

Project No: **BDHRN002**Job Card No **0160**

Notif.No.: 10049106

Activity: **1003**

Rev No: 20000622

Model.: F900EX

Sheet 1 of 1

A/C Regn: **D-AHRN**

Serial No.: 096

Type: F900EX

Starting Phase: Functions

Starting Work Centre: MTX AVIO DEPT

Job Description: **OPC Head-Up Guidance System**

ETOPS A/C: No

RVSM A/C: No

Warranty: -

ATA: 34

Check Type: 2A+ Inspection

Work Center	
MTX AVIO DEPT	

**Zone: 200****Access Required for this task:**

PAX

## Corrective Action

0001	<b>Task carried out in accordance with the attached Customer Card that quotes the Operator code detailed below.</b>					  Order: 80069227 Operation: 0010 Phase: Functions - scheduling activity Work Center: MTX AVIO DEPT
	Accomplished		Inspected			
	Pers. No.	Date	Pers. No.	Date		
	Stamp		Stamp			

Completed & Confirmed on SAP IAW MOE 2.13.

**Defect Card Raised**

## Components Removed/Installed

	Part Number	Part Name	S/N	Location	Comm. Off/On
OFF					
ON					
OFF					
ON					
OFF					
ON					
OFF					
ON					

Occurance Report Raised? YES ☐

Operations Above &amp; Notifications Completed IAW MOE 2.13.



OEM Code: 34-31-00-710-801

Operator Code: 34-31-00-710-801-01

Form No: JA-SAP-MTX-002

Printed by: ADAMOVIC G



Printed: 03.09.2012

13:34:17

Print No: 1

Operator: **HERON AVIATION**

Work Card No.: **34.540**

Serial No.: **096**

Model: **FALCON 900EX**

**PKG # 12 2A+ INSPECTION**

Reg No.: **D-AHRN**

Workorder No.: \_\_\_\_\_

	Date	A/C HRS	AFL	APH			
Due At	<b>25-NOV-2012</b>						
Accomplished							

TECHNICIAN SIGNATURE: \_\_\_\_\_ KIND OF CERTIFICATE & NO.: \_\_\_\_\_

INSPECTED BY: \_\_\_\_\_ KIND OF CERTIFICATE & NO.: \_\_\_\_\_

TECH	INSP	LABOR-HRS HRS.MINS
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**>34-31-00-710-801- OPERATIONAL TEST OF THE HEAD-UP GUIDANCE SYSTEM  
01 (HGS)**

\_\_\_\_\_

REMARKS : \_\_\_\_\_

AMM 34-31-00-710-801

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### TASK 34-31-00-710-801

## OPERATIONAL TEST OF THE HEAD-UP GUIDANCE SYSTEM (HGS)

### 1. OVERVIEW OF THE JOB

Operation code: 34-31-00-710-801-01

NOTE: Successful completion of this test returns the aircraft to CAT III/HUD III status.

### 2. LOGISTICS

#### A. References

##### Reference

- [24-00-00-860-801](#)
- [34-31-00-100-801](#)
- [34-31-00-710-802](#)

##### Designation

ENERGIZATION / DE-ENERGIZATION OF THE AIRCRAFT  
CLEANING OF THE HEAD-UP GUIDANCE SYSTEM (HGS)  
OPERATIONAL TEST OF THE HGS LINE REPLACEABLE UNITS (LRU)

#### B. Energy

- ELECTRICAL

#### C. Access

##### Reference

- **PAX**

##### Designation

PASSENGER DOOR

### 3. PRELIMINARY STEPS

Refer to **fig. 1**

- Connect the electrical ground power unit (Refer to [TASK 24-00-00-860-801](#), paragraph "Connection of the Electrical Ground Power Unit").
- Unlock combiner ([713RA](#)).
- Rotate combiner ([713RA](#)).
- Remove the cloth cover from combiner ([713RA](#)).
- Energize the aircraft systems (Refer to [TASK 24-00-00-860-801](#), paragraph "Energization with the Electrical Ground Power Unit").

