

5.5.3 Sharing Accomplishments

It is estimated that \$7,321,200 in computer resources were shared in 1965 (see table 5-I). The most significant saving resulted from the use of available computer programs, or parts thereof, in lieu of producing a new program. Several factors indicate that the level of sharing will increase in 1966 and that this trend will continue. For example, the MSC and MSFC computational facilities will be using the same general type computers starting in FY 1967. This will aid greatly the exchange of machine time and computer programs between the two Centers.

As a result of both individual initiative on the part of the Centers and efforts of a Resources Sharing Panel/Bellcomm study, a number of significant innovations have been made to aid further sharing. These are reported in a NASA Document, "Procedures for Computer Program and Telemetry Resource Sharing," October 1966, and include:

(1) The establishment of a program sharing library at MSC — Abstracts, describing computer programs available for sharing in MSF, are produced by the responsible programmers and transmitted to a central librarian. The central librarian disseminates the abstracts to MSF personnel. An interested potential user contacts a local librarian at the programmer's Center to get a copy of the program and its descriptive documentation. The effect of this system is to provide a wider dissemination of information concerning available programs in MSF.

(2) The establishment of a standard form for a computer program abstract — This form is used in the program library as described above; it is also used as the abstract for program documentation and as a header to all program card decks and tapes.

(3) The establishment of guidelines for computer program documentation in the MSF computational facilities — The use of standard documentation techniques will facilitate one Center's using programs developed at another Center.

(4) The establishment of standard computer languages in the computational facilities — FORTRAN IV is standard for scientific and engineering applications; COBOL is standard for business applications. All programmers in the MSF computation facilities must use one of these languages unless technical considerations require otherwise. The use of common language will ease the problem of one Center's running a program written at another Center. This procedure will aid sharing of computer programs between Centers and the use by one Center of available machine time at another Center.