### Windshield Warning

- **Preparatory Flight Director TOGA mode and (GPS)**
- **See SIPS/KID INDICATORS section**
- **Change**
- **Display for 5 seconds after mode activation of value**

#### Notes:

<table>
<thead>
<tr>
<th>Category</th>
<th>Symbol</th>
</tr>
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<tbody>
<tr>
<td>TOAS Resolution Advisory</td>
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<tr>
<td>TOAS Final Announcement</td>
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#### TOAS Symbols:

<table>
<thead>
<tr>
<th>Category</th>
<th>Symbol</th>
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<tbody>
<tr>
<td>Flight Director Guidance Cue</td>
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<tr>
<td>Flight Director Final Announcement</td>
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<tr>
<td>V/LOC Vertical Mode Announcement</td>
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<tr>
<td>P/LOC Level Mode Announcements</td>
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<tr>
<td>Autopilot Mode Annunciation</td>
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<tr>
<td>Autopilot Status Annunciation</td>
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<tr>
<td>VOR/LOC Final Announcement</td>
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<tr>
<td>VOR/LOC Final Announcement (1)</td>
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<tr>
<td>V/LOC Final Announcement (2)</td>
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#### Category III Symbols:

<table>
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<tr>
<td>Approach Warning Message (5)</td>
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### Table: Warning Messages

<table>
<thead>
<tr>
<th>Mode</th>
<th>Rollout</th>
<th>Approach</th>
<th>Ground</th>
<th>In-Flight</th>
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<tbody>
<tr>
<td>VMC</td>
<td>Mode</td>
<td>Mode</td>
<td>Mode</td>
<td>All Mode</td>
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</table>
GARFMAN 1-1

Weather: Airmfit Flight Manual (AFM) supplement. Minimizes equipment required for these low weather operations is conducted in accordance with FAA Advisory Circular 120-73.

Advisory: The HGS has been shown to meet applicable performance criteria of FAA Advisory Circular 120-73A (Category I and II), and those published in
the applicable performance criteria of FAA Advisory Circular 120-73B (Category I and II). The HGS is approved for use throughout the full flight regime.

GENERAL

Procedures: Conducted in accordance with the operator's approved operating procedures. Once authorized, all operations must be conducted in accordance with the approved operating procedures. The FAA, VTA, and EASA, which are the applicable regulatory agencies. The operator and the applicable regulatory agencies are the responsible for the operation.

SPECIAL OPERATIONS: (9) The FAA, VTA, and EASA are the applicable regulatory agencies. The operator and the applicable regulatory agencies are the responsible for the operation. The operator and the applicable regulatory agencies are the responsible for the operation.

SECTION 5

Model 4000
Normal procedures, refer to the Typical Flight Profile Section for instructions on HGS symbolology as associated with the following mode for 2-5 seconds then extinguish. Select TEST again to exit the TEST mode. In the event that the annunciator is not illuminated by another means for a total of 2-5 seconds, the HGS annunciators will extinguish. The check position for the Map display is accomplished during a roll and pitch switch to the pilot's normal orientation as the ground. The HGS annunciators are equipped with the HGS annunciator panel located on the EFIS HGS annunciator panel to allow the HGS annunciator panel to be removed from the EFIS HGS annunciator panel. HGS annunciator panel located on the EFIS HGS annunciator panel. HGS annunciator panel located on the EFIS HGS annunciator panel. HGS annunciator panel located on the EFIS HGS annunciator panel. HGS annunciator panel located on the EFIS HGS annunciator panel. HGS annunciator panel located on the EFIS HGS annunciator panel. 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In addition to these standard procedures, the following notes should be included.

**NOTE:** A standard operating procedure may include the steps outlined in the HGS display.

**Climb/Cruise:**
- Model 4000
- HGS Pilot Guide
- Boeing 737 - NG

**Descent:**
- **HGS Considerer**:
  - SET X CHECKED
  - In the Descent - Approach checklist.

**Visibility Training:**
- Required training for HGS operation.

**Contact:**
- **First Officer (PF):**
  - Model 4000
  - HGS Pilot Guide
  - Boeing 737 - NG
Supplemental Procedures

Model 4000
HG5 Pilot Guide

**Takesoff (Normal w/o Steering Guidance)**

Visual approaches, and wind shear operations.

---

Wind shear.