### 4. OPERATIONAL TEST OF HEAD-UP GUIDANCE SYSTEM (HGS) LINE REPLACEABLE UNITS (LRU)

Refer to **fig. 1**

- Perform an Operational Test of Head-up Guidance System (HGS) Line Replaceable Units (LRU) (Refer to [TASK 34-31-00-710-802](#), paragraph "Operational Test").

### 5. HEAD-UP GUIDANCE SYSTEM (HGS) SENSOR DISPLAY TEST.

Refer to **fig. 2** and **fig. 3**

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### A. Test of HCP display screen and pushbuttons (**fig. 2**)

- (1) Press the "TEST" pushbutton for more than 4 seconds and release it ("TEST" pushbutton is illuminated during the test).
- (2) Check that the following sequence is displayed on the HCP screen:  
NOTE: The screen features four display lines which are activated one after another during the test.  
 Check that all the segments of each line illuminate.
  - adjacent to the "SCALES" pushbutton, the first display line illuminates for 2 seconds, then extinguishes,
  - the "LOC TK" pushbutton and the second display line illuminate for 2 seconds, then extinguish,
  - the "RW ELV" pushbutton and the third display line illuminate for 2 seconds, then extinguish,
  - the "SLOPE" pushbutton, the fourth display line and the "FAULT" light illuminate for 2 seconds, then extinguish.
- (3) Press the "TEST" pushbutton to stop the test ("TEST" pushbutton extinguishes).
- (4) Check that the initial display is shown on the HCP screen:
  - "SCALES" = "ON",
  - "LOC TK" = value present at de-energization followed by symbols "T" and "?",
  - "RW ELV" = "---" followed by symbols "FT" and "?",
  - "SLOPE" = value present at de-energization followed by symbols "°" and "?".
- (5) Enter or modify one of the values displayed on the HCP screen as follows:
  - Press the "LOC TK", "RW ELV" or "SLOPE" pushbutton, depending on the value to be modified. Check that the pushbutton illuminates,
  - Key in the value using the HCP keypad,
  - Press "ENTER":
    - Check that the pushbutton extinguishes.
    - Check that the new value is displayed without the "?" character.

### B. Global testing of HGS system

- (1) Briefly press the "TEST" pushbutton (< 4 seconds)

Check that:

- on HCP (**728RA**):
  - the "TEST" pushbutton is illuminated,
  - the "FAULT" light illuminates for approx. 4 seconds, then extinguishes,
  - the word "TEST" is displayed on the "SCALES" line.

NOTE: Fault(s) code(s) is (are) displayed when the "LOCK TK" pushbutton is illuminated.  
 Press "CLR" to clear the displayed fault codes.

- on the combiner, the HGS system test menu is displayed as follows:

HGS TEST MENU  
 A/C ID # 2001

> RECORDED FAULTS

SENSOR DATA

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EXISTING FAULTS

AIRCRAFT IDENTIFICATION

IN SERVICE PERFORMANCE

HGS TEST DISPLAY

<TEST> TO EXIT

- (2) Press the "DIM -" pushbutton on HCP (**728RA**) until the cursor (>) is on the "HGS TEST DISPLAY" line.

NOTE: In test mode, the "BRT +" and "DIM -" pushbuttons on the HCP are used for moving the cursor up or down.

- pressing the "ENTER" pushbutton validates the selection.
- pressing the "CLR" pushbutton calls the list of sensors.

\_\_\_\_\_

IN SERVICE PERFORMANCE

> HGS TEST DISPLAY

- (3) Press the "ENTER" pushbutton on the HCP keypad.
- (4) Check that the word "TEST" is displayed above the aircraft model on the combiner (**fig. 3**).

NOTE: The test display shown is only provided as an example. Depending on A/C configuration, some components cannot be displayed.

The computer fault indicator is displayed in white on the combiner.

