MEMORANDUM FOR: Mr. Nitze  
Mr. Helms  
Dr. Hornig

SUBJECT: Successful TAGBOARD Test Flight, June 16, 1968

TAGBOARD Drone #512 was launched over the Pacific Missile Range from the B-52 mother aircraft at 1534 EDT on June 16, 1968. The launch was without incident. The drone profile was approximately 400 nautical miles down range and then into a circular course around the ship "Range Tracker" at a constant 3.25 Mach for a total distance of 2824 miles. The entire flight was as programmed with the drone attaining an altitude of 91,000 feet even though it was in an almost continuous turn. Preliminary instrumentation indicated sufficient fuel remained for an additional 300 miles.

Hatch recovery was effected at 1723 EDT. The total drone flight time was 90 minutes 46 seconds.

This is the first fully successful near-nominal range flight of the TAGBOARD since reorientation of the program from launch by an OXCART-type aircraft to B-52 launch with rocket boost to cruising altitude and speed. I believe that this flight marks an important milestone in the program and that we can now proceed with considerable confidence with additional flights toward achieving an operational capability by the end of the year.

Although many actions have been taken to improve the system reliability as a result of deficiencies shown in the past several flight tests, the key difficulty encountered was in the failure of the ramjet engine to achieve stable cruise operation at the end of rocket boost. The
fixes to the inlet spike and modifications to control and initial operating limits which have been made and incorporated in the vehicle used in this flight have apparently solved these problems.