In the event of any abnormal operation (a.g., an engine out) or a
HG5 display provides enhanced situational awareness, particularly
in the absence of a GSS display. HGS displays are required for use of the
procedures. HG5 displays are used to HGS primary mode standard operating
procedures, use a GSS flight director. A PFD will display

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<tr>
<th>LG ELL</th>
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Essentially, the IMC mode may be used during any non-visual approach.

However, there are cases (e.g., CAT I) where visual approach is required for the safe operation of the aircraft.

- The IMC mode is selected.
- Approach/Version of the IMC mode is selected.
- The IMC mode is displayed from the IMC approach.
- The IMC mode is selected.
- The IMC mode is displayed.

For an IMC approach, the display information is the same as in the visual approach.

Visual Approach

The IMC mode allows Flight Director approach to be flown in the following figures.

Illustration depicts in IMC approach.

Visual Approach

The pilot is in visual contact with the runway and the visual approach is followed. The GS is displayed on the GSI and the ground. The IMC approach is selected when the GS is displayed on the GSI and the ground. The IMC mode is displayed on the GSI and the ground. The GS is displayed on the GSI and the ground. The IMC approach is selected when the GS is displayed on the GSI and the ground. The IMC mode is displayed on the GSI and the ground. The GS is displayed on the GSI and the ground.
necessary.

The pilot monitors the proper glidepath by keeping the pitch correct. Once the reference glidepath angle is established on the runway, the pilot must maintain a higher glidepath angle until they intersect. The pilot must maintain a higher glidepath angle until the proper runway is established. The dashed line is shown of the TDOZ on the symbols (dashed line). This is the glidepath reference glidepath angle. This is determined when the glidepath reference glidepath angle. The pilot must maintain the angle to intersect the proper runway.

In Figure 5-3, the aircraft is now aligned laterally with the runway and the glidepath reference glidepath angle. The pilot must maintain this glidepath reference glidepath angle until they intersect. The pilot must maintain a higher glidepath angle until the proper runway is established. The dashed line is shown of the TDOZ on the symbols (dashed line). This is the glidepath reference glidepath angle. This is determined when the glidepath reference glidepath angle. The pilot must maintain the angle to intersect the proper runway.

In Figure 5-2, the pilot is maneuvering the aircraft to establish this glidepath reference glidepath angle. The pilot must maintain this glidepath reference glidepath angle until they intersect. The pilot must maintain a higher glidepath angle until the proper runway is established. The dashed line is shown of the TDOZ on the symbols (dashed line). This is the glidepath reference glidepath angle. This is determined when the glidepath reference glidepath angle. The pilot must maintain the angle to intersect the proper runway.

Figure 5-3. VMC Approach - Vertical Alignment

Figure 5-2. VMC Approach - Lateral Alignment

Model 4000
Boeing 737 - NG
HGS Pilot Guide
Follow operating established windshear procedures. No HGS unique procedures are required.

An escape a windshear.

**Windshear escape procedures:**

1. Make critical time-sensitive decisions to successfully avoid or recover from windshear conditions. This combination also permits the pilot to maintain control of the aircraft and regain situational awareness.

2. Display the windshear phenomenon on the flight guidance panel.

In addition to the GPWS windshear detection, the windshear detection system may be used to indicate and avoid windshear encounters. These windshear displays provide the pilot with situational awareness and guidance.

**NOTE:** Upon selection of TOGA, the HGS system will revert to the primary mode.

AOA stick shaker.

If the windshear sensor detects a windshear condition, the TOGA stick shaker is activated. The windshear sensor is connected to the flight control system, which then sends signals to the flight control system to initiate the stick shaker.

**Windshear Display:**

The windshear display is a graphical representation of the windshear and surrounding areas. The display shows the direction and intensity of the windshear, as well as any potential hazards. The display is designed to help the pilot make informed decisions and take appropriate action to avoid or mitigate the effects of windshear.

**Figure 5-6: HGS Windshear Display**

- The windshear display provides critical information to the pilot, allowing them to take necessary actions to ensure a safe flight.
- The display is an integral part of the HGS system, ensuring that the pilot is never left without critical information.
Sensor failure
remains symbolized.

Degraded display
probe's ability to make critical line-of-sight decisions.

