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OFFICE OF THE SECRETARY
 UNITED KINGDOM JOINT COMMUNICATIONS-ELECTRONICS COMMITTEE (WASHINGTON)
 ROOM 4902, MAIN NAVY BUILDING
 WASHINGTON 25, D. C.

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 N. 204

6 March 1952

MEMORANDUM FROM: Secretary, UK JCEC(W)
 TO: Director, Armed Forces Security Agency
 SUBJECT: FRENCH MODIFIED CONVERTER N. 209-B

1. You will recall that the U.K. and U.S. were supplied with models of French Modified Converter N.209-B for trials with a view to its being used as a "3rd level" NATO cryptic system.
2. The U.K. Services have now completed their trials and report as follows:-
 - a. The setting up of the machine is complicated and lengthy. It takes from 20 to 35 minutes according to conditions of light, temperature, etc., and might be well nigh impossible under the most adverse conditions to be found on active service.
 - b. Operation of the machine is slow and tends to become slower owing to eye-strain due to the scrambling of the alphabet on the setting wheel.
 - c. Grit, dirt and damp may impair the function of the machine under active service conditions.
3. On practical grounds the U.K. Services are not prepared to use this machine for intra or combined purposes.
4. The U.K. Services agree however that the machine may fulfill a useful role at the third level in other NATO Nations who may lack better equipment and that its use by those Nations at that level should be authorized provided the restrictions in the following paragraphs are enforced.
5. The following restrictions are considered necessary if the machine is to afford adequate security for third level communications:-

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- a. All settings (including the alphabet scramble) must change daily.
- b. Direction procedure must be employed during encryption.
- c. The number of groups to be encrypted on one message setting must be limited. The limit should preferably be 50 groups but, if this is considered to be too short for practical requirements, a higher limit could be accepted but this should under no circumstances be more than 100 groups.

6. Your remarks or concurrence in this report are requested; upon receipt of which it is proposed that an agreed reply should be furnished to the French Member of the GECS.

/s/



cc: Captain E.A. Taylor, USN



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