SECRET

OFFICE OF THE SECRETARY OF DEFENSE
WASHINGTON 25, D. C.

31 May 1963

MEMORANDUM FOR Mr. Timothy J. Reardon, Jr.
Special Assistant to the President

SUPPLEMENT: Supplement to the Weekly Report
for the President

Attached is an item on Classified Space Project 461.

Adam Yarmolinsky

Attachment
Classified Space Project 461
Special Access Required

Upon removal of attachment
this memorandum becomes
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A MIDAS Satellite Was Successfully Launched by Air Force on 9 May 1963 from Vandenberg AFB

All aspects of the launch were successful. The satellite vehicle achieved a near normal circular orbit of 2,000 n.mi. (actual apogee is 2,015 n.mi. and perigee 1,934 n.mi.), and is functioning close to design parameters. This is the first completely successful demonstration in Program 461. The satellite is stabilized and oriented to perform its mission. The infrared payload is functioning satisfactorily, and the payload data being obtained are of very high quality.

Test objectives of this launch are to obtain infrared background data in the MIDAS environment, and to exercise the payload against cooperative missile targets. On 10 and 18 May, Navy cooperated with Air Force by timing launches of POLARIS missiles to coincide with orbital passes of the MIDAS satellite over the launch site. A MINUTEMAN launch on 18 May and a TITAN II launch on 24 May were also timed to coincide with the orbital passes of the MIDAS satellite for detection purposes.

Readout data have unequivocally established actual detection of each of these launches. In the case of TITAN II, 8 good strong returns were witnessed in real time on a scope display.

The MIDAS payload was designed to detect liquid fueled targets of much higher radiance and longer burning times than solid fueled missiles. The confirmation of the POLARIS detections required manual data analysis because of the short burn time. A solution to real time readout of a POLARIS launch does not present a serious technological problem. Results of the present infrared payload have demonstrated a much higher level of performance than was generally believed obtainable. The lifetime of the satellite is expected to continue through the next 2 to 3 weeks, and additional attempts at detection of MINUTEMAN, TITAN II, and POLARIS missiles will be made.

The objective of Program 461 is to perform research and development on a system of orbiting satellites designed to detect enemy ICBM launches in their launch phase from the rocket motor infrared radiation.

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Of the 7 MIDAS launches to date, 5 have been successfully injected into orbit. MIDAS VII carried the West Ford package (orbiting needles communication experiment) aboard. The West Ford package was ejected as planned into the proper polar orbit.

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Downgraded at 3 year intervals;
declassified after 12 years.
DoD Dir 5200.10.

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