

MOONEY AIRCRAFT CORPORATION  
P.O. Box 72  
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FAA APPROVED  
AIRPLANE FLIGHT MANUAL SUPPLEMENT  
FOR  
EDO-AIRE MITCHELL CENTURY 41/  
FLIGHT DIRECTOR AUTOPILOT, MODEL AK801/FD  
WHEN INSTALLED IN  
MOONEY MODEL M20J

REG. NO. \_\_\_\_\_

SER. NO. \_\_\_\_\_

SECTION 1

GENERAL

This supplement must be attached to the FAA Approved Airplane Flight Manual when Edo-Aire Mitchell Century 41 Autopilot Model AK801 or Century 41 Flight Director Autopilot Model AK801FD is installed in accordance with Mooney dwg. 830130. The information contained herein supplements the information of the basic Airplane Flight Manual; for limitations, procedures and performance information not contained in this supplement, consult the basic Airplane Flight Manual.

SECTION 2

OPERATING LIMITATIONS

1. Autopilot OFF during take-off and landing.
2. Maximum airspeed for autopilot operation is 176 KT IAS. (203 MPH) (Autopilot Vmo).
3. Required Placard, stating "Conduct trim check prior to first flight of day (See POH)" to be installed in clear view of pilot.
4. Category I operations only.
5. Minimum approach speed for autopilot operation is 74 KIAS. (85 MPH).

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DATE: July 16, 1980

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LOG OF REVISIONS

Revision Number	Revised Pages	Description of Revision	FAA Approved*	Date
A	5	Added Warning		
	22	Revised & Added Data		
	23	Revised Data	<i>C.L. Stoner</i>	10/13/82

The revised portions of affected pages are indicated by vertical black lines in the margin.

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## SECTION 3

### EMERGENCY OPERATING PROCEDURES

#### 3-1 AUTOPILOT

In the event of an autopilot malfunction, or anytime the autopilot is not performing as commanded, do not attempt to identify the problem system. Regain control of the aircraft by overpowering and immediately disconnecting the autopilot. If the malfunction was in the autotrim system there may be residual control wheel force after the system is OFF. Be prepared for any residual trim force and retrim, as necessary, using the aircraft's primary trim control.

CAUTION: Do not overpower autopilot in pitch for more than approximately 3 seconds as the autotrim system will cause an increase in pitch overpower forces.

1. Autopilot may be disconnected by:
  - a. Depressing "AP OFF" bar on pilot's trim switch.
  - b. Depressing the AP ON-OFF switch on the programmer OFF.
2. Autotrim may be disconnected by:
  - a. Either action in 1. above, or
  - b. Pushing the trim master/circuit breaker switch - OFF.

After failed system has been identified, leave system circuit breaker open and do not operate until the system failure has been identified and corrected.

3. Altitude Loss During Malfunction:
  - a. An autopilot malfunction during climb, cruise or descent with a 3 second delay in

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recovery initiation could result in as much as 40° of bank and 400' altitude loss. Maximum altitude loss was recorded at 176 KIAS during descent.

- b. An autopilot malfunction during an approach with a 1 second delay in recovery initiation could result in as much as 18° bank and 100' altitude loss. Maximum altitude loss measured in approach configuration, gear down, and operating either coupled or uncoupled.

### 3-2 COMPASS SYSTEM

1. Emergency Operation With Optional NSD 360A (HSI) Slaved and/or Non- Slaved:

#### NSD 360A

- a. Appearance of HDG Flag:
  1. Check air supply gauge (vac or pressure) for adequate air supply (4 in. Hg. min.).
  2. Check compass circuit breaker.
  3. Observe display for proper operation.
- b. To disable heading card - pull circuit breaker and use magnetic compass for directional data.

NOTE: If heading card is not operational, autopilot should not be used.
- c. With card disabled VOR/Localizer and Glide Slope displays are still functional; use card set to rotate card to aircraft heading for correct picture.
- d. Slaving Failure - (i.e. failure to self correct for gyro drift):
  1. Check gyro slaving switch is set to No.

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### 3-2 COMPASS SYSTEM (CONT.)