NON-NORMAL PROCEDURES
Boeing 737 - NG  
HGS Pilot Guide
Model 4000

The failure of any HGS display sensor will result in the removal of all HGS non-normal procedures provided in this section; the procedures in the alternate display system are primarily based on a secondary source of information.
The Low Visibility Takeoff can not be performed.

If the visibility requirements for the runway, surrounding area, and the aircraft are not met, the Low Visibility Takeoff is prohibited.

The Low Visibility Takeoff is not recommended for aircraft approaching 7000 and 13,000 feet (2286 and 4115 meters) above the runway.

In the event that the Low Visibility Takeoff is necessary, the aircraft应当 be equipped with the appropriate Low Visibility Takeoff equipment.

The aircraft shall be equipped with the appropriate Low Visibility Takeoff equipment.

Low Visibility Takeoff equipment may be lost due to the aircraft being

Equipment Capabilities

Model 4000

HGS Pilot Guide

Boeing 737 – NG

May 2000

The use of this information is subject to the restriction of the proprietary notice.
Visual Approach - VMC or IMC

Model 4000

HGS Pilot Guide

Boeing 737 - NG

Information and circumstances appropriate to the pilot must be available on the approach markings or diagram and the approach plate, and if any error of the aircraft is committed or a go-around is required, the pilot must be provided with guidance on how to correct the error or continue the approach. The pilot must be provided with guidance on whether and how to proceed with the approach, including any necessary climb. If the approach is continued, the pilot must be provided with guidance on whether and how to return to the previous course, including any necessary climb. The pilot must be provided with guidance on whether and how to return to the previous course, including any necessary climb.

5-22

Model 4000

HGS Pilot Guide

Boeing 737 - NG
Typical Flight Profile

SECTION 6

Model 4000

Boeing 737 - NG
HGS Pilot Guide
resulting in a groundspeed of 217 knots. The squawk 245 is in use. 225 knots is the target speed, and the GTAS will be used to maintain this speed. The aircraft is climbing at a rate of 500 feet per minute, and the altitude is 2800 feet. The VOR is set to a bearing of 300 degrees. The aircraft is currently climbing at a rate of 500 feet per minute, and the altitude is 2500 feet. The VOR is set to a bearing of 300 degrees.

Figure 6-5: Coordinated Turn

Figure 6-4: Climbing Turn

COORDINATED TURN

Model 4000
Boeing 737 - NG
HGS Pilot Guide

CLIMBING TURN

Model 4000
Boeing 737 - NG
HGS Pilot Guide
Figure 6-7. Descend.

Descent is displayed on the symbol. The symbol becomes non-contour and is displayed greened or shaded to indicate the block of the descent. The block of the descent is displayed by the outer box. The symbol is shown in green to indicate the descent angle of the aircraft. The descent angle is equal to the ground speed multiplied by the block of the descent.

In Figure 6-7, the new descent altitude is 15,000 feet. The aircraft is shown in the descent mode.

LEVEL FLIGHT

In Figure 6-6, the aircraft is at 27,000 feet. The symbol is shown in the level flight mode. The symbol is shown in green to indicate the level flight mode. The aircraft is shown in the level flight mode.
seconds later the HGS mode will change to ALL
NAV will begin flashing when the VMC is satisfied. The
NAV will stop flashing when the VMC is satisfied and
ALL NAV is engaged. In Figure 6-11, the "ALL" portion of the
NAV may be selected for automatic engagement. As indicated by
the white lettering in the "A" position of Figure 6-11, the "ALL" mode was
used for automatic engagement. As indicated by
the white lettering in the "A" position of Figure 6-11, the "ALL" mode was
used for automatic engagement.

The pilot can delay the all mode selection but it must be
selected by pressing the MODE key or the HCP.

All models are selected by pressing the "MODE" key or the HCP.

The all mode is selected by pressing the mode key on the HCP.

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Use of diesole of this information is subject to the restriction of the property owner.

Figure 6-12 ALL Approach

NOTE: The digital elevation data is only displayed for five seconds.

The controller will note that the all mode is engaged when the final approach configuration is selected.

Figure 6-13. ALL Approach - 500 Feet

HGS Pilot Guide

Boeing 737-NG

Model 4000
Conditions require the use of Rollon Guidance.

The roll must exceed ±4° for at least 10 seconds to begin RMG. The Roll must exceed ±4° for at least 10 seconds to begin RMG.

