# SCHEDULE III

## MECHANICAL GROUND SUPPORT EQUIPMENT (MSFC) STATUS

1. M.G.S.E.
   (1) DELIVERED AS 201, 202 AND 203 GROUND SERVICER COOLING UNITS, WATER ACCUMULATORS, CALIPS CONSOLES AND FLOW CONTROL VALVE BOXES. ALL OF THESE ARE SERVICEABLE.

   (2) AS 204 - REFURBISHMENT PROGRAM FOR ALL GROUND SERVICER COOLING UNITS - 85% COMPLETE (AS OF 1 FEB 67).

   (3) ENGINEERING CHANGE PROPOSAL/MODIFICATION KITS ARE BEING DELIVERED ON SCHEDULE.

CHART 25

We look at the manpower involved along with the money we've got—$69 million is involved here, of which $46 million is labor and burden. We are operating a group of roughly 1,000 people. Our contractual coverage ends in the middle of 1968. When we go to a follow-on program, all of these birds will also be launched. We will need a continuation of this work for as long as birds are going to be launched. It will involve, say 550 people for launching, and the number of people in addition to that—say, up to 750—will depend upon the amount of other kinds of engineering work needed by Cape Kennedy.

That completes the program review on our Saturn work—on NAS 8–4016 work. That leaves me about two items that are not NAS 8–4016. One is the Saturn improvement study which we've done for NASA. This was done in two phases which we have finished at a cost of about a half-million dollars. The other is an optical technology study. This picture (see chart 33) shows the bird as we have it today. It is capable of putting about 40,000 pounds in near earth orbit. The next bird in line, George Stoner's Saturn V, has a capability of about seven times that or more, 280,000 to 300,000 pounds in near earth orbit. There isn't anything in between. This is the so called "payload gap." There is an intense interest in a lot of areas on what are some of the best means of filling this payload gap. What