1 position (if equipped with Slave No. 1 - No. 2 switch) or "Slaved" position when equipped with Slaved and Free Gyro Mode Switch.

2. Check for HDG Flag.
3. Check compass circuit breaker.
4. Reset heading card while observing slaving meter.

NOTE: Dead slaving meter needle or a needle displaced fully one direction indicates a slaving system failure.

5. Select slaving amplifier No. 2, if equipped.
6. Reset heading card while checking slaving meter. If proper slaving indication is not obtained, switch to free gyro mode and periodically set card as an unslaved gyro.

NOTE: In the localizer mode, the "TO-FROM" arrows may remain out of view, depending upon the design of the NAV converter used in the installation.

## SECTION 4

### NORMAL OPERATING PROCEDURES

#### 4-1 SYSTEM DESCRIPTION

The Century 41 Autopilot is a light weight electronic autopilot system utilizing vertical and directional gyro signals and D.C. electric servos to provide three axis sensing and two surface control. The system includes lateral and vertical radio coupling, command and automatic elevator trim; and navigation, trim and autopilot failure monitor and warning systems.

The Century 41 is available as an integrated Flight Director and Autopilot system by the use of one of the three optional Attitude Director Indicators (A.D.I.) offered.

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#### 4-1 SYSTEM DESCRIPTION (CONT.)

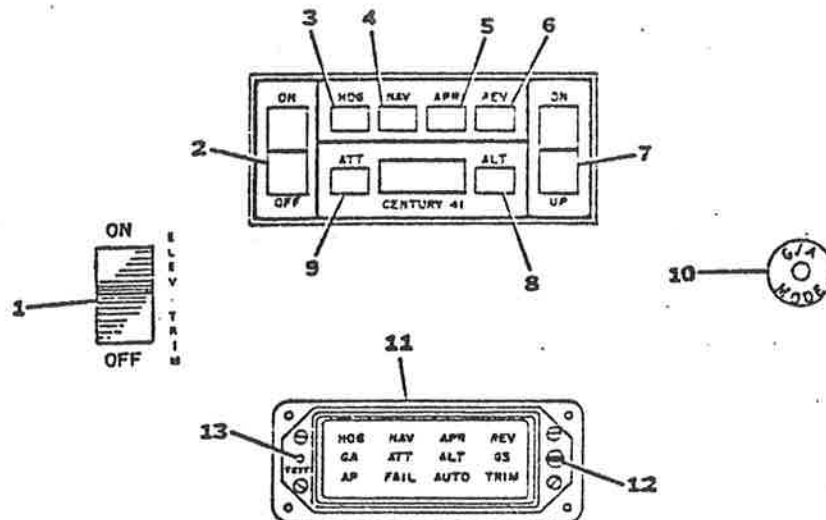
The Century 41 is activated with the aircraft master switch and operates in a low power state until the autopilot is engaged. Mode selection is made by pushing the desired mode switch on the mode programmer. The selected mode will be annunciated on the remote annunciator panel.

The annunciator panel contains an ambient light level sensor which will automatically dim the annunciator light level during night operations. The programmer contains mode recognition lights and dimming is provided by the panel light dimmer switch.

The electric elevator trim system is a fully redundant type in both the manual and autotrim modes. The trim system is powered through a separate system master/circuit breaker switch that must be "ON" during autopilot operations, and for the control wheel trim command switch to function when the autopilot is OFF.

**WARNING:** Several comments are made throughout this supplement about warnings being flashed in NAV/APR/REV and G/S modes in the event valid NAV or G/S signal is lost. This is true only if the aircraft is equipped with navigation and glide slope receivers that have external warning flag pickoffs. The Pilot should monitor raw data at all time to insure flight safety when the autopilot is engaged.

#### 4-2 COCKPIT CONTROLS AND FUNCTIONS



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1. Trim System Master/Circuit Breaker Switch - provides power for all autotrim and control wheel electric trim operations.
2. Autopilot ON - OFF Switch - Momentary rocker type switch which engages or disengages the autopilot roll, pitch and trim servos and lights or extinguishes autopilot (AP) annunciator, as appropriate.

