

~~CONFIDENTIAL~~ Security Information

Serial: 01098

17 NOV 1953

~~CONFIDENTIAL - SECURITY INFORMATION~~MEMORANDUM FOR THE ASSISTANT CHIEF OF STAFF, G-2, DEPARTMENT OF THE ARMY
ATTN: Brigadier General Mark McClure

SUBJECT: H.R. 1152, 83rd Congress, 1st Session

1. Your memorandum of 5 November 1953 requests my comments on the adequacy of the \$25,000 award mentioned in the report of the Secretary of the Army on H.R. 1152, a Bill for the relief of William F. Friedman. You point out that this Agency is peculiarly qualified to appraise the value of Mr. Friedman's inventions.

2. As the record will indicate, the inventions which are the basis of the proposed award under H.R. 1152 were developed prior to my assignment as Director, National Security Agency, and, in fact, before the establishment of this Agency. Therefore, I have no personal knowledge of the circumstances surrounding Mr. Friedman's work in developing these inventions. Accordingly, my comments necessarily reflect merely the information and impressions which I have gained from association with the staff of this Agency and of the Army Security Agency, together with a general understanding of the status of the cryptologic art in this and other countries.

3. With respect to the specific question in your memorandum as to whether the amount of \$25,000 would be adequate, I note that in recommending that amount the Secretary of the Army stated that the amount was based "on the facts at hand" and that the full amount of the award proposed in H.R. 1152 was not favored "in the absence of more definite information" relative to the loss sustained by Mr. Friedman as a result of the secrecy limitations which have prevented exploitation of the commercial possibilities of his inventions. The Secretary of the Army also indicated that he was relying on my opinion of the difficulties in evaluating the loss.

4. While it is certainly difficult to evaluate Mr. Friedman's loss, and precise evaluation would be impossible, there are several considerations which permit a reliable appraisal of the reasonableness of the award proposed in H.R. 1152. The machines based on Mr. Friedman's inventions are outstanding in their field, and to the extent that there is or has been a demand for machines of these types, the relative excellence of the Friedman machines would give them an important competitive advantage. There was, during the recent war, and still is unquestionably a large market among foreign

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governments for cryptologic devices. I am in no position to gauge the need of business firms for cryptologic devices, but even a very limited demand would yield substantial royalties because of the high unit cost of the machines. Therefore, it is entirely reasonable to suppose that the potential market for Mr. Friedman's inventions has been such that the royalties to the inventor could have been substantially in excess of \$100,000, although the difficulties besetting the inventor in realizing the potential profits in his inventions are of course substantial.

5. Any payment to Mr. Friedman would have to be based, not on a legal claim against the United States, but on considerations of equity, which, as the Secretary of the Army has indicated, is a matter for Congress to determine. However, I believe that it would be appropriate to advise Congress that classified information in the possession of the Department of Defense indicates that the potential loss sustained by Mr. Friedman as a result of his being prevented from exploiting the commercial possibilities of his inventions is considerably in excess of the amount of the award proposed in H.R. 1152.

6. On the broader question of policy, I should like to indorse the general position set forth in the Secretary's report to Congressman Reed as to the equitable and practical justification for rewarding Government employees who make unusual contributions to the National Security beyond the reasonable requirements of their official duties. The need for special incentives to attract highly skilled technicians to Government service is particularly acute in a time of high defense activity when the demands of industry for technically qualified personnel are abnormally great.

~~170~~ Ralph J. Canine

RALPH J. CANINE
Lieutenant General, US Army
Director

cc: DIR
→ AG
Legal Advisor