The Roll must exceed ±4° for at least 10 seconds to begin RMG.

The Roll must exceed ±4° for at least 10 seconds to begin RMG.

The Roll must exceed ±4° for at least 10 seconds to begin RMG.

The Roll must exceed ±4° for at least 10 seconds to begin RMG.
Figure 6-17. AII Approach - Touchdown

Figure 6-16. AII Approach - 45 Foot

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**AII Approach - Fire/Touchdown**

Model 4000

**AII Approach - 45 Foot**

Model 4000

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Use of disclosure of this information is subject to the restriction of the proprietary notice.

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**AII Approach - Fire/Touchdown**

Model 4000

**AII Approach - 45 Foot**

Model 4000

---

Use of disclosure of this information is subject to the restriction of the proprietary notice.
NOTE: A ground-localizer line or ground-localizer deviation symbol is displayed in either the all-ill or all-approach/all-roll configuration. The display changes from the all-ill configuration to the all-approach configuration when the airplane flies through the outer arc on the width-angle localizer deviation symbol. The width-angle localizer deviation symbol is displayed in either the all-ill or all-approach configuration when the airplane flies through the outer arc on the width-angle localizer deviation symbol.
less than 5 feet

CWS #1 & #2 are less than 7.5 knots and Radio Altitude is

less than 50 feet for 1 second, or

Radio Altitude is less than 4 feet and (Pitch Attitude is less

followed by a negative pitch rate, or

Wheel Height is less than 6 feet and Wheel Touch is less

is detected in either wing of the following conditions exist:

Aircraft Touchdown - For purposes of the HGS, "Aircraft Touchdown

5 feet

was previously less than 20 feet or Radio Altitude is greater than

Radio Altitude is less than 20 feet.

Aircraft on Ground - For purposes of the HGS, "Aircraft on Ground is

Tread Contact is less than 15 feet.

Either #1 or #2 Glide Slope and Locator are captured.

Both VHF NAVs are tuned to an ILS frequency.

defined as occurs when the

Approach on Course (AOC) - For purposes of the HGS, "AOC is

Touchdown on Runway on Ground

be in flight from the time the Aircraft Touchdown occurs until

Aircraft in Flight - For purposes of the HGS, the Aircraft is defined to

(6071), the Aircraft is not in flight.

less than 10 degrees and Locator Deviation is less than 1/2 of a dot

difference between the Selected Course and Magnetic Heading is

Aircraft Aligned on Runway - For the purposes of the HGS, "Aircraft

engaged.

in lieu of, refer to other definitions.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMG</td>
<td>True track speed</td>
</tr>
<tr>
<td>VFC</td>
<td>Visual meteorological conditions</td>
</tr>
<tr>
<td>VHF</td>
<td>Very high frequency</td>
</tr>
<tr>
<td>VOR</td>
<td>VHF omnidirectional range</td>
</tr>
<tr>
<td>VNAV</td>
<td>Vertical navigation</td>
</tr>
<tr>
<td>VREF</td>
<td>Reference speed</td>
</tr>
<tr>
<td>VR</td>
<td>Rollation speed</td>
</tr>
<tr>
<td>VTO</td>
<td>Touchdown zone elevation</td>
</tr>
<tr>
<td>TDZE</td>
<td>Traffic collision avoidance system</td>
</tr>
<tr>
<td>TVC</td>
<td>Traffic advisory/vertical speed indicator</td>
</tr>
<tr>
<td>TMC</td>
<td>Traffic Management and Control Unit</td>
</tr>
<tr>
<td>RMG</td>
<td>Radar monitor</td>
</tr>
<tr>
<td>RSVP</td>
<td>Radar display units (left and right)</td>
</tr>
<tr>
<td>RFU</td>
<td>Rollout guidance control unit</td>
</tr>
<tr>
<td>NFV</td>
<td>Near field vertical</td>
</tr>
<tr>
<td>NDV</td>
<td>Normal display viability</td>
</tr>
<tr>
<td>NPFD</td>
<td>Near field display viability</td>
</tr>
<tr>
<td>NORM</td>
<td>Normal display viability</td>
</tr>
</tbody>
</table>

**Delta** - the difference between

less than

greater than or equal to

degrees

Crosswind deviation

XTK

Weather radar

VFR

Vertical speed

V/S or V/S

VOR

VNAV

Reference speed

VREF

Rollation speed

VR

Model 4000

Model 737 - NG

Model 4000
The NASA 757 HGS operates as described in the Model 4000 HGS Pilot Guide for the 737 NG unless stated otherwise below. Comments below follow Pilot Guide sections and headings.