NOTE: Anytime the autopilot is engaged, whether functioning as an autopilot only or as a flight director autopilot it will come "ON" in HDG and ATT modes with synchronization to the existing aircraft pitch attitude. This is true regardless of what other lateral or vertical modes may have been preselected.

3. HDG Mode Selector Switch - provides turn control and heading hold through use of the heading indice (bug) on the D.G. or H.S.I. heading instrument.
4. NAV (Navigation) Mode Selector Switch - provides automatic 45° VOR-LOC intercept angle; tracking and crosswind correction. Utilizes the HDG bug as the VOR course reference and a separate VOR indicator instrument for left-right information when using a D.G. or the course indicator and left-right needle for reference inputs when using an H.S.I. type compass/ VOR display. NAV mode provides automatic gain and rate reductions and bank limiting to improve tracking performance. NAV mode should normally be used as an enroute function. Select APR mode for LOC and VOR approaches.

- NOTE:
1. The HDG bug is disabled when using an H.S.I. and NAV - APR or REV is selected, except when using selected angle intercept feature (Ref. Special Modes and Operations).
  2. With a D.G., the HDG bug must be set to the desired radio course

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when using NAV - APR or REV modes.

Select desired course on HSI (or OBS and D.G.) course selector and select NAV mode for VOR tracking.

5. APR (Approach) Mode Selector Switch - provides automatic 45° VOR - LOC intercept angle, tracking and crosswind correction during instrument approach operations. DG/HSI operation and function is identical to NAV mode. Select desired course on HSI (or O.B.S. and D.G.) course selector and select approach mode.
6. REV (Back Course) Mode Selector Switch - For use in tracking the LOC front course outbound, or the LOC back course inbound, or the published VOR approach course outbound. When using an H.S.I. display always set the course selector on the inbound front localizer course or VOR inbound published approach course when using REV mode. When using a D.G. the HDG bug must be set to the direction to the airport.
7. Pitch Modifier Switch - The pitch data modifier is a momentary type switch that is used to modify either the selected attitude or altitude. When the autopilot is engaged, automatic pitch synchronization is provided to the attitude existing at engagement. In "ATT" mode, actuation of the modifier UP or DN will cause a pitch attitude change at a rate of .7° per second. In ALT mode, actuation of the pitch modifier will cause an altitude change approximating 500 FPM with automatic synchronization to the new altitude at time of release of the modifier switch.
8. ALT (Altitude) Mode Selector Switch - Selection of ALT mode will cause the autopilot to maintain the pressure level (altitude) at the point of engagement. Because of the pitch rate control provided by the autopilot, altitude mode may be engaged from any rate of climb or descent, however, for maximum passenger comfort, rate of climb or descent should be reduced to 1000 FPM or

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less prior to ALT mode engagement. Changes in altitude to accommodate altimeter setting changes may be made by simply operating the pitch modifier switch in the desired direction until the desired altitude is reached and then releasing the switch.

9. ATT (Attitude) Mode Selector Switch - provides pitch attitude stabilization with control of the attitude by use of the pitch data modifier switch.
10. GA (Go-Around) Mode - Go-Around mode is activated by a momentary type switch located on the instrument panel adjacent to the throttle or the pilot's control wheel. Activation of the GA switch causes the autopilot to switch to GA mode for pitch but does not alter the selected lateral mode. The autopilot remains engaged during the selection of GA mode. Selection of GA mode results in a nose-up pitch attitude corresponding to the attitude required for best rate of climb. Activation of Pitch Sync, ALT Mode or Pitch Modifier switch will disengage GA mode.

#### SPECIAL MODES AND OPERATIONS

1. Glide Slope (GS) Mode - The GS mode is fully automatic, therefore, no GS engage switch is used. The GS mode may be entered from either ATT mode or ALT mode, from above the GS centerline or below the centerline. GS mode cannot be entered from GA mode.

Activation of the GS mode depends upon satisfying two sets of conditions; completion of the ARMING sequence and the satisfying of an equation relating to the aircraft's position relative to the GS centerline and the rate at which the aircraft is approaching or departing from the GS centerline.

