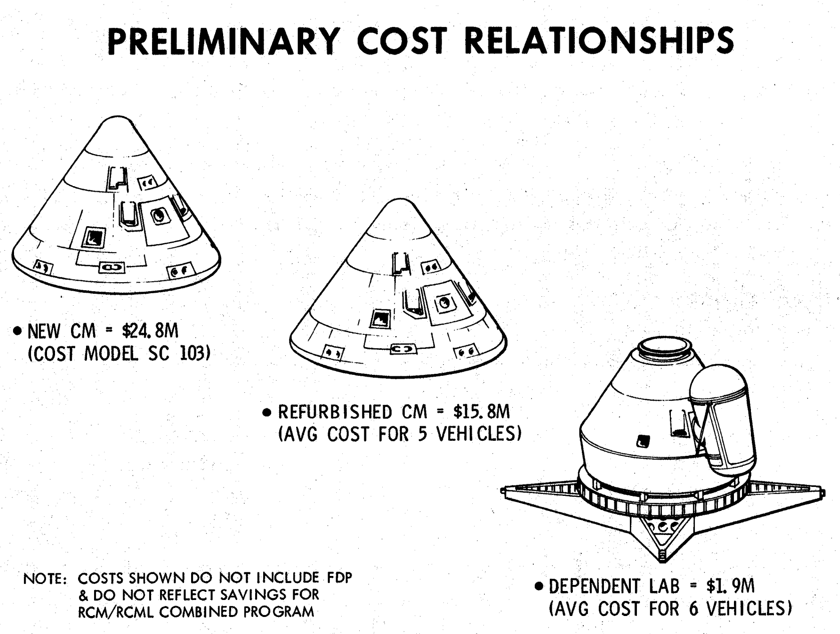

SLIDE 67. PRELIMINARY COST RELATIONSHIPS

will note, both on the one you have and the one I have in my hand, which shows even more severe charring, that we have used actually less than 30 percent of the total ablator. This charred area could simply be machined off and we could use the remainder. The total ablator has been designed for a lunar mission reentry at velocities in the order of 36,000 feet per second. So, if the first flight is an earth orbital mission, we simply machine this off, and fly again without having to buy a new heat shield. One of the problems we did find, however, when we brought these vehicles back into the plant was the problem of corrosion of the inner pressure vessel and the heat shield substructure (slide 68). The inner pressure vessel is obviously airtight and watertight. The outer shell, the heat shield, however, is not a completely sealed structure, and when the vehicle dips into the sea, water penetrates through various openings and into the cavity between the inner and outer vessels, and it begins a corrosion process which would make the vehicle unusable unless we take special action shortly after we pick it out of the sea. Our studies indicate that when we first hoist the command module aboard the recovery ship, certain operations should take place within the first few days prior to its shipment back to Downey, which would prevent corrosion from starting (slide 69). One would be to open up some ports to let the sea water drain out, and then to flush it with deionized water so that the sea water would not have any corrosive effect on exposed surfaces. We have done laboratory studies that show this action would be fully effective. We do have to provide some shipboard postflight equipment in order to provide this capability, or else the vehicle corrosion will begin.