

PART 1

SECTION 5 — RECORDERS

CHAPTER 2 — TELFORD RECORDER CAMERA

(Completely revised at AL3)

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Introduction

1. A Telford Type 1007/6 gunsight recorder camera may be fitted to the LFS to record pictures of the LFS display and the field of vision ahead of the aircraft. The camera has a capacity for 50 feet of standard 16 mm film and operates at a film speed of 16 frames per second at an exposure of 1/250 second.

Description

2. The recorder has a folding mounting bracket on each side by which it is fitted to mounting blocks on the LFS (see Fig 1). At the top of the recorder body there is an adjustable lens assembly, covered by a fixed mirror assembly. The images of the target and the LFS display are superimposed on the mirror and photographed via the lens. The recorder body is divided into a film compartment and an operating mechanism compartment.

3. *Lens.* A one inch focal length f1.9 is fitted, with a manually adjustable iris with click stops down to f16 focussed at infinity. The camera field of view is 22° vertically and 16° in azimuth.

4. *Film Compartment.* The film is fitted to a feed spindle and fed through a film tension arm, a guide block, a spring-loaded pressure plate and a guide-way to a take-up spindle (see Fig 2). The pressure plate holds the film firmly in the optical plane against an aperture plate. A spring-loaded arm is positioned against the film feed spool and is directly connected to a film contents indicator which is viewed through a window in the recorder case.

5. *Operating Mechanism.* A governed DC motor drives the film take-up gear, two shutters and the film claw movement via an escapement mechanism activated by a DC solenoid.

Fitting and Removal

6. To fit the recorder to the sight, knurled nuts on each side of the LFS are slackened and the slots on the rear of the camera mounting brackets are engaged with the aft studs on the mounting blocks. The camera is then pivoted forward to engage the forward slots with the forward studs. After pulling the camera as far aft as possible the knurled nuts are tightened and the camera plug is connected to the socket: in the Lightning F3 and F6 this socket is above the standby DI on the windscreen left side member; in the Lightning T5 it is on top of the instrument panel shroud. When removing the camera from the LFS, disconnect the camera plug first to obviate strain on the lead cable.

WARNING 1: Fitting the camera normally causes the LFS glass to be deflected down slightly. It is essential that the glass is returned to its correct position and a positive check made that it is fully up after fitting the Telford Recorder Camera.

WARNING 2: The E2B standby compass is inaccurate and unusable when the camera is fitted to the LFS.

Stowage

7. In the Lightning T5 aircraft only, a zip-fastened stowage bag on the side panel of the starboard console is provided for the camera when not in use. The mounting brackets are folded under the camera before stowing. In Lightning F3 and F6 aircraft there

is no provision for stowage and the Telford Recorder Camera should remain fitted throughout the flight.

8. When stowing the camera, in the T5, it is advisable to present the camera/mounting plate assembly to the stowage case with the folded mounting plates to the rear.

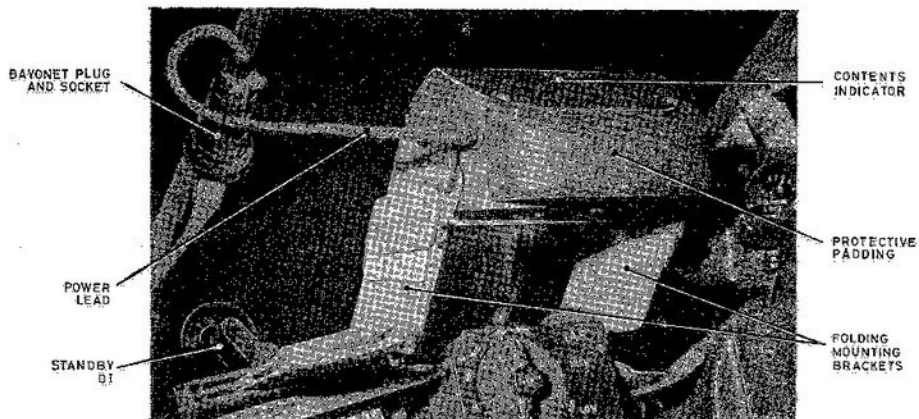
Power Supplies

9. Camera DC power supplies are made available through the CAMERA MASTER switch. The camera will run with the CAMERA MASTER switch ON and:

- a. The CAMera button pressed.
- b. The trigger pressed (except in a GW radar attack-ie GW selected on the MAS and CRT selected on the LFS/CRT switch).

Controls and Indicators

10. The controls and indicators comprise a CAMERA MASTER switch positioned on the starboard console in the Lightning F3 and F6 (panel A1 in the Lightning T5) and a film contents indicator which has three lines denoting F (full), half-full and E (empty), on the recorder case. Associated controls which are required in the operation of the camera are the trigger, the CAMera button and, as in para 8 b above, the MAS and the LFS/CRT switch.



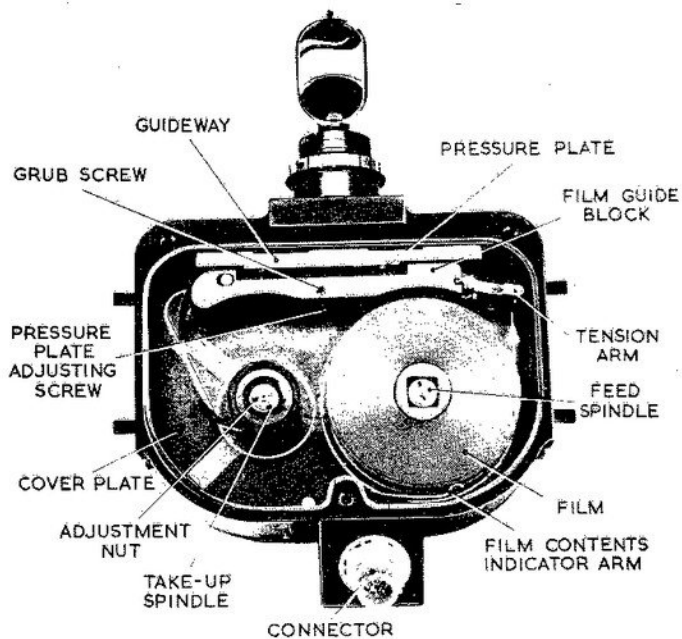
VIEW FROM INSIDE COCKPIT



TOP VIEW THROUGH FRONT WINDSCREEN

1-5-2 Fig 1 Recorder and Mounting Bracket

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1-5-2 Fig 2 Film Compartment

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