

1st Memo. Ind.

W.P.&T.Div., OCSigO, August 6, 1930 - To Research & Development Division.

1. Approved.

Att:Diagram.

D. M. Crawford,
Major, Signal Corps.

2nd Memo-Ind.

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Research & Development Division, OCSigO, August 14, 1930. To: War Plans & Training Division.

1. In forwarding the directive to the Signal Corps Laboratories for the initiation of development work on a cipher machine, it is believed that if possible they should be furnished with a general statement of the military requirements which such a machine should meet. While it is recognized that certain preliminary work can be conducted without a definite idea of what ends may be attained, such a statement of requirements either in the form of a general performance specification or a general statement of requirements would be of great assistance to the laboratories and would aid in making active progress on this development.

2. Your comments and recommendations in this matter are requested.

John H. Gardner, Jr.,
Captain, Signal Corps.

Attached-
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WAR DEPARTMENT
ain
 OFFICE OF THE CHIEF SIGNAL OFFICER
 WASHINGTON

August 5, 1930

MEMORANDUM FOR: Major Crawford

1. During the past three years the Chief Signal Officer has upon several occasions expressed the opinion that the production of an efficient, practical cipher machine is a pressing necessity. It goes without saying that such development had to be held up pending the availability of funds for this specific purpose.

2. Attached hereto is a diagrammatic representation of a cipher machine conceived in 1925 by the late Louis H. Evans, George A. Graham, and myself. Believing that the proposed machine presents excellent possibilities for military usage, steps were taken to set up funds for its development. These were successful and on July 1, 1930 there became available to the Research & Engineering Division the sum of \$1500 for the development of cipher machinery.

*this was
in error.
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3. Since funds are now available, it is suggested that, if approved, this memorandum be forwarded to the Research and Engineering Division with the recommendation that (a) this project be initiated at the earliest practicable date, and (b) that if actual developmental work on the proposed machine cannot be started by October 1, 1930 at the Signal Corps Laboratories, Fort Monmouth, the work be carried forward by developmental contract awarded on competitive bids, as is done in other cases similar to this.

4. It is my belief that it would be preferable to carry on the development at the Laboratories. Mr. Graham is there, has detailed knowledge of the requirements, and has had much experience in this field with somewhat similar apparatus. Furthermore, on account of the very limited field for the use of cipher apparatus in commerce or industry, it is likely that the cost of development by outside contract would be in excess of funds now available.

William F. Friedman,
 Signal Intelligence Section.

Attached:
 Diagram.