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12 June 1961

Senate (General)
48-589
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MEMORANDUM FOR RECORD

SUBJECT: NASA Authorization Hearings by the Senate Committee on Aeronautical and Space Sciences

1. On June 12, 1961 the Senate Committee on Aeronautical and Space Sciences concluded their hearings on Authorization for NASA '62 Budget by calling Dr. Harold Brown, Director of Defense Research and Engineering, to discuss the Department of Defense space program and its relationship to the national space effort. Dr. Brown was accompanied by Brigadier General David C. Lewis, representing the Army, Rear Admiral K. S. Masterson, representing the Navy, and Major General V. R. Haugen for the Air Force. The hearings were conducted in open session with the following Members present: Chairman Kerr, Senators Stennis, Young and Cannon.

2. Dr. Brown commenced his testimony by reading into the record a prepared statement in which he briefly summarized the DOD space program and highlighted the progress made and significant changes since Dr. York's testimony before this same Committee on March 30, 1960. In his presentation Dr. Brown identified the following as the major DOD space programs currently under development: ADVENT, DISCOVERER, MIDAS, SAINT, SAMOS, TRANSIT, VELA HOTEL. In addition, he identified other programs as space related efforts rather than strict space programs oriented towards the development of orbiting space craft to perform specific missions. In the latter category, he discussed SPACETRACK, SPASUR, X-15, DYNASOAR, BLUE SCOUT, and Project WESTFORD. Within the text of his more detailed discussions on these programs he reviewed for the Committee the current status, the number of launches attempted, and the general objective of each effort. For example, he noted that in the DISCOVERER program there have been ten successes and three failures since March of last year, and noted that successful recovery had been achieved from orbit. It was indicated that this was an excellent record and that we were working towards developing a higher degree of reliability in the ability to recover capsules.

3. In his concluding remarks Dr. Brown observed that there was very little change in the DOD space program since Dr. York's testimony of last year. In terms of the future, he stated that it was not possible to define in detail specific military space programs since this is dependent upon the results of currently programmed R&D projects. He observed that for the military, space efforts are not an objective in themselves, as "we are undertaking only those applications which appear to hold promise of meeting specific military requirements or enhancing our over-all defense capability. -- These efforts must compete favorably on a cost effectiveness basis with other, more conventional, means of performing specific military functions or missions."

4. During the questioning period that followed Dr. Brown called upon his supporting witnesses only on one occasion. During questioning on the DYNASOAR program, General Haugen was asked to comment on the general objectives of this effort and the availability of materials to withstand

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high temperatures encountered on reentry. In his reply General Haugen observed that there were a number of materials which have been developed for use in the DYNASOAR program to cope with the heat problem. Senator Kerr asked both Dr. Brown and General Haugen if the DYNASOAR was not a duplication of NASA's effort to obtain manned orbital flight. Both General Haugen and Dr. Brown answered that the DYNASOAR was directed towards the development of different techniques to exploit maneuverability and to provide the capability to perform recovery at a precise location.

5. Other items of interest covered in Dr. Brown's testimony were as follows:

a. Military Need for Big Boosters

Both Senator Kerr and Senator Stennis asked Dr. Brown if the military had need for larger boosters. Dr. Brown replied that there was no presently defined military requirement requiring larger boosters than are now available or will become available under presently planned military programs. He observed that the Department of Defense was 'quite happy' that these larger boosters are being developed for other reasons and that by the time their development is complete there may well be some military requirement. He identified the DYNASOAR program as one potential use for larger boosters if the latter phases of the DYNASOAR program beyond phase one are approved.

b. Large Solid Propellant Boosters

Senator Stennis asked Dr. Brown to elaborate on the development time involved for a large solid propellant booster. Dr. Brown felt that within 18 months the first test of the basic motor would be possible. This would provide thrust in the order of two million pounds. For the complete development he estimated that it would take almost three years for the final static test. He went on to note that there was \$62 million budgeted for Fiscal '62 on this effort and that the total program might cost approximately \$250 million.

c. TITAN II

Senator Kerr asked whether there was any truth to the story that the military intended to up the thrust of the TITAN II to approximately 800,000 lbs. Dr. Brown testified that he had no knowledge of any such program and stated that there was no need for such increased thrust for any present military requirement. He went on to observe that a program was being pursued to develop high energy upperstage for TITAN II as there was some question on the ability of the ATLAS-CENTAUR to perform certain space missions such as the ADVENT.

6. The hearings adjourned at 1200 hours. There seemed little question but that the Committee will approve the NASA '62 budget request including increased effort on APOLLO and manned lunar landing. The Chairman's concern over the possible duplication between DYNASOAR and the NASA manned space flight program appeared to have been satisfied by the testimony of Dr. Brown and General Haugen. Copies of Dr. Brown's statement and the transcript for the hearing are available for review in SAFPL. (b)(3)

Colonel, USAF
Chief, Investigations Branch
Congressional Committee Division
Office of Legislative Liaison