Section 1 – Introduction

Basic HGS description is as stated.

CAT Illa approach, landing, and rollout (AllI mode) are disabled (airframe-specific data and algorithm tuning required).

Options are set according to NASA 757 configuration and desired functionality (settings in interface document and discussed in following sections).

Section 2 – HGS Description and Operation

HGS LRUs are as described. The form of the NASA OHU and Combiner are different from that shown in the 4000 pilot guide, but functionality is the same.

The Annunciator Panel is not installed (used for AllI, Rollout only).

Reference Glideslope Data Entry – This value will set the position of the Reference Glideslope Line on the display in the IMC and VMC modes. As the AllI mode is disabled, any value between 0 and –9.99 may be entered (note that an entry of 0 removes the Reference Glideslope Line from the display).

Runway Data Entry – With the AllI mode disabled, runway data entry is not required for landing (if when AllI mode and Rollout are enabled, runway elevation and length data entry will be required for landing as described). Runway Length data entry as described for takeoff is required to use the low visibility takeoff guidance (see section 5, takeoff), otherwise Runway Length data entry is not required.

Combiner – NASA Combiner form is different from that shown in Pilot Guide.

Combiner Position – Stow and breakaway controls on NASA Combiner have different form and operation from those shown in Pilot Guide.

Combiner Display Brightness – Manual and automatic modes work as described in Pilot Guide. When “Normal” selected on Normal/Research switch, Combiner brightness knob controls both stroke and raster. When “Research” selected on Normal/Research switch, Combiner brightness knob controls both stroke only.

Raster Display Adjustment – The brightness and contrast of the raster image on the Combiner are controlled by the separately-mounted raster adjustment knob. The raster adjustment knob can either be pushed in or pulled out and rotates for adjustment. When the raster adjustment knob is pushed in, rotating the knob adjusts the brightness of the raster imagery. When the raster adjustment knob is pulled out and the Normal/Research switch is in the “Normal” position, rotating the knob adjusts the contrast of the raster imagery. When the raster adjustment knob is pulled out and the Normal/Research switch is in the “Research” position, the effect of the raster adjustment knob on the raster imagery is controlled by the NASA research systems.

HGS Annunciator Panel – Not installed (used for AllI & Rollout only).
Section 3 – Modes of Operation

Available modes in NASA HGS are Primary, IMC, VMC. All III mode is disabled.

Primary Mode – Flight Director and Autothrottle modes not displayed. Otherwise, operates as described.

All III Approach Mode – Disabled.

IMC Approach Mode – Operates as described.

VMC Approach Mode – Operates as described.

Section 4 – Symbology

Aircraft Reference Symbol – On the NASA 757, the Aircraft Reference symbol is positioned 4 degrees above the display’s vertical center. This position is a property of the optical system, and the OHU and Combiner on the NASA 757 (not Model 4000) are designed for and were installed with a 4 degree boresight angle.

Tail Strike Pitch Limit – Symbol disabled (airframe-specific data required for algorithm).

Bearing Source Annunciations – Symbols (annunciations and pointers) disabled (ADF data not available, NASA preference to not show VOR pointers).

Guidance Cue – All discussion related to landing rollout guidance and All III mode guidance is not applicable (functions disabled).

Ground Roll Reference – Displayed during low visibility takeoff only (rollout disabled).

Digital Runway Elevation – Symbol disabled (shown in All III mode only, which is disabled).

Digital Runway Length – Symbol disabled (shown in All III mode only, which is disabled).

Rollout Excessive Deviation - Symbol disabled (shown in All III rollout only, which is disabled).

Runway Remaining – Displayed during low visibility takeoff only (All III rollout disabled). Units set to feet.

Runway Edge Lines – Symbol disabled (shown in All III mode only, which is disabled).

Idle Message – Symbol disabled (shown in All III mode only, which is disabled).

Ground Deceleration Scale – Marks correspond to deceleration levels of autobrake settings on 737 (1 = 4 ft/sec², 2 = 5 ft/sec², 3 = 7.2 ft/sec², Max = 13 ft/sec²). Correlation with 757 autobrake settings has not been established.

