

Monthly Progress Report
SPIRE Test Facility and Scientific Support

Contract Number: 9F007-020251/001/SR
Prepared By: J.K. Taylor

Date: 18 Nov 2002
Period: October 2002

Part 1

1. Is the project on schedule? **Yes.**
2. Is the project within budget? **Yes.**
3. Is the project free of any areas of concern in which the assistance or guidance of Canada may be required? **Yes.**

Part 2

Task 3.1: Provide SPIRE Test Facility FTS

- Optical beam splitter mount design and CAD work continued. Potential mount materials were identified, reviewed, and a suitable candidate was identified. Beam splitter mount dimensions were confirmed.
- CRC checksum issues were discussed with Ian Schofield (ULETH).
- CRC checksum issues were forwarded to Ken King (RAL), and the questions were resolved.
- A travel report and minutes of meetings for the previous trip to the UK (David Naylor, Ian Schofield, Joe Taylor, 13 – 21 Sept 2002) were submitted to Brenda Whitten (PWGSC) and Victor Zilinskas (CSA).
- The first draft of the Test Facility FTS Data ICD was reviewed and necessary revisions were completed.
- Time synchronization between the Test Facility FTS and the CDMS will be an issue. Methods of computer time synchronization were investigated. Computer bus based synchronization was identified as the only solution that would satisfy timing requirements. Two vendors of GPS/IRIG PCI bus based cards were contacted for product and pricing information.
- Joe Taylor was in Lethbridge 22 – 25 October. During his stay SPIRE managerial, engineering and technical issues were discussed with members of the ULETH SPIRE group.
- The CSA – ULETH contract (contract no. 9F007-020251/001/ST) was reviewed. Questions were forwarded to Brenda Whitten (PWGSC) and Victor Zilinskas (CSA).
- Development of a work package structure for the ULETH SPIRE project was initiated. Project expense reports and schedule directly reference these packages. Key work packages and tasks therein were defined in detail.

- Spot diagram and energy analysis of potential Test Facility FTS mirrors was begun.
- Development of the optical and mechanical specifications for the Test Facility FTS continued.
- The linear stage for the FTS moving mirror was specified, and a suitable commercially available unit from Aerotech was identified and ordered.

Task 3.2: Provide SPIRE Data Analysis Software

- Nothing to report.

Task 3.3: Canadian SPIRE Team Support

- Nothing to report.

Task 3.4: SPIRE ITT and ICC Support

- Nothing to report.