

~~SECRET~~

SECURITY INFORMATION  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
 LINCOLN LABORATORY  
 P. O. Box 390  
 CAMBRIDGE 39, MASSACHUSETTS

CLASSIFICATION CHANGED TO:  
 DD 254  
 Auth: RR EVERETT  
 By: RR EVERETT  
 Date: 2-15-60

L-108

OPERATING PROJECT LINCOLN

UNCLASSIFIED

Page 1 of 4  
 July 10, 1953

## MEMORANDUM

From: Jay W. Forrester

Subject: Air Force Cancellation of Boeing Subcontract to Westinghouse

Abstract: The AFCRC and Wright Air Development Center are recommending to ARDC in Baltimore that Boeing cancel their subcontract with Westinghouse Electric Corporation for the electronic ground environment part of the Bomarc missile program. The Air Force then expects that the Lincoln Laboratory will provide the equivalent Bomarc control facilities in the Transition System. This is an action which was initiated by and decided by the Air Force as an economy measure and in order to obtain a more standardized and closely knit ground environment. Although the decision appears technically sound, it was reluctantly accepted by the Lincoln Laboratory because full information on the technical problems involved is not yet available and because of the additional load it will put on the Lincoln staff. Cancellation of the Westinghouse work may lead to some unhappiness toward MIT.

In a letter dated 6 May 1953, ARDC instructed AFCRC to work with Wright Air Development Center in arriving at a recommendation which would resolve the problems and uncertainties existing between the Transition System and the ground environment which was being planned for the Bomarc weapon (F-99).

Boeing has a subcontract with Westinghouse Electric Corporation for building a production prototype (G-20) which would have evolved into a production system (G-31). This is the Bomarc Ground Environment which had been designed by the University of Michigan and had originally been planned along the lines of the general electronic ground environment on which Michigan had until recently been working.

Meetings were held the week of June 15 between AFCRC, WADC, Boeing, and Lincoln persons. Minutes of these meetings are in my memorandum L-102 dated June 23, 1953. At these meetings Lincoln recommended the continuation of the Westinghouse program while additional studies of a proper future course were being made. However, by the end of the week, the WADC representatives, who control the Boeing contract, arrived at the decision that they should at the present time stop the Westinghouse program, which was expected to cost them about \$13 million during the coming fiscal year and consolidate their requirements for the Bomarc weapon with the Lincoln system immediately. They discussed their proposal with Boeing during the following week and a meeting was held here on June 26 which resulted in making the attached draft of a letter which AFCRC expects to transmit to Baltimore.

~~SECRET~~

SECURITY INFORMATION

UNCLASSIFIED

~~SECRET~~

SECURITY INFORMATION

Memorandum L-108

UNCLASSIFIED - 2 -

July 10, 1953

Boeing was present at the various meetings mentioned above, and I believe is fully aware that this was a decision arrived at by the Air Force primarily as a result of budget pressures. Westinghouse was not represented and did not know of the impending decision at the time of the meeting on June 26. When the decision is presented to them by Boeing or the Air Force, they may attach some responsibility to MIT for the termination of their activity.

I believe that there is no action that we can or should take at the present time except to inform anyone at MIT who might be approached by Westinghouse on this matter.

Jay W. Forrester

JWF:eg  
attch: draft letter

UNCLASSIFIED

~~SECRET~~

SECURITY INFORMATION

~~SECRET~~

SECURITY INFORMATION

Memorandum L-108

- 3 -

July 10, 1953

UNCLASSIFIED

DRAFT

SUBJECT: Recommendation Pertaining to Lincoln Transition System - Bomarc  
Weapon System Development

TO: Commanding General  
Air Research and Development Command  
Post Office Box 1395  
Baltimore 3, Maryland

1. Reference is made to your letter, subject: Revision of Command Policy Pertaining to Lincoln Transition System, dated 6 May 1953. In reference to paragraph 5 of cited letter, the recommendation of this Center is that the presently planned Production (G-31) ground weapons control portion of the Bomarc Weapon System should be terminated. This recommendation is based on the assumptions that:

a. The Bomarc Weapon System must operate with the Lincoln Transition System ADEE in order to allow maximum utilization of the Bomarc Weapon System.

b. The Air Defense System employing Bomarc Weapon, (F-99) consists of surveillance and detection, of data processing and storage, of threat evaluation, of weapon assignment, of weapon control, and of the F-99.

c. That the radar data gathering portion of the Transition System is the same as that previously established for compatibility with Bomarc Weapon Control. (i.e. unmodified, standard AN/FPS-3 or AN/CPS-6B).

d. Leased telephone lines be provided between AFMTC, Patrick AFB, and point of installation of first preproduction AN/FSQ-7 in the vicinity of Lexington, Mass.

UNCLASSIFIED

~~SECRET~~

SECURITY INFORMATION

~~SECRET~~

SECURITY INFORMATION

Memorandum L-108

- 4 -

July 10, 1953

UNCLASSIFIED

2. WADC concurs with the above action provided:

a. That the FSQ-7 be modified to meet the guidance requirements of the F-99. The minimum objectives of the guidance modification should be to control the Bomarc Weapon as well as the presently planned G-31 ground weapon control and to optimize, as much as practicable, weapon performance. The FSQ-7 modification objective should be accomplished and available for operational use by January 1957. These actions require that paragraphs 1a and b be clearly recognized as being significantly important.

b. That an FSQ-7 be provided as soon as practicable for use at the Air Force Missile Test Center as a test facility.

c. That development of fine tracking be continued. Fine tracking will be further investigated by Project Lincoln and incorporated into the Transition System if required.

3. In order to carry out the above program it is required that:

a. A contract be negotiated with IBM to provide, install and maintain the ANFSQ-7 recommended under 2, b above.

b. Funding be accomplished to provide the AN/FSQ-7 cited under 2.b, above.

c. The G-12 installation at AFMTC, Patrick AFB will require additional modification to assure that the F-99 flight test program is not jeopardized.

UNCLASSIFIED

~~SECRET~~

SECURITY INFORMATION