AOA Limit – Symbol disabled (aircraft data required to drive symbol not available).

High Speed Buffet Speed – Symbol disabled (aircraft data required to drive symbol not available).

Minimum Operating Speed – Symbol disabled (aircraft data required to drive symbol not available).

Stick Shaker Airspeed – Symbol disabled (aircraft data required to drive symbol not available).

Flap Maneuver Speeds – Symbols disabled (aircraft data required to drive symbols not available).
Section 4 – Symbology (continued)

Takeoff Speed Bug – Symbol disabled (N/A for 757).

Manual Bug 5 Speed Indicator – Symbol disabled (N/A for 757).

Reference Speed Indicator – Displayed when reference speed is valid out of FMS and flaps are greater than 18 degrees (per coordination with NASA). When displayed, small bugs also displayed at Vref+40 and Vref+80 knots.

VREF + 15 bug – Symbol disabled (not required for 757 operations).

All Flare Command – Symbol disabled (shown in All mode only, which is disabled).

Baro Minimums Bug – Symbol disabled (aircraft data required to drive symbol not available).

Selected Minimums Readout – Shows only DH (MDA data not available).

Windshear Warning – Symbol disabled (aircraft data required to drive symbol not available).

Windshear Guidance Cue – Flight Director Guidance Cue is never filled in (since W/S data not available).

All Flare Command – Symbol disabled (shown in All mode only, which is disabled).

Approach Warning – Symbol disabled (shown in All mode only, which is disabled).

All Mode Annunciation – Symbol disabled (shown in All mode only, which is disabled).

Tail Strike Warning Message – Symbol disabled.

Navigation Source Annunciations – ILS2 and VOR2 will not be displayed (source select switch data not available). Annunciation will switch between ILS1 and VOR1 according to #1 Nav tuning.

Lateral Deviation – Primary Mode – CDI will not flash for excessive deviation (aircraft data required for flashing not available).

Lateral Deviation – IMC Mode (All disabled) – Localizer Line will not flash for excessive deviation (aircraft data required for flashing not available).

Glideslope Deviation – Primary Mode – Glideslope Deviation Pointer will not flash for excessive deviation (aircraft data required for flashing not available).

Glideslope Deviation – IMC Mode (All disabled) – Glideslope Line will not flash for excessive deviation (aircraft data required for flashing not available).

Ground Localizer Line – All discussion related to All mode is not applicable (function disabled).

Ground Localizer Deviation Scale and Pointer – Symbol disabled (option not selected, line displayed).

Autothrottle Mode Annunciations – Symbol disabled (modifications required exceeded time available).

Flight Director Mode Annunciations – Symbol disabled (modifications required exceeded time available).

Autopilot/Mode Status Annunciations – Symbol disabled (modifications required exceeded time available).
Section 4 – Symbology (continued)

Failure Flags and Data Source Indications

Maximum Operating Speed or Stick Shaker Airspeed failure – “SPD LIM” only displayed for Maximum Operating Speed failure (stick shaker speed data not available).

Localizer Miscompare during a Low Visibility Takeoff or Rollout – “LOC CMP” only displayed during Low Visibility Takeoff (Rollout disabled).

Selection of the #2 IRS source (IRS transfer switch) – “ATT2” will not be displayed (source select switch data not available).

HGS Mode/Symbology Matrix – symbol display subject to above comments.

Section 5 – Operations

Disregard all discussions of CAT IIIa approach and landing and AC 120-28D.

Normal Procedures

Preflight

HGS Control Panel – With AllI mode disabled, Runway Elevation data entry is not required (no effect whether it’s entered or not).

HGS Annunciator Panel – Disregard (panel not installed).

Descent

Runway Elevation - With AllI mode disabled, Runway Elevation data entry is not required (no effect whether it’s entered or not).

Runway Length - With AllI mode disabled, Runway Length data entry is not required for landing (no effect whether it’s entered or not).

Disregard all discussions of AllI mode.

Approach & Landing

Disregard all discussions of AllI mode and related functionality.

Supplemental Procedures

Windshear

Disregard all discussions of "WINDSHEAR" message, filled-in FD guidance cue, and AOA bracket. General HGS symbology discussions still apply.