

utilize wherever possible the resources of private industry, and enables MSF to obtain what might otherwise be the unobtainable services of highly skilled personnel. Contract monitoring from both a technical and management point of view, therefore, constitutes a considerable activity in MSF. Organizations, procedures, guidelines, and techniques for this activity have been developed by the Office of Manned Space Flight, Center Directors, and individual Center divisions.

5.4.1 Scope of Contract Types

The scope of contracted efforts in MSF is broad, running from support keypunching services for Center computation facilities to contracts for the delivery of complex computer based systems. Depending on the nature of the effort, the contract may be of any type, such as incentive, fixed fee, award fee, and so forth. Support contractors may be located on NASA premises or off site. Responsibilities for a particular effort may be divided between several NASA organizations. Contracts may call for the delivery of hardware or software (computer programs) or both.

Each contract in this broad spectrum of requirements requires a tailored approach to achieve effective control. For the purposes of management control, contracts awarded in MSF can be considered generally as one of two broad types: support services contracts or mission support contracts. Support services contracts are those in which a NASA organization obtains the services of a contractor on a level-of-effort basis. Individual tasks are assigned on a task-order basis to contractor personnel working closely with NASA personnel. This type of contract is used when a NASA Center determines it will need a certain amount of manpower support but cannot completely identify the required end items in advance. A specific example is the contract between MSFC and the Computer Sciences Corporation (CSC) in which CSC provides programming and computer operating services to the MSFC computational facility.

A mission support contract is one in which NASA contracts for a particular end item to be used in support of a mission. Requirements for the end items are included as part of the contract; there is usually a separate contractor-managed group set up to perform the task. Formal NASA monitoring by way of reviews, written reports, and acceptance tests characterizes these efforts with minimum day-to-day contact between the NASA users and contractor personnel. The unique technical considerations of the contract make it mandatory in many instances that the techniques used to monitor these efforts be tailored to the individual system. An example of a mission contract is the contract