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**DARKSTAR FLIGHT TEST DATA**

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Table B.1 contains information on the DarkStar flight test program. Data include sortie numbers, sortie dates, flight hours, objectives, results of the mission, and additional comments regarding significant events during the test. These data were used to create the charts used in Chapter Three.

The data in the table were derived from the flash reports and quick-look reports that documented the results of each sortie.

**Table B.1**  
**DarkStar Flight Test Data**

| Sortie Number | Date    | Air Vehicle | Official Sortie Designation | Flight Time (hours) | Cumulative Flight Hours | Phase | Objective                             | Results            | Comments  |
|---------------|---------|-------------|-----------------------------|---------------------|-------------------------|-------|---------------------------------------|--------------------|---|
| 1             | 3/29/96 | AV01        |                             |                     |                         | II    | Airworthiness, instrument calibration |                    | "Wheelbarrowing" down runway; discrepancy between model predictions and flight test data. |
| 2             | 4/22/96 | AV01        |                             |                     |                         | II    | Airworthiness, instrument calibration | Objectives not met | CRASH.  |
| 3             | 6/29/98 | AV02        | 696 F2-1                    | 0.73                | 0.73                    | II    | Airworthiness, instrument calibration | Objectives met     | Oscillation and climb rate problems.  |

Table B.1—continued

| Sortie Number | Date     | Air Vehicle | Official Sortie Designation | Flight Time (hours) | Cumulative   |              | Phase | Objective   | Results                  | Comments  |
|---------------|----------|-------------|-----------------------------|---------------------|--------------|--------------|-------|---|--------------------------|---|
|               |          |             |                             |                     | Flight Hours | Flight Hours |       |   |                          |   |
| 4             | 9/13/98  | AV02        | 696 F2-2                    | 0.77                | 1.50         |              | II    | Pitch oscillation investigation   | Objectives met           | Wing loads near limit during flight and landing; brake pulsing; climb rate problem; oscillation better. |
| 5             | 9/30/98  | AV02        | 696 F2-3                    | 0.77                | 2.26         |              | II    | Mission replan demonstration; fleet SATCOM demonstration; flight envelope expansion | Objectives not met       | Oscillation continued; mission abort decision after fault message received on replan execute command.   |
| 6             | 10/27/98 | AV02        | 696 F2-4                    | 1.17                | 3.43         |              | II    | Fleet SATCOM demonstration; envelope expansion                                      | Objectives partially met | Initial climb rate still problem.   |

Table B.1—continued

| Sortie Number | Date    | Air Vehicle | Official Sortie Designation | Flight Time (hours) | Cumulative Flight Hours | Phase | Objective          | Results            | Comments  |
|---------------|---------|-------------|-----------------------------|---------------------|-------------------------|-------|--------------------|--------------------|---|
| 7             | 1/9/99  | AV02        | 696 F2-5                    | 2.63                | 6.06                    | II    | Envelope expansion | Objectives not met | Brake system continued to fail; climb rate; aircraft kept reaching flight limits on attempted envelope expansion tests; flight termination signal tested on ground due to detection of spurious signal from elsewhere on range. |
| 8             | 1/29/99 | AV02        | 696 F2-6                    | n/a                 | n/a                     | II    | n/a                | n/a                | Stop work order/program termination.  |

SOURCE: HAE UAV JPO flash reports, quick-look reports, and flight test summary data charts.