Enclosure 2: Definitions For Items To Be Included In The Exhibits

Project Management includes items such as labor, materials and other costs associated with managing the LDCM system; resources such as workforce, financial management and schedule management; and safety and mission assurance. This should include all efforts associated with project level planning and directing of prime and subcontractor efforts and interactions.

Instruments includes items associated with the design, development, fabrication, hardware, software, launch support, on-orbit checkout and activation and documentation required for the scientific instruments. Costs incurred for integration of the instruments to the spacecraft are included in the Observatory Integration and Test element (see below.)

Spacecraft includes items associated with the design, development, fabrication, hardware, software, launch support, on-orbit checkout and activation and documentation required for the spacecraft. Costs for integration and test are included in the Observatory Integration and Test element (see below.)

Observatory Integration and Test includes items such as labor, materials and other costs associated with integrating the observatory subsystems, benchmarking observatory performance, qualification of the observatory, design and analysis of procedures, systems test and evaluation, and documentation and analysis of test results.

Ground System Development includes items such as engineering telemetry and science data acquisition, transmission, processing and storage; design and development of the ground system; integrating the flight and ground data system and performing interface and end-to-end tests; documenting and analyzing test results.

System Engineering includes items associated with ensuring the technical performance of the mission components and overall system during development, launch and orbit checkout and activation. It is the project-level engineering required to ensure that all observatory functions properly achieve system requirements. Examples are engineering trade studies, review and evaluation of preliminary and detailed designs, performance of risk assessments, review of test plans, procedures and results, and to ensure that the electrical, mechanical and thermal performance specifications and interfaces are achieved.

Calibration/Validation/Algorithms includes items associated with calibrating and validating instruments and data as well as items associated with developing and implementing algorithms.

Science includes items associated with interpreting and understanding data received from the LDCM system and supporting the LDCM project scientist.

Launch Services includes items such as launch vehicle, spacecraft-to-launch vehicle integration, placement of observatory into designated orbit, analysis, post-flight mission data evaluation, payload processing and mission unique hardware.

Operations and Data Processing includes items such as mission operations center, flight operations team, flight dynamics support and data processing, archive and distribution as

well as activities required to plan and execute the science objectives, including observatory navigation, control, pointing, and health monitoring.

<u>Insurance</u> includes items such as launch service, commissioning and on-orbit costs associated with insuring the spacecraft, instruments and launch service through the on-orbit operations period.

<u>Interest Expense</u> includes items such as the cost associated with debt proceeds.

<u>Debt Servicing</u> includes items such as the cost of retiring long term debt needed for mission fulfillment.

<u>Marketing Expense</u> includes items such as the cost associated with a sales force required to sell data and data products.