

FLT SYST

SERVICING PROCEDURES

AP101B-1300-5A3B

FUNCTIONAL CHECKS AND TESTS

Sect 2

HUNTER ALL MARKS

Chap 6

AMENDED TO INCLUDE MK 9 CONTENT

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SP247 (1)
(1 to 2)

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COMPASS SYSTEM TEST. Mk 6, 6A, 7 and 9 aircraft.

SAFETY AND SERVICING NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK
DETAILED ON THIS CARD

TRADE Nav. Inst.	M/HRS	TRADE	M/HRS	ASSOCIATED PROCEDURE CARDS

Special Tools and Equipment.

Nil.

BLOCK 1 NAV. INSTRUMENTS

1. Preparation

Sub-item 1.1 is applicable only to Mk6, 6A and 9 aircraft.

- 1.1 Test set jack
plug lead. Couple between Centre Reading Meter
socket and corrector control box.

Sub-item 1.2 is applicable only to Mk 7 aircraft.

- 1.2 Test set jack
plug lead. Connect between Centre Reading Meter
socket and deviation control panels.

- 1.3 External power supplies. Set to 'ON'.

- 1.4 Corrector lamps. Ensure lit.

- 1.5 Gyro unit.
(i) Synchronize.
(ii) Check indication against E2B
compass.

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SP247 (2)

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Aircraft Ser No:
Date:

COMPASS SYSTEM TEST.

SAFETY AND SERVICING NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK
DETAILED ON THIS CARD

BLOCK 1 NAV. INSTRUMENTS

2 System

- 2.1 Compass card. Displace 7 degrees from synchronized heading.
- 2.2 Centre reading voltmeter. Ensure indicates at least 9V.
- 2.3 Compass card. Ensure time taken to precess from 5 degrees to within $\frac{1}{2}$ degree (2.5V on voltmeter) of synchronized heading does not exceed 3 minutes.
- 2.4 System. Repeat Sub-items 2.1 to 2.3 inclusive in opposite direction.

TRADESMAN		Brief Details of Suspected Defect and SNOW When Applicable		SUPERVISOR		
MAN HRS	INITS & TDM	1	2	3	4	5

BLOCK 2 NAV. INSTRUMENTS

3 General

- Sub-item 3.1 is applicable only to Mk6, 6A and 9 aircraft.
- 3.1 Test set jack plug lead. Remove from corrector control box.
Sub-item 3.2 is applicable only to Mk 7 aircraft.
- 3.2 Test set jack plug lead. Remove from deviation control panels.
- 3.3 External power supplies. Set to 'OFF'.

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<u>HARMONIZATION</u> Applicable only to Mk6, 6A and 9 aircraft.					Aircraft Ser No: Date:			
		SAFETY AND SERVICING NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD.			TRADESMAN	Brief Details of Suspected Defect and SNOW When Applicable	SUPERVISOR	
TRADE FS AF	M/HRS	TRADE W	M/HRS	ASSOCIATED PROCEDURE CARDS SP 63 and 64.	MAN HRS 1	INITS & TDM 2	MAN HRS 4	INITS & TDM 5
<u>Special Tools and Equipment:</u> Collimator Type A 8B/5215. GGS Test Set Mk5 Type 1 8B/4506032. Stop Watch 6B/3822. Multimeter 5QP/1057049.								
BLOCK 1		FLT SYST						
1. <u>General</u>								
1.1 Sighting head.		Disconnect gyro optics plug.						
1.2 Test set type 1.		Using the appropriate connector cables, connect gyro and optics (plugs 3 and 4) to aircraft system.						
1.3 External power supply.		(i) Connect. (ii) Ensure voltage is 28 PLUS OR MINUS 0.5V.						
1.4 GGS master switch.		(i) Set to 'ON'. (ii) Allow 15 minutes for GGS to warm up.						

FLT SYST
SP 250 (2)

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SAFETY AND SERVICING NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK
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BLOCK 1

FLT SYST

2. Type 22 Voltage Regulator Setting

2.1 CU Type 'S' Mk 13S.

- (i) Set dimmer control to fully bright.
- (ii) Ensure fixed and moving graticules are illuminated.

2.2 Test set type 1.

Connect wander leads of multimeter to gyro and optics sockets (A) red (B) black.

2.3 GGS range drum.

Set to 550 yds.

2.4 Type 22 voltage regulator.

Adjust output to 22V on multimeter.

BLOCK 2

FLT SYST

This block is applicable only if introduction of wing span markers is required (GGS Mk 5R) or (GGS Mk 8R) and using Hunter a/c as target.

