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SPACE SHUTTLE STATUS (National Aeronautics
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NOTE TO EDITORS:

SPACE SHUTTLE STATUS

The following summary reviews the status of the Space Shuttle as discussed in the presentation today of John F. Yardley, NASA's Associate Administrator for Space Transportation Systems, to the House Subcommittee on Space Science and Applications.

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A detailed Shuttle program review has been completed to permit an accurate, updated assessment of cost, schedule and performance. The review showed that substantial progress has been made in the program this year.

Highlights include the successful completion of the approach and landing test program of Orbiter 101, Enterprise, which has now been shipped to the Marshall Space Flight Center, Huntsville, Ala., for mated ground vibration tests; recent mission duration test firings of the main engines at the rated power level; and the successful completion of the first phase of the three-engine configuration Main Propulsion Test Program.

With respect to overall Shuttle schedules, the review showed that all program elements could be ready for a Sept. 28, 1979, first manned orbital flight (FMOF) if all planned tests were successful and certain work adjustments were implemented. These adjustments involve the orbiter maneuvering system (OMS) pod and the solid rocket motors (SRM), and could save about a month. September 1979 therefore has been set for the FMOF in an internal target working schedule. If unforeseen problems arise or the tests are not entirely successful, this schedule could be pushed back. However, NASA believes that there is a strong probability of flying the FMOF during CY 1979.

The program review showed the only significant Shuttle problems to be with the main engine and the vehicle's weight.

While the engine development has been slower than desired, tests show that the engine is soundly designed. Substantial progress is being made with the Shuttle engine, and if testing continues to go well the engine could be certified in time for a September 1979 FMOF.

The weight problem does not present any constraint to early flight tests, but does present some problems for both the Galileo mission to Jupiter and certain Air Force missions. However, a weight saving program in the Orbiter and the external tank can satisfy all mission requirements until mid-1984. Performance augmentations being studied would enable the Shuttle to meet the identified requirements of all missions beyond that time.

Additional funding will be required to support the revised FMOF schedule and allow the most expeditious completion of the Shuttle's design, development test and evaluation program. These funding requirements are not due to any single program element, but are due to several items, including the main engines, solid rocket boosters, external tank and thermal protection system. Generally, more work has been found necessary than was originally estimated.

Shuttle development funding required in FY 1979 and FY 1980 exceeds previous plans. Our current estimate of the total Shuttle development costs is 8 - 9 per cent higher than the early estimate of \$5.2 billion (1971 dollars).

The funding situation has been discussed with OMB and will be considered in the process of formulating the FY 1980 NASA budget. NASA is reviewing, together with the Department of Defense, the potential impact if additional Shuttle development funds are not available in FY 1979.

Our preliminary assessments show that the first manned orbital flight would be delayed an additional six to nine months over the above-estimated September date and that delivery of production orbiters would be delayed up to one year.

Copies of Yardley's complete statement prepared for the House subcommittee are available from the NASA newsroom, NASA Headquarters, 400 Maryland Avenue, S.W., Room 6043.