For GS mode arming, the following conditions must exist simultaneously:

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1. No. 1 NAV radio must be channeled to a localizer frequency.
2. Localizer deviation must be less than 80%, i.e., less than full scale localizer position indication.
3. Localizer flag not extended - valid LOC signal.
4. GS Flag not extended - valid GS signal.
5. System in APR mode.
6. System in either ATT or ALT mode (G/S will not arm with G/A mode selected).

When the GS mode arming conditions are met, the GS mode annunciator will illuminate in conjunction with the active pitch mode. Loss of any arming condition prior to GS capture will cause the GS annunciator to extinguish.

GS mode activation (GS capture) is indicated by the active pitch mode annunciator extinguishing, leaving only the GS annunciator lighted. Since GS mode activation results from a combination of position and rate information, GS capture will probably occur before the GS needle centers in such a manner that the transition on to the GS centerline will be anticipated and therefore, very smooth.

After GS capture, loss of valid GS signal will cause the GS annunciator to flash. Also selection of HDG, NAV or REV mode will cause GS to flash, indicating an inconsistent GS tracking condition. APR mode must be selected while tracking glide slope.

The GS mode may be deactivated by selection of any other pitch mode (ATT, ALT or GA), however, automatic reactivation is possible from any pitch mode except GA.

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Since GS arm and capture are automatic when the arming and capture sequence is met, the GS must be locked out for holding operations on the localizer at the L.O.M. When localizer holding is desired, localizer tracking must be performed in NAV mode which will offer the same tracking dynamics as APR mode but will inhibit GS arm and capture. When APR clearance is received, select APR mode for completion of the approach.

2. Selected Angle Intercepts - Selected angle intercepts may be made during VOR or localizer intercept situations by selecting HDG and NAV, HDG and APR or HDG and REV, simultaneously, as appropriate. During a selected angle intercept operation, the autopilot will follow the HDG bug until reaching the computed On Course Turn Point (O.C.T. Point) at which time capture is indicated by extinguishing of the HDG mode annunciator. Selected angle intercepts of over 60° are not recommended.

NOTE: If radio information becomes invalid (Flag) after initiation of a selected angle intercept the applicable navigation mode annunciator will flash and the autopilot will remain in HDG mode. The automatic mode shift to the invalid radio mode will not occur.

3. CWS Mode - The system is equipped with a pitch synch switch on the pilot's control wheel. When depressed and held, this switch will disengage the autopilot roll and pitch servos to allow manual aircraft maneuvering. When released, the servos will re-engage with the lateral (roll) mode previously in use activated. The pitch mode previously engaged will remain programmed in the following condition:

- a. ALT Mode - If ALT mode had been in use, the ALT mode will synchronize at the new pressure altitude existing at release of the CWS switch.

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- b. ATT Mode - If the ATT mode had been in use, the system will synchronize with the aircraft attitude existing at release of the switch.
  - c. If GA Mode had been in use - The system will revert to ATT mode and synchronize with the aircraft attitude existing at release of the switch.
4. System Test (Ground Operations Only) - The system is equipped with a comprehensive automated self test circuit which, when activated, will test the gyro excitation input circuit, the autotrim sensing and monitor circuit and all the annunciator lamps. Activation of the test switch will initiate the complete system test only when the autopilot is not engaged. When autopilot is engaged, activation of the test switch will test the annunciator lamps. The test sequence requires approximately 20 seconds for completion. If the autopilot is engaged or if the switch is released during the test sequence, the sequence will terminate immediately. Refer to Section 4-4-2 for tests required before first flight of each day.
5. WARNING System and Interlocks - The Century 41 System includes a number of automatic interlocks that will prevent system operation or individual mode operation if the input information is not valid or if other prerequisite conditions do not exist. In addition to the interlocks, the system will annunciate various failure conditions as advisory information for the pilot. Following is a brief description of the interlocks and warnings provided.

