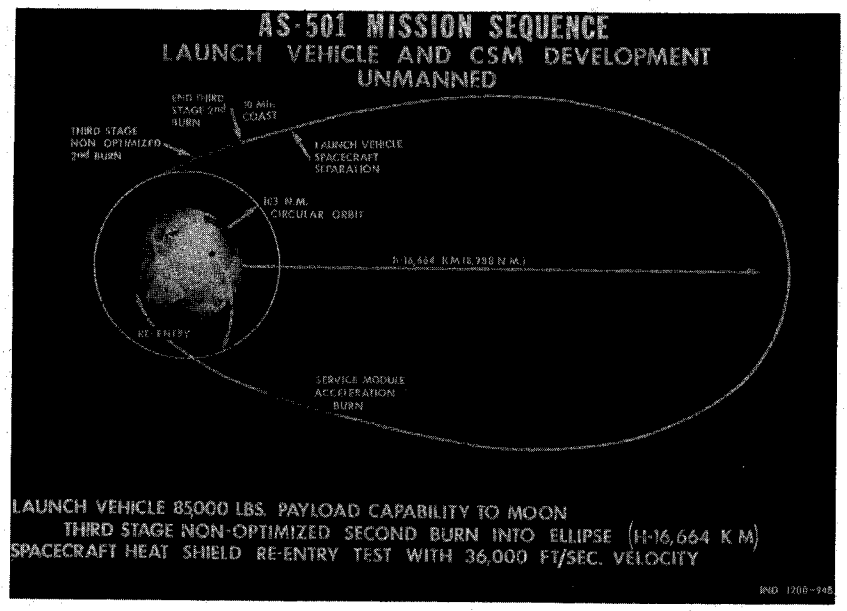

FIGURE 36

AS–503 may or may not be manned; however, the launch vehicle will have a manned capability. This is a lunar mission simulation (fig. 37). After the second burn of the third stage, the command and service module will be transposed and docked with the lunar module. The third stage is separated from the spacecraft. These maneuvers are designed to closely simulate the maneuvers which will be required for the lunar mission and will involve going out into a 4,000-nautical-mile elliptical orbit and returning for reentry.

Similar to the uprated Saturn I, figure 38 is a summary schedule of Saturn V launch vehicle activity in fiscal year 1968. AS–501 is at the Kennedy Space Center. AS–502 will follow very closely. You can see that by the end of fiscal year 1968, we will have delivered to Kennedy Space Center about half of the proposed and authorized Apollo Saturn V hardware. Here again, you can see that during fiscal year 1968, the AS–515 or the last flight article will be well into the manufacturing process for subsequent delivery in late calendar year 1969.

ENGINE PROGRAMS

Let's look at our engine program for a moment (fig. 39). Eight H–1 engines power the first stage of the uprated Saturn I. The J–2 engine is used in a cluster of five on the second stage of the Saturn V. It is used individually on the third stage of Saturn V and the second stage of uprated Saturn I. The F–1 engine is used in a cluster of five which produce 7.5 million pounds of thrust to power the first stage of Saturn V.

I would like to emphasize that our engines have served us extremely well. We have never delayed a launch because of engine fail-