(Includes Roll, Pitch and Pitch Trim)**

SECTION 1 - GENERAL

This supplement supplies information necessary for the efficient operation of the airplane when the optional AltiMatic IIC is installed. The information contained within this supplement is to be used in conjunction with the complete handbook.

This supplement has been "FAA Approved" as a permanent part of this handbook and must remain in this handbook at all times when the optional AltiMatic IIC is installed.

SECTION 2 - LIMITATIONS

- (a) The maximum speed for autopilot operation is 226 KIAS. (Autopilot V_{mo})
- (b) As the autopilot may mask high control forces necessary to counter an asymmetric ("split") flap condition, actuate the flaps only while the airplane is under manual control - not while the autopilot is engaged. Autopilot operation not authorized with greater than takeoff flaps selected (15° extension).
- (c) Minimum speed for coupled approach operations is 95 KIAS.
- (d) Autopilot "OFF" for takeoff and landing.
- (e) Placard "Conduct Trim Check Prior to Flight (See POH)" to be installed in clear view of pilot.
- (f) During autopilot operation, the pilot must be in his seat with the safety belt fastened.

SECTION 3 - EMERGENCY PROCEDURES

This aircraft is equipped with a Master Disconnect/Interrupt Switch on the pilot's control wheel. When the switch button is depressed it will disconnect the autopilot. When depressed it will interrupt all Electric Elevator Trim Operations. Trim operation will be restored when the switch is released. If an autopilot or trim emergency is encountered, do not attempt to determine which system is at fault. Immediately depress and hold the Master Disconnect/Interrupt button. Turn off Autopilot and Trim Master Switch and retrim aircraft, then release the interrupt switch.

NOTE

During examination of this supplement, the pilot is advised to locate and identify the Autopilot controls, the Trim Master Switch and the Circuit Breakers for both systems.

- (a) In the event of an Autopilot malfunction the Autopilot can be:
 - (1) Overpowered at either control wheel.

CAUTION

Do not overpower Autopilot pitch axis for periods longer than 3 seconds because the Autotrim System will operate in a direction to oppose the pilot and will, thereby, cause an increase in the pitch overpower forces.

- (2) Disconnected by depressing the Master Disc/Inter Switch.
 - (3) Disconnected by depressing the Trim Switch "A/P OFF" bar.
 - (4) Disconnected by pushing the Roll rocker switch "OFF."
- (b) In the event of a Trim malfunction:
 - (1) Depress and hold the Master Trim Interrupt Switch.
 - (2) Trim Master Switch - OFF. Retrim aircraft as necessary using manual trim system.
 - (3) Release Master Trim Interrupt Switch - be alert for possible trim action.
 - (4) Trim Circuit Breaker - Pull. Do not operate trim until problem is corrected.
- (c) If a trim runaway occurs with the Autopilot operating, the above procedures will disconnect the Autopilot which will immediately result in higher control wheel forces. Be prepared to manually retrim, as necessary, to eliminate undesirable forces.
- (d) Altitude Loss During Malfunction:
 - (1) An Autopilot malfunction during climb or cruise with a 3 second delay in recovery initiation could result in as much as 55° of bank and a 360 foot altitude loss.
 - (2) Altitude loss - high altitude descent - 3 second delay in recovery could result in a 50° bank and a 490 foot altitude loss. (Descent at 226 KIAS)
 - (3) An Autopilot malfunction during an approach with a 1 second delay in recovery initiation could result in as much as 18° of bank and a 60 foot altitude loss. Maximum altitude loss measured in approach configuration gear down and operating either coupled or uncoupled, single or multi-engine.
- (e) Single Engine Operations:
 - (1) Engine failure during an Autopilot approach operation: Disengage Autopilot conduct remainder of approach manually.
 - (2) Engine failure during Go-Around: Disengage Autopilot, retrim aircraft, perform normal aircraft engine out procedures then re-engage Autopilot.
 - (3) Engine failure during normal climb, cruise, descent: Retrim aircraft, perform normal aircraft engine out procedures.
 - (4) Maintain aircraft yaw trim throughout all single engine operations.