- (5) Check that the test display shows information such as:
- flight director messages,
  - autopilot engaged,
  - roll scale pointer,
  - slid/skid indicator,
  - wind direction and speed,
  - "TEST" displayed above the A/C reference symbol,
  - horizon line and pitch graduations visible,
  - heading scale and index,
  - flight path,
  - flight director guidance cue,
  - flight path acceleration,
  - selected airspeed,
  - radio-altimeter value,
  - airspeed scale,
  - airspeed value,
  - barometric altitude scale, selected altitude, barometric altitude setting,
  - vertical speed,

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- digital FMS/DME distance,
  - navigation source,
  - selected source,
  - selected heading,
  - A/C reference symbol.
- (6) Press the "TEST" pushbutton a second time to stop the test.
- Check that the image displayed on the combiner is an operational image ("SCALES ON" display).  
NOTE: The word "TEST" is not displayed above the aircraft model.
  - on HCP (**728RA**), check that the "TEST" pushbutton is extinguished. The initial display is shown on the HCP screen.

### C. HGS input sensor test

- (1) Briefly press the "TEST" pushbutton (< 4 seconds). Check that:
- on HCP (**728RA**):
    - the "TEST" pushbutton is illuminated,
    - the "FAULT" light illuminates for approx. 4 seconds, then extinguishes,
    - the word "TEST" is displayed on the "SCALES" line.
- NOTE: Fault(s) code(s) is (are) displayed when the "LOCK TK" pushbutton is illuminated.  
Press "CLR" to clear the displayed fault codes.
- the HGS system test menu is displayed on the combiner (see Para. 2 A.).
- (2) Press the "DIM-" pushbutton on HCP (**728RA**) until the cursor (>) is on the "SENSOR DATA" line.

```

_____
RECORDED FAULTS

> SENSOR DATA

EXISTING FAULTS
_____
  
```

- (3) Press the "ENTER" pushbutton on the HCP keypad: the combiner displays the list of the input sensors to the HGS system (ADC, IRU, IAC, VOR, TCAS, RA, etc.) and of other discrete inputs.
- (4) For each sensor:
- use the cursor (>) to select the sensor and then press the "ENTER" pushbutton to display the sensor data,
  - check the validity of the data transmitted by the sensors,
  - press the "CLR" pushbutton to display the list of sensors.
- (5) Press the "TEST" pushbutton again to stop the test.

