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DEC 21 1953

MEMORANDUM FOR: Chief, Technical Services Staff

SUBJECT: Customer Requirements for Electronic Cache Locator

1. The following comments are supplied pursuant to request contained in TSS memorandum dated 1 December, subject as above.

2. There is a need for a device to locate caches. Based on the information contained in the TSS memorandum, however, it appears that additional tests and additional development is required before any procurement should be undertaken.

3. At least three additional tests are required.

a. Under conditions of heavy snow (snow or drifts of snow at least two feet deep) when possible land marks are covered, a device could be of practical assistance in locating caches. Cold weather functioning and operating characteristics should be determined.

b. The device could also be of material assistance if it could locate cache dropped in water. Tests to determine its ability and characteristics in fresh and salt water at various depths should be run.

c. The detector should be tested to determine if it would stand the shocks encountered in aerial delivery.

4. Some modifications in design appear needed.

a. As designed the use of the device would be rather obvious. The substitution of a hearing aid ear plug for the earphones now required should be investigated. The need to expose the "coil" should be eliminated if at all possible.

b. The availability of fresh batteries presents a supply and resupply problem. The device must be designed to operate on batteries which might logically be expected to be procured in denied areas. Dependence on United States type batteries might severely restrict its use.

CLASSIFIED BY: [redacted]
UNCLASSIFIED BY: [redacted]
DATE: 6/19/81
REVISION: 907192

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c. Training of indigenous personnel to listen for a null seems to be a difficult procedure. In lieu of that system, it is suggested a positive signal be transmitted by the device, such as a buzz or a light flash, be developed.

5. Operationally, the issue of the detector should be closely controlled and issued only when the cache could not be found by the usual cache recovery methods. The transponder, however, would be placed in each cache.

6. It may prove infeasible, but the idea suggested here should be considered. Could this device incorporate a feature where it could serve as an inspection device to determine the moisture content or other deterioration factors present in the cache? The American Instrument Company, Silver Springs, Maryland, has an instrument called the "Hydrotector" which might be applied to this use.

7. Distribution of the TSS memorandum did not appear to include Deputy Director of Training (Special). It is suggested comments from that Staff be secured, as the device not only has training implications, but if the device is developed and procured, a training requirement for the device will develop.

8. When the replies from the other addresses are received, it is requested that a meeting between the TSS representative and the Paramilitary Operations Staff representative (Chief, Doctrine and Techniques) be held. The purpose of this meeting would be to discuss and analyze the replies and outline a course for further action on this matter.

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