MEMORANDUM For Administrator

March 31, 1959

Subject: Status Report No. 2 - Scout

1. Preliminary performance calculations were made recently by W. E. Stoney, Langley project engineer for Scout. Curves of payload capabilities for orbital missions and high-altitude probes are attached. The curves are based on estimated impulse values for new engines and estimated weights of non-existent hardware. These assumptions may be slightly optimistic. It is noted that the Scout will orbit a 300-pound payload at a 300 nautical mile altitude or will boost a 20-pound probe package to nearly 30,000 nautical miles. These payload capabilities are somewhat greater than the conservative values suggested earlier.

2. Payload packages for the Scout are being coordinated and programmed for launching in mid-1960. Recoverable experiments should also be considered. Although the vehicle will incorporate less accurate guidance than current liquid-fueled boosters, it should be possible to determine the orbit by tracking the spin-stabilized payload and retro-fire by ground command. The payload compartment as currently specified is a cylindrical shape 20 inches in diameter and 20 inches long. However, compartments two or three times this length and somewhat larger diameters can be tolerated.

3. Status report No. 1 mentioned that the initial contract would specify two three-stage vehicles and two four-stage vehicles. Due to rapid development of the ABL X254, the specifications were changed to read "four four-stage vehicles."
4. Airframe and launcher proposals have been received from the following companies:

Aerojet General
Aeromechanics
Allison
Aveo
Boeing
Chance Vought
Chrysler
Grumman
Lockheed
Martin
North American Aviation
Republic
Emerson

5. The source selection board will meet at Langley on April 6 and 7 with subsequent delivery of the first vehicle and launcher in early October.

Warren J. North
Program Chief
Manned Satellite and Scout

Attachments:
Chapters A and B