

WDGASS-11

26 January 1946

MEMORANDUM FOR ASSISTANT CHIEF OF STAFF, G-2

SUBJECT: Release of Cryptographic Principles

DISCUSSION

1. Prior to and during the war a number of military and civilian personnel in the employment of the War Department have developed numerous cryptographic principles and devices. With the termination of hostilities certain inventors have expressed an interest in obtaining patent rights to those items developed by them which may be or have been superseded. Since this point was never raised before the war it is undoubtedly motivated by current War Department releases of patent rights other than cryptographic to the inventors for their private or commercial exploitation. Attention is invited to Inclosure 1 in which application is made for the release of patent rights concerning principles involved in the use of the Converters M-228 and M-294.

2. On the part of the inventors, it is felt by them that many devices now in use will be superseded by future developments, and as such, no military requirements will exist for outmoded equipment. However, until they are superseded, the equipment will still be in current use. Some of this equipment may have a potential use in commercial communications. This immediately leads to a desire on the part of the inventors to exploit such devices on a commercial basis.

3. It is pointed out by the inventors that a civilian not in the employment of the government service can develop and patent for use by commercial companies any number of cryptographic devices, and that the restriction of patents by the War Department which are not longer of value would be unfair to the individual employed by the government.

4. It is understood that there have been cases in which reimbursement to an individual for patent rights has been made through an act of Congress. It is the responsibility, however, of the individual to enlist the aid of a representative of

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Congress to gain such monetary allowances as is deemed proportionate to the device in question. No action on the part of the War Department is incurred other than the fact that the matter may be referred to it for information upon which to base a decision by a Congressional committee.

5. Attention is invited to AR 850-50, Inclosure 2. Paragraph 7 thereof states:

"7. Title to patents on inventions made by War Department employees. -- a. In case an officer, warrant officer, enlisted man, or civilian employee of the War Department or of the Army is specifically designated or employed to invent a specific thing and does so at the expense of the Government, the title to the invention and to the patent obtained thereon becomes the property of the Government. If the invention is made in the course of the general employment of such person on the time or at the expense of the Government but not by direct designation or employment for that purpose, the Government has an implied license to use the invention, but the title thereto and the patent acquired thereon is the property of the inventor."

6. Attention is invited to Inclosure 3 which outlines the War Department policy on the release of scientific and technical information to the public. The policy is liberal and specific to the end that all developments of a classified nature in the custody of the War Department will be released for public benefit with the exception to those items, the publication of which would cause exceptionally grave danger to the nation, or endanger the national security, or cause injury to the interest or prestige of the nation or any government activity thereof, or which would be of great advantage to a foreign nation.

7. The security of War Department communications depends upon safeguarding the means with which such communications are cryptographed. All information to date indicates that enemy governments have not been able to read War Department high grade cryptographic systems.

8. The release of cryptographic devices or patents by the War Department would endanger the security of all systems for the following reasons:

a. It would permit inspection by foreign countries of those patents and devices released.

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b. While the United States Army relies for communications security upon a specific key rather than the secrecy of a particular plan, the principles of the more secure War Department systems are held in secrecy because the recovery of the basic principles must be accomplished as the first step in the cryptanalysis of our traffic. Removal of this obstacle would be a direct benefit to enemy cryptanalysts and might lead to the breakdown of systems which are otherwise secure.

c. A precedent would be established which may lead to further demands to the extent that the entire War Department cryptographic plan might be compromised.

d. The quality and refinement of our cryptographic devices bear a direct relationship to our ability in the cryptanalytic field of endeavor. Application of our basic principles by foreign governments to their own communications would eventually result in presenting the War Department intelligence personnel with a more serious, if not insurmountable, problem of solving foreign cryptographic systems.

9. It is concluded that the important considerations in the release of cryptographic principles are the affects such releases would have upon the security of United States Government communications and the continuance of communications intelligence sources. There is little evidence available to indicate that other nations are as far advanced in cryptographic principles as the War Department. Consequently, the release of the knowledged gained by the United States personnel would be of considerable benefit to other nations. The establishment of a precedent by releasing any information of this nature may lead to further demands which could not be met without serious compromise.

