FAILURES IN SPACE APPLICATIONS PROGRAM

Mr. Gehrig. Now, I have some questions with respect to the space applications program. As you know, there have been a number of failures recently in the applications satellite program, the Nimbus B and the ATSD, and in, of course, the Intelsats 3 which is somewhat related to this and they were all booster failures, as I understand it.

Do you have any indication at this time that these failures could be

related?

Dr. Naugle. Mr. Gehrig, I would like to make a brief statement on

those failures.

We are naturally quite concerned about the three launch vehicle failures recently experienced by OSSA launch vehicles. We have reviewed the available facts relating to each failure to determine if there are any areas of commonality which might indicate a chronic deficiency in our launch vehicle management, policies, procedures, or practices. The data available to date fails to reveal any obvious commonality. These abnormalities appear to be unassociated failures of launch vehicles with good overall records and excellent records immediately prior to the recent incidents, as indicated in the following summary.

These same vehicles were 97 percent reliable in 1966 with 27 successes in 28 launches and 91 percent reliable in 1967 with 29 successes in 32 launches. To date in 1968, there have been 14 launches completed

with 11 successes or a reliability of 78 percent.

The Delta launch vehicle used in the Intelsat III-A launch held the operational record of 25 consecutive successes prior to the Intelsat III-A launch. Its last failure in 1965 interrupted a string of 22 consecutive

successes. Its overall record is 54 successes in 58 attempts.

The Atlas Centaur, prior to the ATS-4 launch, has been 100 percent successful since it became operational in 1966. All seven successes were for the Surveyor program. Five successful two-burn missions had been achieved by this vehicle prior to the ATS-4 launch, which differed only in the length of coast prior to the second burn.

The NASA Thor Agena mission success record from the Western Test Range was also 100 percent with eight successes in eight attempts. In this ninth attempt, the Thor booster, successful in over 125 NASA and USAF flights, failed due to an error in assembly and checkout of

a yaw rate gyro.

As previously stated, with three different vehicles concerned, there appears no obvious relationship between these failures. We are continuing to examine nontechnical areas such as morale, personnel competence, and quality control for general deterioration or lowering of standards. There is no evidence that any of these concerns has occurred.

Mr. Gehrig. Mr. Chairman, I understand there is a vote and you

must go.

Senator Cannon (now presiding). That is right.

APPLICATIONS SATELLITE PROGRAM

Mr. Gehrig. I have a number of other questions on the applications satellite program, on the space power program, and on adminisstrative operations which I will put in the record with your permission. Senator Cannon. Very good.