## 6. FINAL STEPS

Refer to **fig. 1**

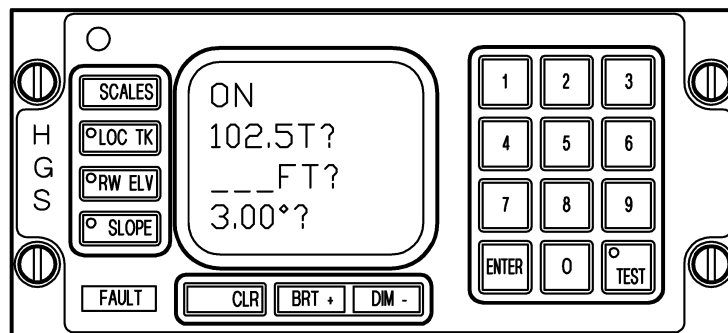
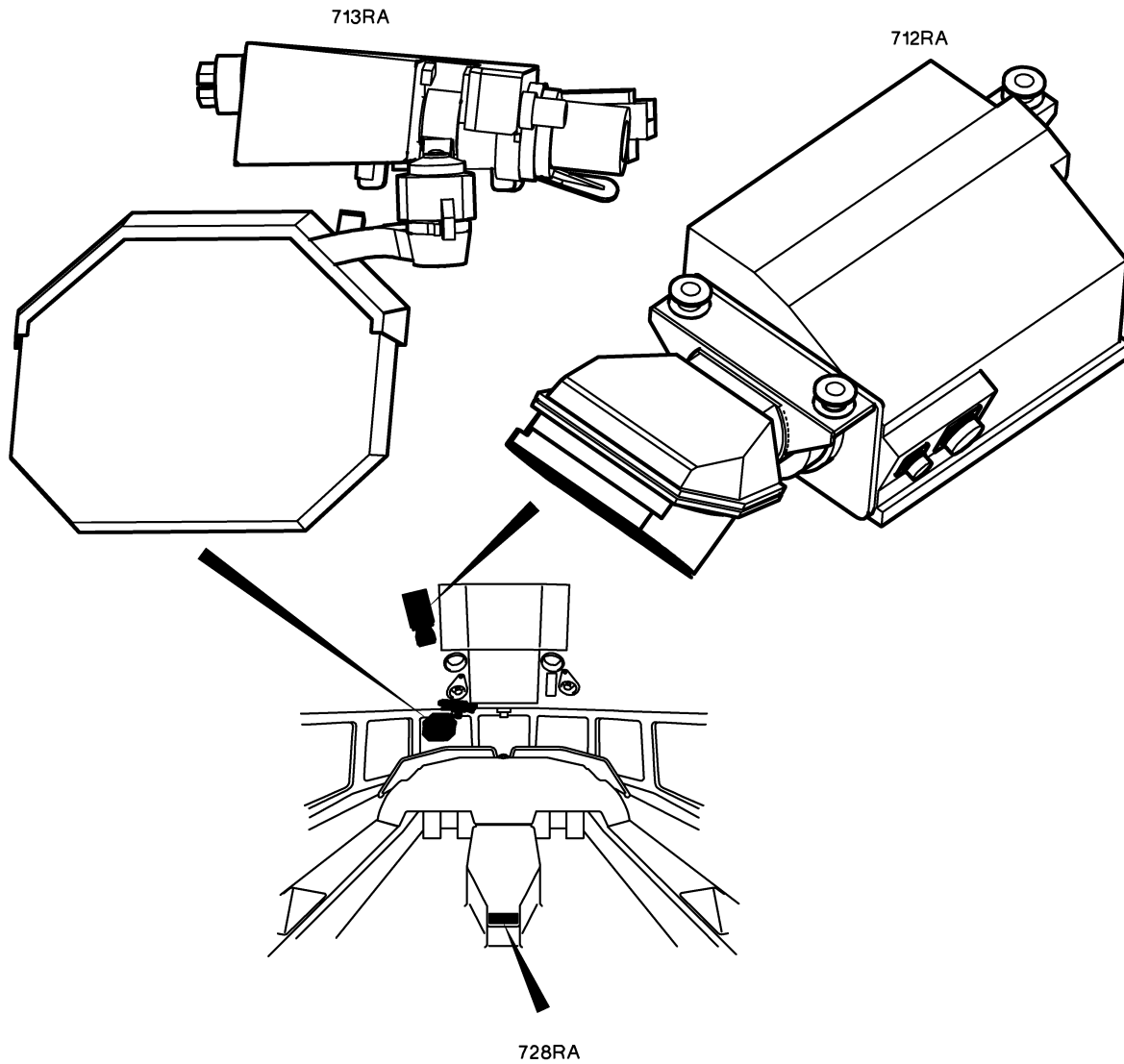
- A. De-energize the aircraft systems (Refer to **TASK 24-00-00-860-801**, paragraph "De-energization with the Electrical Ground Power Unit").

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- B. If necessary, clean combiner ([713RA](#)) and overhead unit ([712RA](#)) (Refer to [TASK 34-31-00-100-801](#)).
- C. Cover combiner ([713RA](#)) with the cloth cover.
- D. Rotate combiner ([713RA](#)) to the stowed position.
- E. Lock combiner ([713RA](#)).
- F. Disconnect the electrical ground power unit (Refer to [TASK 24-00-00-860-801](#), paragraph "Disconnection of the Electrical Ground Power Unit").

