INTEGRATION OF THE BREADBOARD TMPSU WITH THE EOB-2 AT MSSL MAY 1996

1. Aims of the Integration

1.1 To demonstrate that the breadboard(b/b) TMPSU operates in stand alone mode, using its own EGSE.

1.2 To integrate the b/b TMPSU with the heaters and the filter wheel.

1.3 To integrate the b/b TMPSU with the ICB and drive the heaters and the filter wheel with commands from the ICB.

1.4 To integrate the b/b TMPSU with the EOB-2 camera head and generate an acceptable picture commanded by the ICB.

2. Activities **Duration**

2.1 Re-perform the acceptance test at MSSL, as a stand alone test, using Sparnex EGSE. MSSL will provide any necessary **standard** test equipment, for example bench power supplies, oscilloscopes, DVMs etc.
This will demonstrate that the TMPSU still works at MSSL, as it did prior to being shipped from Belgium. It will also act as a baseline test that can be re-run in the case of any uncertainty throughout the course of the integration. **2 days**

2.2 Connect the TMPSU to the dummy heaters (maximum, minimum and average loads) and switch them on and off using the Sparnex EGSE. **½ day**

2.3 Connect the TMPSU to a dummy filter wheel load and confirm that its operation looks satisfactory. Then connect it to a filter wheel and demonstrate that the filter wheel can be driven to its blank position (coarse centre) using the Sparnex EGSE. **½ day**

2.4 Connect the TMPSU to the MSSL ICB:
- 2.4.1 Confirm that commands can be made to obtain known currents in the secondary voltages.
- 2.4.2 Check that the coarse sensor can be read.
- 2.4.3 Drive the filter wheel using the coarse sensor only.
- 2.4.4 Drive the filter wheel using both the coarse and fine sensors. **3 days**

2.5 Re-check the TMPSU outputs. Then connect to the Camera Head.
Verify the basic Camera Head operation using the Sparnex EGSE controlling the TMPSU.
Connect to the ICB interface and verify the basic Camera Head operation.
Leave in a state suitable for detailed performance tests. **2 days**

2.6 Tidy up and hold a review meeting. **½ day**

Total 8½days

XMM Optical Monitor

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