A. INTERLOCKS

- 1. Autopilot engagement is inhibited unless an excitation signal is being provided by the attitude gyro.
- 2. Selection of ALT mode is inhibited if the system altitude information is

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unreliable or if the entire system has not been powered for approximately 2 minutes to allow stabilization of the altitude source.

3. During Dual Mode (selected angle) intercepts, if the navigation information becomes invalid the appropriate NAV/APR/REV annunciator will flash and automatic mode switching from HDG to the armed navigation mode will be inhibited.

B. WARNINGS

1. Low Voltage - When the aircraft bus voltage provided the system falls below the minimum required for reliable system function, any mode annunciator not already ON will flash.
2. Attitude Gyro Excitation - Absence of valid gyro excitation will cause the autopilot to disengage and the AP and FAIL annunciators to flash. The autopilot cannot be re-engaged until this condition is corrected.
3. AP Disengagement- Anytime the autopilot is disengaged the AP annunciator will flash for approximately 5.0 seconds, then remain OFF.
4. Navigation Information Invalid - The appropriate navigation mode annunciator will flash when selected and invalid navigation signals are present (NAV Flag in view). Additionally, the appropriate navigation mode annunciator (NAV/APR/REV) will flash during a dual mode intercept if invalid navigation information is present.
5. G/S Information Invalid - The GS annunciator will flash when GS information (GS Flag in view) is invalid after the GS mode is active or when HDG, NAV or REV mode is selected after GS capture. If valid GS information is not available during the arming sequence,

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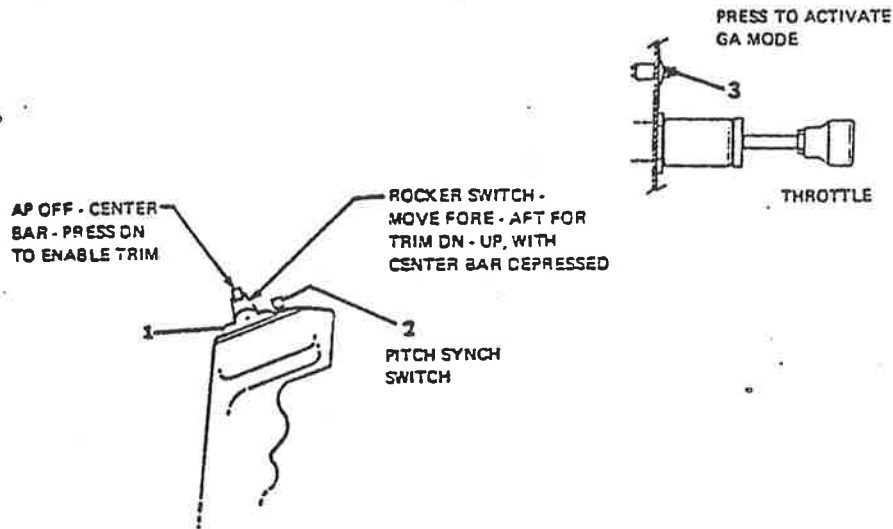
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the system will not arm and GS capture will not occur.

6. Autotrim Failure - When the autopilot is engaged and the autotrim malfunction monitor detects a trim failure, the trim servo engage solenoid is deactivated and the Autotrim and FAIL annunciators flash.

When the autopilot is engaged and trim system power is available, the Autotrim annunciator will be extinguished. If trim power is lost during AP operation the auto-trim annunciator will flash and the trim servo motor and engage solenoid outputs will be disconnected.

