

DD 1 FEB 50 95 Replaces DA AGO Form 895, 1 Apr 48, and AFRQ Form 12, 10 Nov 47, which may be used.

₽ GPO : 1951 - O 825564

SEP 25 1951

MEMORANDUM FOR AFSA-OOT

THRU: AFSA-04 RCS

SUBJECT: Low Echelon Cipher Machine

REFERENCES:

(a) OOT Memo to AFSA-03, dtd 29 Aug 51

(b) AFSA-04 Memo to AFSA-03, dtd 11 Sep 51

1. AFSA-03 is of course interested in the development of any equipment, including the modified M-209, which might satisfactorily meet the requirement for a low echelon cipher machine not requiring electrical power.

- 2. It is understood that AFSA-04 has not been able to make a comprehensive security evaluation of the modified M-209 as yet due to the fact that the model submitted by Mr. Hagelin does not operate satisfactorily. AFSA-04 points out, however, that such studies as have been made seem to indicate certain security weaknesses in the sample model as it now stands.
- 3. Since Mr. Hagelin's organization is currently engaged in improving the design of his machine, it is felt that any decision regarding the establishment of a project to develop this particular type of equipment for our own use should be delayed until the results of Mr. Hagelin's latest efforts have been studied and a complete security evaluation of the cryptoprinciples involved has been made.
- 4. AFSA-03 therefore concurs in the recommendation made in paragraph 4 of reference (b) and suggests that the model of the machine which we now hold be returned to Mr. Hagelin immediately and that he be asked to send us a model of his new design as soon as possible.

CC: AFSA-04

J. S. HARPER Captain, U.S. Navy Chief

Office of Research and Development

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