

COST SUMMARY

NAS 8-4016 (SINCE 1 NOV. '65)
WORK UNDER CONTRACT (AS OF 27 JAN. '67)
\$(MILLIONS)

			%
SCHEDULE I	STAGE SUPPLY 1 NOV '68	97.130	49.10
SCHEDULE II	VEHICLE INTEGRATION	15.780	7.99
SCHEDULE III	MECHANICAL GSE (MSFC)	8.390	4.24
SCHEDULE IV	LAUNCH MISSION (SINCE 1 FEB '65)	68.903	34.81
SCHEDULE V	SPECIAL TEST MISSION	.441	.22
SCHEDULE VI	LONG LEAD TIME ITEMS	7.200	3.64
TOTAL		<u>\$197.844</u>	<u>100.0</u>

CHART 3

fied. We had to introduce design changes when we had a buckling failure at 135 percent of the load which wasn't good enough. We had something like 260 channels of information that flowed from this tank to the data center, and the message here, I think, is in the size of this operation. These are very large things. Let's look at our next slide, please. This is the typical buckling failure that occurred in the wall of the tank near the bulkhead at fin No. 4 position for which we had to work out a correction. Let's have the next slide, please. This is a typical test (both reliability and qualification) of a liquid oxygen line. This particular line is filled with liquid nitrogen. It's covered with frost because it's extremely cold. It is mounted on a shaker of 20,000 pound force capacity and it is under the same compressive load that it would have in normal installation.

These jacks reacting against heavy bungee cords are squeezing it with the proper loads. It is subject to sine wave vibrations and ran-