#### REMOTE CONTROL SWITCHES (Not located on Programmer)

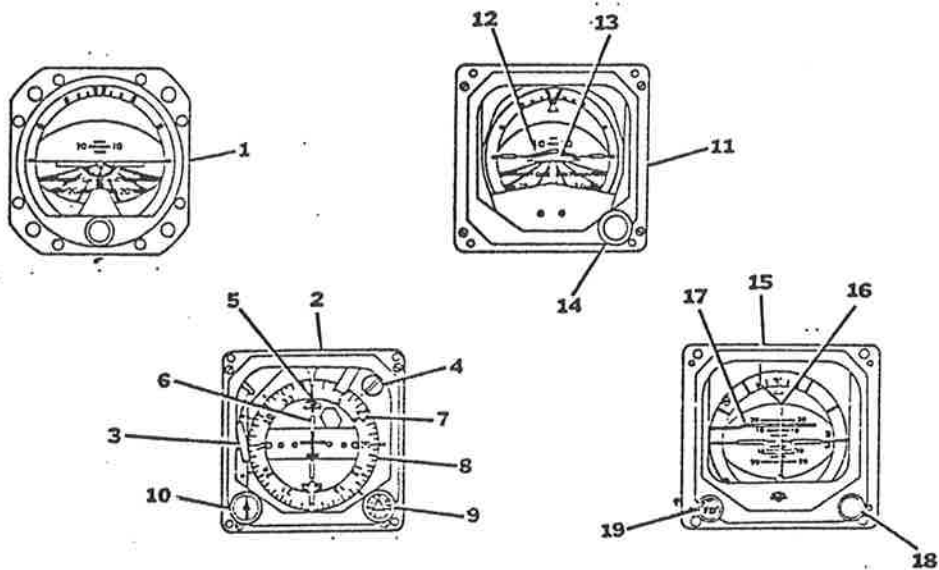


1. Command Trim Switch - Split action type switch requiring the top bar to be depressed and the rocker to be moved fore or aft to cause the electric trim to function from the control wheel switch. Depressing the center bar only will disconnect the autopilot.

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2. Pitch Synch (CWS) Switch - See explanation in Special Modes and Operations Section.
3. Go-Around Switch - The GA switch is located on the instrument panel adjacent to the throttle control. To activate GA mode, depress the GA switch momentarily. Refer to explanation under first part of this system for additional details.


#### 4-3. INSTRUMENTS



1. Standard 3" Air Driven Attitude Indicator Gyro
2. NSD 360A Compass System (shown) - For details of any other compass system, refer to manufacturer's information.
3. G/S Indicator with Flag Alarm.
4. Slaving Meter - Oscillation of needle indicates that compass is slaved to magnetic flux detector. Needle maintained in either extreme position for more than 2 - 3 minutes indicates system failure.

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NOTE: NSD 360A System includes a slaving selector switch allowing the selection of free gyro mode. Refer to emergency procedures for failure instructions.

5. VOR-LOC Bearing Selector Course Needle and Omni Bearing Indicator
6. Left-right portion of VOR-LOC Course Needle
7. HDG indice (bug) for autopilot or flight director - HDG control.
8. Compass card
9. HDG Control Knob - push in to cage instrument for initial compass setting. (NSD 360A).
10. VOR Course Needle Set Knob (O.B.S.)
11. Optional flight director instrument (A.D.I.) providing single cue type steering display.
12. Steering Command Bar - Raises and lowers for pitch commands and tilts to indicate bank direction and amount.
13. Miniature Airplane (Delta Symbol) - Operate aircraft controls to cause aircraft to pitch or bank as necessary to position  in order to satisfy computed steering commands.
14. Miniature airplane elevation knob.
15. Optional flight director instrument (A.D.I.) providing cross pointer (two-cue) steering display.
16. Vertical steering bar providing roll steering. To satisfy command, maneuver aircraft to keep vertical bar centered.
17. Horizontal steering bar providing pitch steering. To satisfy command, maneuver aircraft to keep

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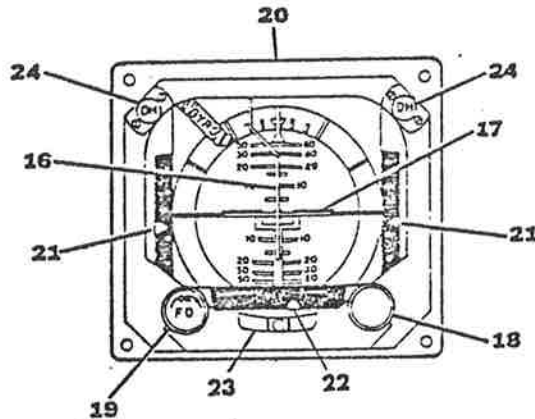
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horizontal bar centered.

