

GODDARD SPACE FLIGHT CENTER—FUNCTIONAL DESCRIPTION OF LABORATORY MISSION AND THE SUPPORT SERVICES TO BE PROVIDED BY THE CONTRACTOR

Organization and contractor providing support	Functional description	Description of support services to be provided by contractor
Office of the Assistant Director for Technology: Spacecraft Integration and Sound- ing Rocket Division, Fairchild- Hiller Corp.	Provides the Center with project management, engineering, engineering development, and integration of spacecraft, satellites, space probes, and sounding rockets from project initiation through launch; vehicle mechanical electrical systems, and the development thereof, in support of scientific research projects conducted by means of near vertical support equipment; design and development of electronic subassembly packaging techniques; advanced technical development in the areas of materials, structures, and mechanisms; and a theoretical analysis capability in areas related to the overall division responsibility.	1. The contractor shall supply scientific and engineering services in performance of task assignments by the Goddard Space Flight Center's division. 2. Services shall include electrical and electronic design, testing, drafting, and supporting fabrication services for flight hardware and ground support equipment; mechanical design and drafting services; aircraft structural design and aerodynamic analysis; miscellaneous scientific analyses and laboratory equipment design.
Systems Division, Melpar, Inc.	Provides the Center with a systems analysis, design, and development capability for present and future project implementation. Provides a consolidated systems capability in the areas of spacecraft systems engineering, stabilization and control systems, auxiliary propulsion, spacecraft design and electronic information systems design. Conducts in-house and contract R. & D. on materials for space use. Will provide a supporting program of SRT for applications and scientific spacecraft and a program of advanced research and technology for the purpose of advancing the state of the art in the above listed disciplines.	1. See 1 above. 2. Services shall include electrical electromechanical design, testing, drafting, and supporting fabrication services for conceptual and prototype models of research and development hardware and special equipment and facilities; mechanical design and drafting services; miscellaneous scientific analysis and laboratory equipment design and testing; other technical services.
Spacecraft Technology Division, Electro-Mechanical Research, Inc.	Provides a capability for and conducts applied research in spacecraft power systems technology and electronic and thermal systems design and development for scientific satellites and space probes. Provides specialized equipment in the field of spacecraft technology. The programs involved include design and development of telemetry encoders, power conversion equipment, space-borne information processing devices, flight equipment for ground communication, and other auxiliary or associated activities. Provides technical assistance and advice to NASA contractors and others in similar activities.	1. See 1 above. 2. Services shall include electrical and electronic design, testing, drafting, and supporting fabrication services for flight hardware ground support equipment and R. & D. hardware; mechanical design and drafting services; miscellaneous scientific analysis and laboratory equipment design.
Office of the Assistant Director for Space Studies: Laboratory for Atmospheric and Biological Sciences, Consultants & Designers, Ltd.	Plans, directs, coordinates, and conducts comprehensive research programs in the dynamics, structure, and physics of planetary atmospheres and in the field of bioscience. Conceives, designs, develops, and implements unique optical, electronic, and mechanical techniques required for the in situ and remote exploration of planetary atmospheres and biological phenomena. Provides the complete analysis of resulting experimental data. Interprets the data from experiments to enhance our understanding of the physical, chemical, and biological processes occurring in the atmosphere and at its boundary with planetary surfaces and interplanetary space. Also provides consideration of the practical application of these results to such problems as interaction of launch vehicles and spacecraft with the atmospheric environment, the acquisition of atmospheric observations for meteorological operations, and the biological sterilization of planetary probes.	1. See 1 above. 2. Services shall include electrical and electronic design, testing, drafting, and supporting fabrication services for flight hardware, ground support equipment, and research and development hardware; mechanical design and drafting services; aircraft structural design and aerodynamic analysis; miscellaneous scientific analysis and laboratory equipment design.
Laboratory for Theoretical Studies, Melpar, Inc.	Conducts a broad program of research covering all phases of theoretical physics associated with the exploration of space. Performs fundamental research in the fields of the planetary sciences, astronomy, plasma physics and energetic particles and magnetic fields in space; supports the NASA lunar program by conducting astrophysical studies. Provides support to other NASA activities in the space sciences by providing criticism of theoretical and experimental projects in the space sciences; by suggesting new fields of research; and by assisting the experimental groups in the interpretation of current results and the planning of new projects.	1. See 1 above. 2. Services shall include miscellaneous scientific analysis and laboratory equipment design.