

CSGAS-14

12 November 1947

SUBJECT: Comments Requested on Instruction Manual,
Converter M-209

TO: Chief, AS-23

1. My former concurrence in the recommendation to supply a special manual for the purpose indicated in Par. 1 of Action 1 was predicated on the assumption that such a manual would include a fair amount of information on keying. It now appears that all such information may be eliminated from the special manual. Although the views and recommendations of AS-90 and of AS-80 on the matter are appreciated, I am not certain that the adoption of the recommendation would really be the best interests of the Agency or of the U.S. as a whole. Also, since the time the decision to supply a special manual was made, a new factor has entered into the case, and I believe that further consideration should be given this matter from a broader point of view than that based solely upon the effect on the efficient functioning of our signal intelligence effort.

2. As I understand it, these Latin American countries are being assisted by the U.S. so that they will be equipped and trained militarily to be our allies in a hemispheric defense. Communications will be a vital element in such a defense and the protection of those communications will be an important part of the military security, not only of the Latin American forces themselves but also of any U.S. forces associated with them. To permit the Latin American forces to use Converter M-209 in a manner which will lay all their communications open to an easy cryptanalytic attack would therefore be likely to lay U.S. communications to similar attack and would be counter to the best interests of AS-80 in performing its functions in respect to communication security of our own forces. On the other hand, there is no question that to supply these Latin American countries with our own or nearly similar instructions for employing Converter M-209 would spread knowledge of proper usage of this device in quarters where such information is now not current, and this would increase the future problems of AS-90, thus constituting a disadvantage to U.S. signal intelligence interests.

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3. It seems to me, therefore, that a choice must be made between two conflicting interests of the Agency as a whole and of the U.S. Government. The communication security responsibilities of the Agency, on the one hand, demand that we do not allow our possible allies to jeopardize our own communications; the signal intelligence responsibilities of the Agency, on the other hand, make it desirable not to facilitate the spreading usage by other governments of increasingly secure methods of using systems based upon the Hagelin machine. The question reduces itself to this: from which angle have we more to lose, or from which source is there more danger to U.S. interests.

4. Weighing the imponderables in this case, it seems to me that in this situation we would find less danger to our signal intelligence interests than to our communication security interests. In the first place, already several hundred of these devices together with excellent instructional manuals have been provided certain of these countries; to tighten up on the situation now is to take a position equivalent to "locking the stable door after the horse has been stolen." In the second place, personnel from the Armies of these Latin American countries are students at our service schools and are presumably being taught our method of using the device. In the third place, to issue a new manual which on comparison with the old one would show that the former has been emasculated by deletion of all operating instructions would in itself arouse suspicions of three sorts: first, that the U.S. is not acting in good faith; second, that the U.S. is trying to hide something that must be pretty good; and third, that the U.S. does not want these governments to use its own method because the U.S. must now be able to read messages enciphered on this device when the messages are not prepared according to that method.

5. a. Assuming that we do not include any keying or operating instructions in the proposed manual, the Latin American governments will have to obtain them elsewhere, for it will be obvious to them that certain rules for setting up the key will be necessary. Their courses of action might be as follows:

- (1) Probably as a first step, they would request that, as was previously done, we supply them with operating instructions. If we should then take the position that we cannot give

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them our own operating instructions, for the reason that it is contrary to U.S. policy in such matters, they would probably then proceed to the next step.

- (2) They would perhaps either request suitable basic or general information on which to prepare their own, or else they might proceed to prepare their own without further help. In either of these two events the risks to their and our own communication security would probably be as indicated in Par. 2 above.
- (3) It is also possible that they might try to obtain operating instructions from the Hagelin Company itself. This would put the U.S. in a very embarrassing situation, in addition to involving the security risks mentioned above, since it is doubtful, judging by the way certain non-U.S. users of the device employ it, that the Hagelin Company understands or has found the best way of using it.

b. None of the foregoing possibilities or probabilities is particularly inviting as a solution to the difficulties in this matter. On the other hand, some consideration can be given to the signal intelligence factors in the case.

6. Assuming that the same manual that was issued with the first lot of M-209's furnished the Peruvian Government was also supplied with these additional devices to be given other Latin American governments, the signal intelligence risks to U.S. interest are not thought to be serious. In the first place, these devices are being furnished for low-echelon tactical usage by military units and there is nothing to indicate that either the foreign offices or the high-echelon military headquarters of those governments intend to use the device and no machines are being furnished for such purposes. In the second place, even if those offices and headquarters did adopt the device in place of their present methods, the chances that they would absolutely avoid all violations of rules and invariably use the device correctly in a manner as to defy our own well-developed cryptanalytic attacks are not too good, so that, if necessary, we could probably read the bulk of the traffic.

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7. Since the decision to supply a special manual for this purpose was made, a new factor has arisen in connection with this whole subject. The legality or at least the ethics of the U.S. supplying other governments with Converter M-209 may be questionable, in view of special patent arrangements made by this Government with Mr. Hagelin. The U.S. purchased only the U.S. patents to Converter M-209, for U.S. usage only. It is possible that the whole matter might become most embarrassing from this point of view, as sooner or later the Hagelin Company is bound to learn of these transactions wherein the U.S. is furnishing the machines to other governments. Perhaps the best plan of all would be to reopen the whole case, investigate the legality of such supply, and if found illegal or unethical, recall all the devices which have already been given to Latin American countries and refuse any further requests for devices on the ground that the U.S. cannot legally furnish them. This would extricate us from the position in which we now find ourselves. Should those countries still want the devices and if they were told that they must purchase them from the Hagelin Company, they probably would not do so in view of the cost thereof. If, despite the cost, they decided to purchase the machines, they could ask the Hagelin Company to provide operating instructions with them, just as we did originally as part of the contract with Hagelin. Then, if it were decided that our communication security interests are paramount and if it were found that the operating instructions supplied by Hagelin were too defective for our own communication security, our next step would be obvious: give them better instructions. That, however, is a bridge we can cross when we come to it. On the other hand, if it is found legal and ethical for the U.S. to supply the foreign governments with this machine, then a decision as to whether communication security or signal intelligence interests of the U.S. shall have first priority in consideration should be made and the ASA can be guided accordingly.

8. The pros and cons of this whole matter are so involved and the subject itself is of such a nature that a policy decision ought to be made on the highest level. It is recommended:

a. That the legality of our supplying the devices to the Latin American governments be definitely ascertained.

b. That, if the legality is confirmed, the Director of Intelligence be requested to make the decision as to which of the two U.S. interests indicated in Par. 3 above shall be given primary consideration:

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- (1) If it is decided that our own communication security interests are to be given primary consideration, manuals identical with those already supplied the Peruvian Army be furnished.
- (2) If it is decided that our own signal intelligence interests are to be given primary consideration, special manuals of the type recommended in Par. 4 of Action 3 be furnished, viz., manuals without any detailed keying instructions, in which case the Latin American governments should be advised that furnishing such information is contrary to U.S. policy in such matters and that they should consult the manufacturer of the machines for assistance in drafting suitable keying and operating instructions.

c. That, if the legality of our supplying these foreign governments with the machines is not confirmed, the action to be taken in the premises be determined by the Secretary of the Army, as to whether the machines already issued be recalled or some equitable settlement be made with the Hagelin Company.

1 Incl
Draft of Instruction
Manual, Converter M-209

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