18. Miniature aircraft elevation adjust.
19. Flight director OFF switch to remove steering presentation from view during autopilot operation, if desired.

NOTE: Single-cue ADI utilizes a remote flight director ON - OFF switch located on the instrument panel in close proximity to the A.D.I. (Optional)



20. OPTIONAL, 4" Cross Pointer (two-cue) flight director instrument (A.D.I.)
21. Raw Data Glide Slope Repeater Indicator Needle (2) (visible only with valid GS signal)
22. Expanded Localizer Indicator (5/8° localizer offset for full scale) (visible only with valid localizer signal)
23. Inclinator for slip - skid indication

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24. D.H. (Decision Height) annunciators for use with radio altimeter.

#### 4-4 PRE-FLIGHT PROCEDURES

NOTE: During system functional check the system must be provided adequate D.C. voltage (12.0 VDC min.) and instrument air (4.2 in. Hg. min.). It is recommended that the engine be operated to provide the necessary power and that the aircraft be positioned in a level attitude, during the functional check.

##### 4-4-1 AUTOPILOT

1. Engage autopilot.
2. Repeat flight director roll and pitch response check. Control wheel movement should correspond to HDG and pitch command input.
3. Grasp control wheel and override roll and pitch servo actuators to assure override capability.
4. Hold control yoke and disengage autopilot by activating the control wheel trim switch.
5. Check controls through full travel in roll and pitch to assure complete autopilot disengagement.
6. Retrim aircraft for take-off.

##### 4-4-2 TRIM SYSTEM

The autopilot is provided with an electric elevator trim system having two modes of operation. When the autopilot is engaged and the trim master/circuit breaker switch is ON, automatic electric trim (auto-trim) is provided. When the autopilot is disengaged, command electric elevator trim is available by use of the control wheel switch provided or by use of the primary trim control wheel. The electric elevator trim system has been designed to withstand any type of single failure, either mechanical or electrical, without uncontrolled operation resulting. The automated system self test circuit

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provided, in conjunction with a functional check, described below, will uncover internal failures that otherwise could remain undetected and thus compromise the fail-safe properties of the system. Proper operation of the system is, therefore, predicated on conducting the following pre-flight checks before the first flight of each day. The following procedure will check the operation of the autotrim and autopilot monitor and control wheel switch systems.

The command electric trim switch on the left portion of the pilot's control wheel has two functions:

1. When the top bar (AP OFF) is pressed, it disconnects the autopilot.
2. When the top bar is pressed AND the rocker is moved forward, nose down trim will occur; when moved aft, nose up trim will occur.

### TRIM CHECK

#### Command Trim - Before the First Flight of Each Day

1. Push trim master/circuit breaker switch ON.
2. Verify normal Trim UP and DOWN operation with control wheel switch.
3. Activate center bar only - Push rocker fore and aft only. Trim shall not operate with either separate action.

Any failure of the above operations indicates that a failure exists in the system and the Command Trim shall not be operated until the failure has been identified and corrected.

#### Autotrim - Before the First Flight of Each Day

1. Check trim master/circuit breaker switch ON, autopilot OFF.
2. Press and hold TEST Pushbutton on Mode Annunciator. Verify the following sequence. (Each sequence will last approximately two seconds.):

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- a. All annunciations light with FAIL and AP flashing.
  - b. Autotrim flashes, goes steady, then flashes.
  - c. All lights go steady.
  - d. After three to five seconds, AUTOTRIM and FAIL flash continually.
3. With TEST button on the Mode Annunciator still depressed, verify Trim will not operate in either direction with the Control Wheel Switch.
  4. Release TEST Pushbutton. All lights except HDG and ATT shall extinguish.

Any deviation from the above sequence indicates that a failure exists in either the primary system or in the monitor circuits. The autopilot and trim system shall not be operated until the failure has been identified and corrected.

CAUTION: Recheck trim position prior to initiating takeoff.

#### 4-4-3 FLIGHT DIRECTOR

1. Check circuit breaker - IN.
2. Flight director switch on A.D.I. - ON. (Adjacent to A.D.I. on single cue A.D.I., if installed)
3. Pitch modifier DN - UP - check pitch steering indicator moves appropriately.
4. HDG indice RT - LT - check roll steering indicator moves appropriately.

