

of communication between slow man and fast computer that has restricted full utilization of these high-speed computers. The industry has made a major effort in the so-called third generation computers to improve that interface. The result is that for less money you get a lot more computation capability. Now, we are converting from our present second generation computer to third generation in phases. And we can phase out the second generation computer only after the third generation system is really completely on stream. Our lack of funds in this area will not allow us to run these parallel operations and could delay the introduction of the third generation computers. We are actually paying more for the older computers with less results, so we would like to make this move now in order to save money. That's the message.

Specifically, fiscal years 1968 and 1969 are actually the conversion periods during which we had planned to continue the second generation computers while phasing into third generation. Although there would be higher additional cost during this temporary period of parallel use, substantial economies in subsequent years could be expected. And the conversion cost would easily be amortized in 1970 and from then on it would be money in the bank.

This chart shows the program facilities in support of that part of the Apollo program that is run out of Marshall Space Flight Center. You see the Huntsville test facilities, and the Mississippi Test Facility, and the Michoud Facility which we are going to visit on Saturday. On the West Coast is Rocketdyne's Canoga Park rocket engine manufacturing facility, with engine testing at nearby Edwards Air Force

MARSHALL SPACE FLIGHT CENTER

THIRD GENERATION COMPUTER SYSTEM

● **Principle**

**Centralized high-speed data processing and storage;
decentralized input - output devices.**

● **Reasons for Change-over**

- **Greater capacity**
- **Improved service to users**
- **Greater economy of total operation**