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Memorandum M-2773

Page 1 of 1

Division 6 - Lincoln Laboratory
Massachusetts Institute of Technology
Cambridge, Massachusetts

SUBJECT: SECRET SUPPLEMENT TO BIWEEKLY REPORT OF April 9, 1954

To: Jay W. Forrester

From: Division 6 Staff

(H.D. Neumann) (SECRET)

CLASSIFICATION ON R.I.D. TO:
Auth: DD 254
By: RLP
Date: 5-5-60

Of the 6000 interceptions, 3000 were run. Doubtful results will be examined with the aid of the diagnosis program.

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Memorandum M-2796

CLASSIFICATION CHANGES TO:
Auth: DD254
By: RRG
5-5-60
SUBJECT: SECRET SUPPLEMENT TO BIWEEKLY REPORT OF April 23, 1951

Division 6 - Lincoln Laboratory
Massachusetts Institute of Technology
Cambridge, Massachusetts

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To: Jay W. Forrester

From: Division 6 Staff

(J.A. Arnow) (SECRET)

A meeting was held on 16 February with representatives from Boeing, Westinghouse, WADC, IBM and Lincoln. The tie-in of the F-99 base with the AN/FSQ-7 was discussed. Specifications written by Westinghouse for transmission of messages for the ground-to-air data link, alert, secure, and pre-launch commands and status information are not in accord with the output specifications for the FSQ-7. No final decisions were reached at the meeting, but arrangements were made for another meeting at Baltimore on 13 May to discuss more detailed proposals for joining the two systems.

Preliminary results of the first 250 simulated F-99 interceptions were discussed in the afternoon. Boeing suggested that the simulation be extended to determine the effect of transmitting new seeker angles during the transition dive phase and an increase in the seeker angle from 12° to 15°.

All of the six thousand preliminary runs of the F-99 simulation have been made. The reduction of this data manually pointed out the advantage of having it available on punched cards in order to plot distributions against any of the parameters involved. Since there are indications that more runs will be made with the program, existing and future results will probably be transcribed to punched cards either manually or from paper tape in order to facilitate reduction of this data.

(H.D. Neumann) (SECRET)

The program which simulates target interceptions by F-99 has been modified. Instead of determining the success or failure of an interception by counting two successive lock-ons, the maximum number of successive lock-ons is now counted, and the run is completed when predicted interception time is reached. This number is printed out together with the numbers identifying the run. No other data is printed out. This shortens the recording time considerably.

With these changes the 6000 interceptions, mentioned in previous reports, were completed. For future runs it is hoped that further simplification in recording and analysing the data can be made with the aid of punched cards.

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M-2796
4-23-51

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Memorandum M-2796

Page 2

(B. Smulowicz) (SECRET)

The preliminary simulation of the F-99 Interceptor in the Lincoln environment has been successfully completed. The simulation consists of 6000 separate interceptions, including several target maneuvers, altitudes, relative headings, quantizations, and sampling rates. The results are being tabulated for graphical presentation and for isolation of critical cases.

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