RECOMMENDATION

1. That the policy be established whereby no cryptographic principles, devices, or patents of any nature developed by the War Department be released for commercial or private enterprise until such time as the War Department has perfected a procedure whereby the device in question can be read under any and all circumstances.

2. That the War Department adopt a policy of favorably considering any reasonable request by Congressional action for reimbursement of an individual for cryptographic patents invented by them while in the employment of the War Department.

3 Incls

1. Cy ltr dtd 27 Sep 45

2. AR 850-50

3. Cy memo, undated, subj:
Classification, Reclassification
and Declassification of Scientific
and Technical Information

W. PRESTON CORDERMAN
Brigadier General, USA
Commanding

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MEMORANDUM FOR: Assistant Chief of Staff, G-2

Director, New Developments Division
 Director, Bureau of Public Relations
 Commanding General, Army Air Forces
 Commanding General, Army Ground Forces
 Commanding General, Army Service Forces.

SUBJECT: Classification, Reclassification and Declassification of
 Scientific and Technical Information

1. The President, by Executive Order No. 9666 dated 8 June 1945 and Executive Order No. 9604 dated 25 August 1945 (copies attached) directs the appointment of a Publication Board composed of the Director of War Mobilization and Reconversion (Chairman), the Attorney General, and the Secretaries of Interior, Agriculture, Commerce, and Labor. This Board will review insofar as it may be done without prejudice to the public interest, certain scientific and technical data now or hereafter withheld from public dissemination for the purpose of national security, to the end that such information may be of maximum benefit to the public.

2. The Secretary of War is authorized to designate one Liaison officer to participate in the meetings and discussions of the Board. The Director, New Developments Division has been designated as the Liaison officer and his office shall be responsible for the processing of requests for release of such scientific and technical information necessary to the proper functioning of the Board.

3. All departments and agencies have been directed to furnish, upon request of the Board, such information which is essential to the performance of the duties under the Executive Orders. It is therefore expected that requests will be made to your office through the New Developments Division for the release of this scientific information and for the furnishing of personnel to be members of certain specific operating committees. As liberal a policy with respect to review and declassification of classified projects and material as is consistent with continuing only those items of information, the publication of which would cause exceptionally grave damage to the Nation, or endanger the national security, or cause serious injury to the interest or prestige of the Nation or any governmental activity thereof, or which would be of great advantage to a foreign nation, or cause administrative embarrassment, etc., will be retained in a security classification (See parts 4, 5, 6, and 7, AR 380-5, 15 March 1944).

4. It is considered desirable that these civilian and military members of the War Department who have been responsible for the invention and development of new ideas and techniques be encouraged to prepare their own documents for review. This is to be done in order to give appropriate recognition to those persons or groups who have made professional contributions towards the development of new ideas and techniques.

5. To fully comply with the spirit of these Executive Orders, it is desired that special emphasis be placed on the review of all projects and material to the end that such scientific and technical information as is consistent with the provisions of the Executive Orders may be made available for release and publication.

6. To this end it is desired that all classified projects and material be reviewed as rapidly as is practicable and in the light of the policy enumerated in paragraph 3 such review will be appropriately coordinated through the technical committees or by similar action. The Commanding General, Army Service Forces and the Commanding General, Army Air Forces are requested to submit a list of projects and material which should be retained in a classified status with substantiation for such retention. An initial progress report will be submitted by 20 September 1945. It is expected, however, that it will be necessary to process individual cases during the interim period which are received as requests from the Publication Board.

2 Incls

1. Cpy Exec Order No. 9568
dtd 8 Jun 45
2. Cpy Exec Order No. 9604
dtd 25 Aug 45

J. E. HULL
Lieutenant General, GSC
Acting Deputy Chief of Staff