#### 4-4-4 COMPASS SYSTEM (NSD 360A) (For other compass systems, refer to appropriate manufacturer's instructions)

1. Check slaving switch in slave or slave 1 or 2 position, as appropriate. (Slaving systems with

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R.M.I. output provide only slave and free gyro positions.)

2. Rotate card to center slaving meter - check HDG displayed with magnetic compass HDG.
3. Perform standard VOR receiver check.
4. NAV - APR - Engage NAV or APR mode switch and observe steering bar indicates turn toward the VOR needle.

NOTE: If the Omni Bearing Selector is more than 45° from the aircraft heading, the flight director steering bar will only indicate a turn toward the omni bearing.

#### 4-5 IN-FLIGHT PROCEDURE - FLIGHT DIRECTOR

1. Century 41 circuit breaker - IN. Flight director switch - ON.
2. Adjust HDG indice to aircraft heading and select desired pitch attitude by activation of the CWS switch or the modifier switch.
3. Maneuver aircraft manually to satisfy the commands presented. Select other modes as desired, refer to Section 4-2 for mode description.

#### 4-6 IN-FLIGHT PROCEDURE - AUTOPILOT/FLIGHT DIRECTOR AUTOPILOT

1. Flight director switch - ON, if desired. Rotate heading indice to desired heading.
2. Trim aircraft for existing flight condition (all axes). Engage autopilot.
3. During maneuvering flight - control aircraft through use of the HDG indice and the pitch modifier. (HDG-ATT modes)

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4. For navigation operations select modes as required by the operation being conducted and in accordance with the mode description provided in Section 4-2. For specific instructions relating to coupled instrument approach operations, refer to Special Operations and Information Section, 4-8.

#### 4-7 IN-FLIGHT PROCEDURE - COMMAND/AUTOTRIM SYSTEM

1. Trim master/circuit breaker switch - ON.
2. When the autopilot is engaged, pitch trim is accomplished and maintained automatically.
3. With the autopilot OFF, command trim is obtained by pressing and rocking the combination TRIM-AP disconnect bar on the pilot's control wheel trim switch.

#### 4-8 SPECIAL OPERATIONS AND INFORMATION

##### ALTITUDE HOLD OPERATION

For best results, reduce rate of climb or descent to 1000 FPM before engaging altitude hold mode.

##### INSTRUMENT APPROACH OPERATIONS

Initial and/or intermediate approach segments should be conducted between 100 - 110 KIAS (115 - 126 MPH) with the flaps extended from 0° to full down position. Upon intercepting the glide path or when passing the final approach fix (FAF) immediately lower the landing gear and reduce the power for approximately 80 - 90 KIAS (94 - 104 MPH) on the final approach segment. Adjust power as necessary during remainder of approach to maintain correct airspeed. Monitor course guidance information (raw data) throughout the approach. All power changes should be of small magnitude and smoothly applied for best tracking performance. Do not change aircraft configuration during approach while autopilot is engaged. For approaches without glide path coupling, adjust pitch attitude in conjunction

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with power to maintain desired airspeed and descent rate.

NOTE: Flight director or autopilot will not decouple from the GS or localizer in the event of radio failure, however, warnings will flash in the mode appropriate to the failure. Monitor course guidance raw data during the approach to assure signal quality.

#### INSTRUMENT APPROACH GO-AROUND MANEUVER

1. Select GA mode at the remote GA switch.
2. Add take-off power, or power as desired.
3. Check that correct attitude and a positive rate of climb is indicated, then raise gear and flaps.
4. Set desired HDG and select HDG mode for lateral maneuvering.

#### SECTION 5

##### PERFORMANCE

Text of this Section not affected by Supplement.

#### SECTION 6

##### WEIGHT AND BALANCE

Text of this Section not affected by Supplement.

#### SECTION 7

##### SYSTEMS

Text of this Section not affected by Supplement.

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SECTION 8

HANDLING AND SERVICE

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