3. Adjustment

3.1 GGS CU Type 13S.

- (i) Select G1.
- (ii) Adjust brilliance until the display is clear and sharply defined.

3.2 CU Type T1.

Operate to drive the range scale on the sighthead to exactly '2'. (Equivalent to 200 yards).

TRADESMAN		Brief Details of Suspected Defect and SNOW When Applicable		SUPERVISOR	
MAN HRS	INITS & TDM	1	2	MAN HRS	INITS & TDM

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<u>HARMONIZATION</u>		Aircraft Ser No: Date:					
		TRADESMAN		Brief Details of Suspected Defect and SNOW When Applicable		SUPERVISOR	
SAFETY AND SERVICING NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD		MAN HRS 1	INITS & TDM 2	3	MAN HRS 4	INITS & TDM 5	
BLOCK 1		FLT SYST					
3. <u>Adjustment</u> cont.							
3.3 GGS Sighthead Span		<p>(i) Adjust until the outer tips of the diamonds just touch the inner edge of the proximity markers.</p> <p>(ii) Using white ink (HMSO Code 42-38) mark the new range scale setting with a thin line and the identification '34'.</p>					
BLOCK 2		FLT SYST					
4. <u>Type 119 Voltage Regulator Settings</u>							
4.1 Mode selector switch.		Set to 'G1'.					
4.2 Throttle twist grip.		Set range to 550 yds.					
4.3 Test set type 1.		Connect multimeter wander leads to gyro and optics socket (A) red (B) black.					
4.4 Type 119 voltage regulator.		Adjust regulator trimmer until multimeter reads 17.6V.					
4.5 CU Type 'S' Mk 13S.		<p>(i) Set mode selector switch to G2.</p> <p>(ii) Adjust RV4 (Bombs Port) to give 550 yds on range drum.</p> <p>(iii) Adjust RV2 until multimeter reads 18V.</p> <p>(iv) Repeat Sub-item 3.4.</p>					

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HARMONIZATION

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DETAILED ON THIS CARD

BLOCK 1

FLT SYST

5. General

- 5.1 GGS master switch. Set to 'OFF'.
5.2 External power supply. Test set type 1. } Disconnect.
5.3 Sighting head. Reconnect gyro and optics plug.
5.4 External power supply. Reconnect.
5.5 GGS master switch. Set to 'ON'.
5.6 Sighting head. Carry out ranging checks.
5.7 GGS master switch. Set to 'OFF'.
5.8 External power supply. Disconnect.

BLOCK 2

AIRFRAME

6. Preparation

- 6.1 Aircraft. (i) Raise on jacks sufficiently to prevent rocking.
(ii) Ensure aircraft level laterally.

Aircraft Ser No:
Date:

TRADESMAN

MAN
HRS
1

INITS
& TDM
2

Brief Details of
Suspected Defect and
SNOW
When Applicable
3

SUPERVISOR
MAN
HRS
4

INITS
& TDM
5

FLT SYST
SP 250 (5)

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Date:

HARMONIZATION

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DETAILED ON THIS CARD

BLOCK 1

WEAPONS

7. Preparation

- 7.1 Gun pack. Remove. (SP 63).
7.2 Aircraft sighting bars. Fit across gun package compartment.
7.3 Harmonization board.
 (i) Place 83ft 4ins in front of sighting bars, set to correct pattern.
 (ii) Adjust until sighting points on board coincide with sights on sighting bars.

BLOCK 2

FLT SYST

8. Setting

- 8.1 Armament selector switch. Ensure set to 'SAFE' or 'OFF'.
8.2 External power supply.
 (i) Connect.
 (ii) Switch on.
 (iii) Ensure 28 PLUS OR MINUS 0.5V.
8.3 Gunsight master switch. Set to 'ON'.
8.4 Gunsight. Allow to run for 10 minutes to warm up.
8.5 Mode selector switch. Set to 'GI'.
8.6 Collimator type A.
 (i) Fit to sighting head.
 (ii) Zero to harmonization board spot.
8.7 Throttle twist grip. Set range drum 600 yds.

TRADESMAN
MAN HRS
1

INITS & TDM
2

Brief Details of
Suspected Defect and
SNOW
When Applicable
3

SUPERVISOR
MAN HRS
4

INITS & TDM
5

FLT SYST
SP 250 (6)

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Date:

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BLOCK 1

FLT SYST

8. Setting cont.

8.8 Sighting head and reflector glass.

Adjust to align moving graticules centre spot to correct place on harmonization board.

8.9 Gunsight.

Using flexible adjusters align fixed cross to correct place on harmonization board.

