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THE SECRETARY OF DEFENSE  
WASHINGTON

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APR 23 1960

by WJ NLE Date 11/10/77

Dear Mr. President:

A summary of progress of the Anti-Ballistic Missile Weapon System Program for the three-months period ending 15 January 1960 is attached.

Work on the Ballistic Missile Early Warning System is proceeding satisfactorily. With construction work at Thule on schedule and at Clear generally ahead of schedule, decision was made on 15 March to accelerate all phases of implementation at Clear. This will advance the scheduled initial operational capability date at Clear from 30 September 1961 to 30 June 1961. The United States-United Kingdom government-to-government agreement (on cost sharing) for the implementation of Site III at Fylingdales, England, was signed on 15 February. Work is now initiated for the activation of this site.

The development of the NIKE-ZEUS Anti-Missile Guided Missile Defense System towards test evaluation is progressing satisfactorily. Since the end of the reporting period, the fourth and fifth flight tests were made of the NIKE-ZEUS missile. Both tests were successful and all test objectives were achieved. Component development is satisfactory and test site construction is in progress. Decision was made to increase the power of the Local Acquisition Radar and use it for all locations, local and remote, as required. This decision has made unnecessary the development of a separate Forward Acquisition Radar.

With great respect, I am

Faithfully yours,



*James H. Douglas*

DEPUTY

*Reported to President  
27 April 60  
JSD E*

Inclosure - 1  
Report No. 8, Progress of  
Anti-Ballistic Missile  
Weapon System Program  
(Summary)

The President

The White House

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SUMMARY

15 October 1959 - 15 January 1960

BALLISTIC MISSILE EARLY WARNING SYSTEM (BMEWS)

Progress on the Ballistic Missile Early Warning System is proceeding satisfactorily and indicates that initial operational capability can be achieved by the dates scheduled. These dates are 30 September 1960 for Thule, Greenland, and 30 September 1961 for Clear, Alaska. Excellent progress was made in negotiations for the establishment of Site III at Fylingdales, England. There are no problem areas at this time that threaten to delay any phase of the program.

Construction work at Thule is on schedule. All technical buildings have been accepted and emplacement of the electronic components is underway. Erection of the four radar antennas was completed.



Construction progress at Clear is considered to be generally ahead of schedule with no major problem areas anticipated. The end of the outdoor construction season came during the early part of this reporting period but inside work was carried on in two enclosed buildings. All phases of work, with the exception of the power plant which was delayed by the carpenters' strike last summer, are on or ahead of schedule.

Progress is satisfactory on the establishment of rearward communications from the forward sites to the Zone of the Interior display facilities at Colorado Springs, Colorado. On 1 December, through communication was established between the switchboard at Thule and the BMEWS Project Office in New York City. This tie line, together with a similar one between Thule and Westover Air Force Base, Massachusetts, represents the first use to be made of the submarine cable completed this last summer between Thule and Cape Dyer.

Arrangements were being made to establish the Zone of the Interior central computers and display facilities for the North American Air Defense Command at Colorado Springs, Colorado, and the Strategic Air Command at Omaha, Nebraska. Similar display facilities will be installed at each headquarters and their initial operational capability is scheduled to coincide with that at Thule, on 30 September 1960.

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NIKE-ZEUS ANTI-MISSILE GUIDED MISSILE DEFENSE SYSTEM

Progress on the NIKE-ZEUS research and development program during the period of this report was consistent with the original program objectives. Component development and test site construction are progressing at a rate consistent with the schedule for a limited-system test at the White Sands Missile Range beginning in mid-calendar year 1961 and a full-system test at Kwajalein Island beginning in mid-calendar year 1962.

Decision was made to terminate all effort on a separate Forward Acquisition Radar. The Local Acquisition Radar, redesignated the Zeus Acquisition Radar, will be given increased transmitter power (from five megawatts to ten megawatts). It may be deployed at remote sites if such deployment should be indicated in final deployment plans. Decision was made also to use klystron tubes instead of triode tubes for the high power amplifier in the Zeus Acquisition Radar Transmitter.

The third NIKE-ZEUS test missile was flight tested at the White Sands Missile Range on 16 December 1959. The test was partially successful. Operation and performance of the booster was normal. The first stage separation was effected but the sustainer motor did not ignite. A maximum velocity of 3,000 feet per second was attained in five seconds.

Construction of NIKE-ZEUS supporting test facilities at the White Sands Missile Range, Point Mugu, Ascension Island, and Kwajalein Island is in process.

No decision has been made to commit the NIKE-ZEUS system to production. The initial operational capability (first three batteries on site) can be achieved 48 months after a production decision is made and a production contract signed.



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