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**Figure 1: Location of Cockpit Controls**

Effectivity: A/C WITH HGS

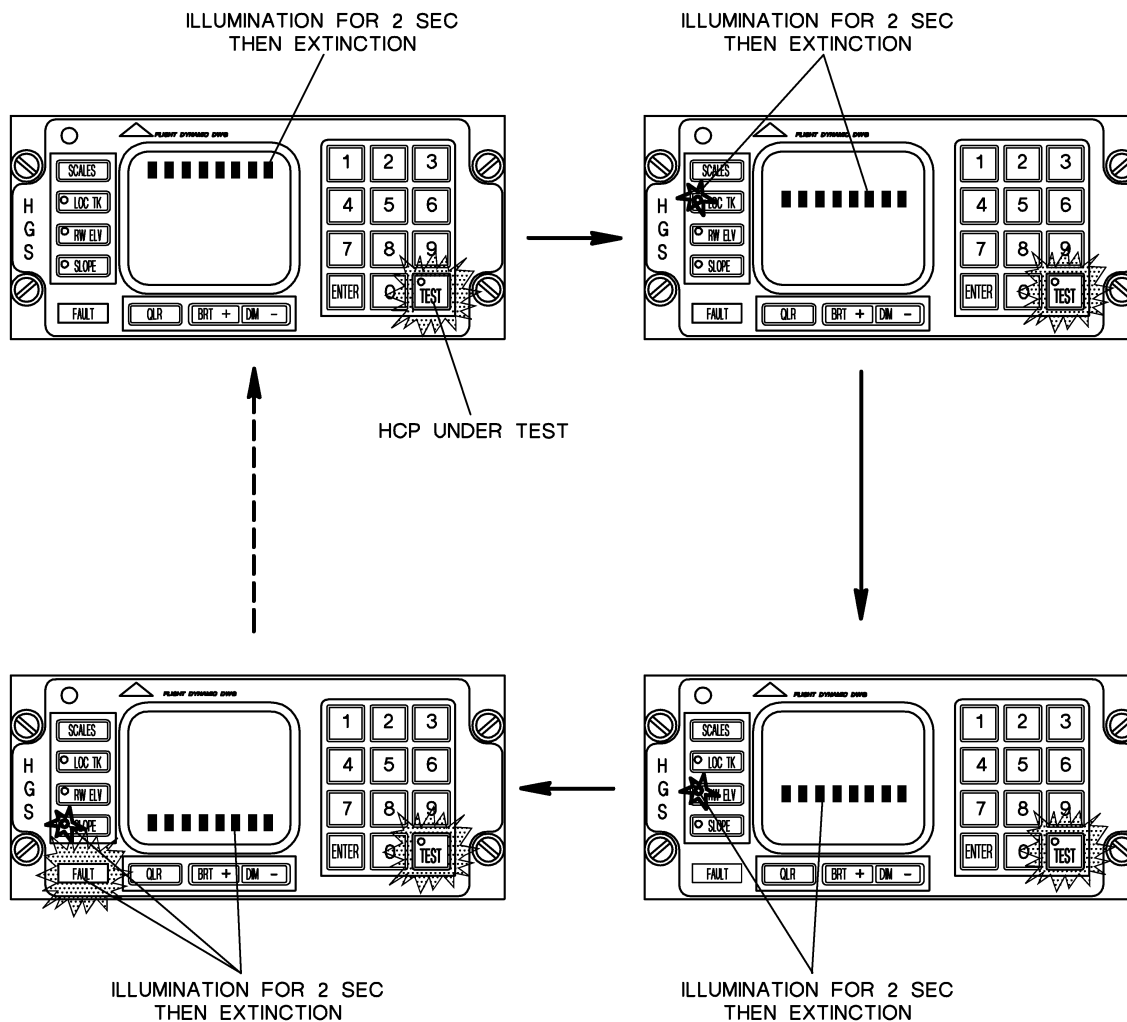
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