BLOCK 2

FLT SYST

9. Testing

9.1 Throttle twist grip.

Set range drum to 600 yds.

9.2 Collimator type A

Zero to centre spot of moving graticule.

9.3 Throttle twist grip.

Check vertical movement of centre spot.

9.4 Mode selector switch.

Set to 'BOMBS 1'.

9.5 Centre span knob.

Set to 'RP'.

9.6 Moving graticule.

Ensure it has risen 10-15 M/RADS approx. above collimator zero position.

9.7 Moving graticule.

Ensure bottom tip of bottom diamond is at 'six o'clock to centre spot.

9.8 Mode selector switch.

Set to B2.

TRADESMAN		Brief Details of Suspected Defect and SNOW When Applicable		SUPERVISOR	
MAN HRS	INITS & TDM	1	2	MAN HRS	INITS & TDM

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				TRADESMAN	Brief Details of Suspected Defect and SNOW When Applicable	SUPERVISOR	
		MAN HRS	INITS & TDM	1	2	MAN HRS	INITS & TDM
		SAFETY AND SERVICING NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD					
BLOCK 1		FLT SYST					
9. <u>Testing</u> cont.							
9.9 Moving graticule.		Ensure drops to -55 M/RADS approx. below collimator zero position.					
NB:		With collimator removed, centre pipper should be level with lowest point of ring of fixed graticule.					
BLOCK 2		FLT SYST					
NB:		This block is only applicable if Sub-item 9.9 is not within limits.					
10. <u>Adjustment</u>							
10.1 CU Type BL Mk 2S.		Adjust RV 'S' until moving graticule centre spots align with -55 M/RADS below collimator zero position.					
BLOCK 3		FLT SYST					
11. <u>Checking</u>							
11.1 Bombs switch.		Ensure 'OFF'.					
11.2 Rocket switch.		Set to 'ON'.					
11.3 Armament safety break.		Ensure 'IN'.					
11.4 CU Type BL Mk 2S.		Set to 1½ second sensitivity.					
11.5 Mode selector switch.		Set to 'RP'.					

FLT SYST
SP 250 (8)

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HARMONIZATION

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BLOCK 1

FLT SYST

11. Checking cont.

11.6 Moving graticule.

Ensure drops more than 24 M/RADS of
collimator zero position.

11.7 Camera button.

11.8 Stop watch start button. }

Press simultaneously.

11.9 Moving graticule centres
spot.

Ensure pipper rises to 24 M/RADS (Mk 6A
and 9 aircraft) or 20.8 M/RADS (Mk 6
aircraft) below collimator zero position
in 3.5 seconds approximately.

11.10 CU Type BL Mk 2S.

- (i) Adjust RV3 as necessary to remove
any azimuth drift present at
Sub-item 11.9.
- (ii) Repeat Sub-item 11.9.

BLOCK 2

FLT SYST

NB: This block is only applicable if Sub-item 11.9 is not attained.

12. Adjustment

12.1 Rocket switch.

Set to 'OFF'.

12.2 CU Type BL Mk 2S.

Adjust RV 'M'.

12.3 Checking.

Repeat item 11.

TRADESMAN	Brief Details of Suspected Defect and SNOW When Applicable			SUPERVISOR
	MAN HRS 1	INITS & TDM 2	3	

FLT SYST
SP 250 (9)

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Date:

HARMONIZATION

SAFETY AND SERVICING NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK
DETAILED ON THIS CARD

BLOCK 1

FLT SYST

13. Checking

- | | |
|------------------------------------|------------------------------------|
| 13.1 Rocket master switch. | Set to 'OFF'. |
| 13.2 Moving graticule centre spot. | Ensure drops a further 5-6 M/RADS. |
| 13.3 GGS radar lights test button. | Press. |
| 13.4 GGS radar light. | Ensure illuminated. |
| 13.5 Collimator type A. | Remove. |
| 13.6 GGS master switch. | Set to 'OFF'. |
| 13.7 Armament safety break. | Disconnect. |
| 13.8 External power supply. | Disconnect. |

BLOCK 2

WEAPONS

14. Completion

- | | |
|------------------------------|-----------------|
| 14.1 Harmonization board. | Remove. |
| 14.2 Aircraft sighting bars. | Remove. |
| 14.3 Aircraft gun pack. | Refit. (SP 64). |

TRADESMAN	Brief Details of Suspected Defect and SNOW When Applicable			SUPERVISOR				
	MAN HRS	INITS & TDM	1	2	3	MAN HRS	INITS & TDM	4

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BLOCK 1

AIRFRAME

15. Completion

Lower of jacks.

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