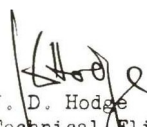




Ref 1988/02A/J  
Date Sept. 19, 1957  
To S. E. Harper - Chief Experimental Engineer  
From J. D. Hodge - Technical Flight Test Co-ordinator  
Subject ARROW 1 TELEMETRY REQUIRED FOR INITIAL FLIGHTS

Herewith a list of the parameters required to be telemetred throughout the initial flights of the Arrow 1, together with their priority order. The required frequency response (in cycles/sec) is shown as brackets following each 'continuous' parameter.

DM/bb

  
J. D. Hodge  
Technical Flight  
Test Co-ordinator

Stability and Control

- |     |                                     |      |
|-----|-------------------------------------|------|
| 3.  | Lateral acceleration                | (10) |
| 28. | Port aileron angular acceleration   | (25) |
| 30. | Port elevator damper servo position | (25) |
| 31. | Port aileron damper servo position  | (25) |
| 29. | Rudder damper servo position        | (25) |
| 5.  | Rate of pitch                       | (10) |

Structural Integrity

- 20-24 Five vibration pick-up accelerometers defined in CF105  
Instrumentation - Issue 7 as numbers 22, 34, 36, 61 and 67  
(capable of recording frequencies up to 60 cycles/sec)

COMMUTATED

Stability and Control

- |     |   |
|-----|---|
| 1.  | Aircraft static pressure (0-2160 lb/ft <sup>2</sup> ) |
| 2.  | Differential pressure (0-1440 lb/ft <sup>2</sup> )    |
| 7.  | Rate of yaw   |
| 8.  | Rate of Roll  |
| 10. | Angle of attack                                       |
| 9.  | Angle of sideslip                                     |
| 4.  | Normal acceleration                                   |
| 6.  | Port elevator angle                                   |
| 27. | Port aileron angle                                    |
| 26. | Rudder angle  |

Flying Control Hydraulics

15. Port engine pump inlet temperature.

Engine Installation

- |       |   |                           |
|-------|---|---------------------------|
| 16.   | Oil temperature at starboard engine inlet                             |                           |
| 17.   | Fuel temperature at inlet to starboard engine burner                  |                           |
| 12.   | Centre rear mount, station 711.                                       |                           |
| 13.   | Top of shroud inner flange station 803                                |                           |
| 14.   | Top flange of I-beam on $\Phi$ through heat exchangers at station 592 | } Structural Temperatures |
| 14(a) | Top flange of former directly below firewall station 663              |                           |
| 32.   | Gills shut indication lights, starboard (2 per engine)                |                           |

Fuel System

- |     |                                    |
|-----|------------------------------------|
| 18. | Fuel contents in tank No. 5. Port. |
| 19. | Fuel contents in tank No. 5. Stbd. |

Utility Hydraulics

25. Pump inlet temperature

Air Conditioning

11. Turbine R.P.M