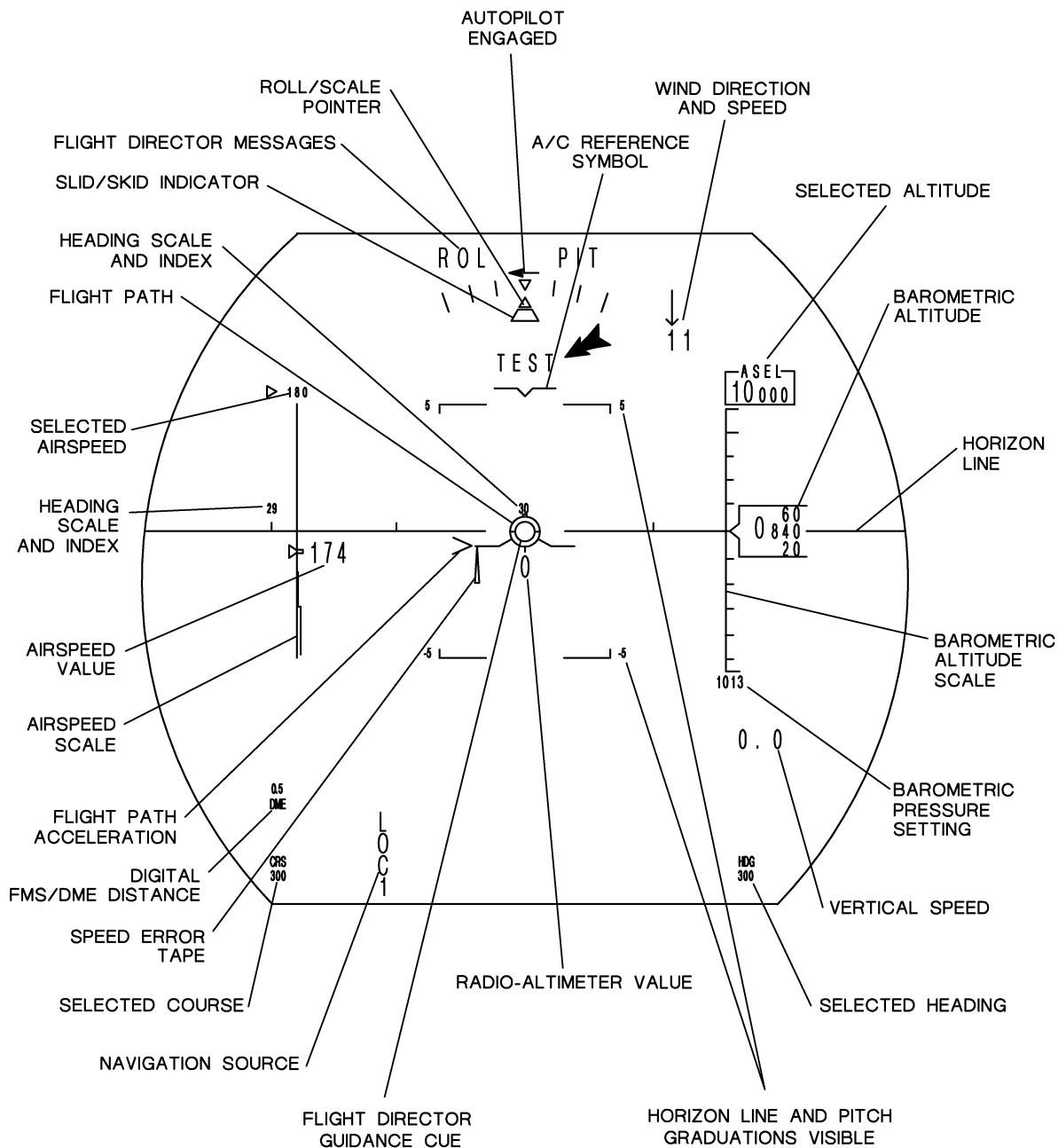


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**Figure 2: HCP Display Test**

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**Figure 3: Example of HGS Test Display**