

early in 1967 in time to support AS-502. Qualification of the original set is expected to be completed in mid 1967.

*Launch Complex 39 liquid oxygen propellant system*

A flexible section of an 18-inch liquid oxygen transfer line ruptured during a Pad 39A facility checkout test in August 1966. The tank inner shell dimpled from low internal pressure resulting from the liquid oxygen discharge. The liquid oxygen discharge also displaced piping and caused minor damage to the tank foundations and nearby machinery (fig. 53, MA66-9029).

All damage was repaired and modifications to the system were made to prevent a recurrence. The complete repair, modification, and tank refilling was accomplished in approximately one month.

RELIABILITY AND QUALITY ASSURANCE

Reliability and Quality engineering disciplines in the Apollo program help to provide check and balance between systems engineering and manufacturing activities and to certify that the hardware for a mission is in a state of readiness.

Proven reliability engineering techniques are being applied by Manned Space Flight Reliability and Quality Assurance.

The reliability disciplines previously applied in the program ground test activities had to be modified in the past year to satisfy the new requirements imposed by flight test. A number of reliability engineering disciplines contribute to and culminate with the Flight Readiness Review.

Workmanship and quality are as important, if not more important to the reliability and safety of equipment as is the fundamental design. We believe we have maintained a vigorous and effective quality control and inspection program. The careful disassembly of the AS-204 spacecraft being accomplished under the direction of the AS-204 Review Board provides a unique opportunity to determine whether or not there have been shortcomings in this area. We will follow this disassembly through step by step and take such actions as are indicated if quality and inspection deficiencies are found.

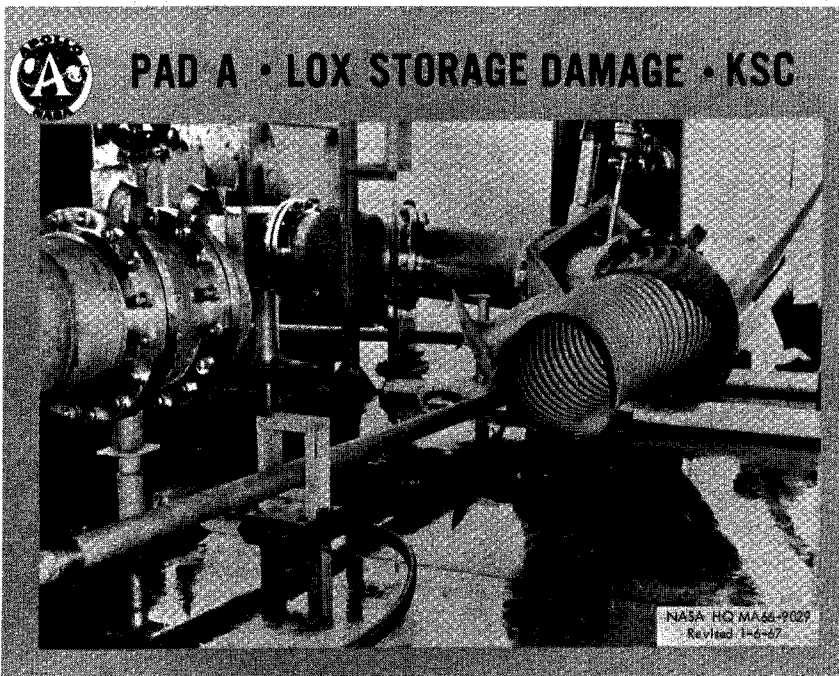


FIGURE 53