The fifth management action that I might list here, mostly because it represents a case of rapid revision and an addition to some of our major testing facilities, is the cold flow facility. A decision was made to introduce, just before shipment, an additional sequence of pressure checking of the fluid systems. This hadn't been previously planned, but we have adjusted to this. The changes to the facilities have been made and the LM requirements will be met.

made and the LM requirements will be met.

Representative Waggonner. Before we leave this area of management activity, you said that you had been successful in supervision over subcontractors by putting more full-time personnel to work with these subcontractors. Are you, in effect, saying that administrative costs

have risen in the program as a result of that?

Mr. GAVIN. I think that's correct to say, that we have added a net of some 20 people to this operation, but I think the return has far out-

weighed the cost of the 20 people.

Representative Waggonner. Percentagewise, what do you estimate at the outset of this program your top sheet administrative percentage cost to be, as related to the overall cost of the program, and what has

it, in fact, turned out to be?

Mr. GAVIN. According to the way we structured our accounting prior to the change in operations administrative costs in terms of direct labor accounted for less than 4 percent of the total. At the time that we strengthened our program control and subcontractor management, we effectively added less than 20 people which represented a change of approximately 0.2 percent in the total administrative manpower.

I would like to spend just a brief time speaking about the status of the various LM subsystems. The next slide (fig. 34) is a very

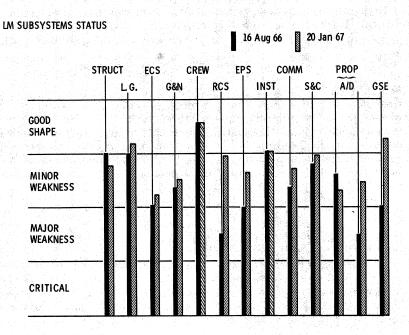


FIGURE 34