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USCIB: 13.6/26

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31 March 1955

~~SECRET~~MEMORANDUM FOR THE MEMBERS OF USCIBEC:

Subject: Transmission of COMINT Unencrypted Over the Territory of Third Parties to the UKUSA Agreement.

Reference: USCIB 13.6/17 of 6 April 1954.

1. The reference was approved by USCIBEC at its 14th meeting on 29 April 1954 and accepted on 17 May 1954 by USCIB under the interregnum procedure. The matter has not been formally discussed since that time nor has the problem changed much meanwhile.

2. Accordingly the enclosed report is submitted for information with a view to discussion of this entire matter at the next regular meeting of USCIBEC.


RUFUS L. TAYLOR
Captain, U. S. Navy
Executive Secretary, USCIB

Enclosure

NSA Serial 2019
dtd 29 Mar 1955

USCIB: 13.6/26

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DEPARTMENT OF DEFENSE
WASHINGTON 25, D.C.

NATIONAL SECURITY AGENCY

Serial: 2019

29 MAR 1955

~~CONFIDENTIAL~~

MEMORANDUM FOR THE EXECUTIVE SECRETARY, USCIB

SUBJECT: Secure Film Carrier, Status Report

1. In accordance with your request at a conference on 23 February 1955, the following information on the progress and current status of the Secure Film Carrier is provided herewith.
2. Upon the dissolution of P.S.E.A., technical direction of Air Force Contract AF18(600)-999 with Patterson-Moos Company, Incorporated, was assumed by the National Security Agency. This contract was for the development of a destruction agent which would destroy safety film within one-half second. This limited the destruction agent to a very powerful reducing agent or to a very fast burning incendiary. Upon re-evaluation of the requirements the destruction time was relaxed from one-half second to 30 seconds. As a result, slower chemical methods were examined for the remainder of the contract.
3. The contract with Patterson-Moos Company, Inc., expired 9 October 1954. The contractor recommended two methods of destruction: incendiary and chemical.
4. Upon expiration of the contract, the Military Characteristics were again reviewed by National Security Agency. There were a series of delays due to some differences of interpretation of the M.C.'s and intended usage of the device. These differences have been reconciled and solicitation is now in progress for a succeeding contract. Appendix I, inclosed herewith, is the proposed program for the completion of the Secure Film Carrier Task. Appendix III is the Military Characteristics under which the Secure Film Carrier will be developed.

FOR THE DIRECTOR:

(Signed)
J. S. HOLTWICK, Jr.
Captain, US Navy
Deputy Chief of Staff
Operations

Incl:

Appendix I, II, III.

Enclosure with USCIB 13.6/26 dtd 31 Mar 1955.

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APPENDIX I

PROPOSED DEVELOPMENT PROGRAM

SECURE FILM CARRIER

Special Equipment Development Branch

1. INTRODUCTION:

a. This proposed development program has been prepared on the basis of existing knowledge of the requirements for a Secure Film Carrier. These requirements have been expressed in correspondence with USCIB, Military Characteristics prepared by COMSEC and specifications prepared by PSEA. It is felt that some of the requirements outlined in the above references are rather vague and some information desired is missing. In order to expedite the development program this proposal has been prepared with the full knowledge that it may be modified when additional information is received.

2. DISCUSSION:

a. It is planned to conduct the development of a Secure Film Carrier by a program consisting of five phases (Appendix II):

- (1) Phase I Test and Evaluation of Proposed Methods of Destruction
- (2) Phase II Design and Text of Engineering Models
- (3) Phase III Fabrication of Service Test Models
- (4) Phase IV Service Test
- (5) Phase V Evaluation of the Service Test, Redesign and Release for Production

b. It is proposed to complete Phases I and II by means of a fifteen-month contract, allowing six months for Phase I and nine months for Phase II.

c. It is estimated that the total contractual cost for Phase I and II will be \$115,000.

d. It is planned that Phases III, IV and V will be completed within 12 months after the completion of Phases I and II. Because of the need for clarification of requirements, no specific number of Service Test Models can be designated at this time. The same reason makes it impossible to be more specific on the conduct of the Service Test. It is estimated that \$50,000 will be sufficient to procure the necessary Service Test Models and provide for any redesign as a result of the Service Tests. Approximately \$35,000 is estimated for redesign, and \$15,000 for the actual fabrication of the Service Test Models.

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APPENDIX II

DESCRIPTION OF DEVELOPMENT PHASES OF SECURE FILM CARRIER

1. PHASE I. Test and Evaluation of Proposed Methods of Destruction

a. The contractor will fabricate suitable test containers and test the present proposed methods of destruction, i.e.

- (1) Fuming nitric acid reacting with zinc.
- (2) 60% nitric acid saturated with chromic acid.
- (3) Incendiary.

b. These tests will be conducted on the assumed module of 200 feet of 16 mm. developed microfilm and will be in sufficient quantity to give a statistical evaluation of the time required for destruction and the amount of destruction achieved. While conducting the tests, the contractor will study the complexities involved in the design of the container for the various destruction agents. This investigation will include the determination of the optimum size and shape of the container, the proper handling of the destruction agent and the type of actuating mechanism required (for shock, courier release and casual entry).

c. Upon completion of the tests the contractor will make a recommendation to NSA on the most desirable destruction method based on the following criteria:

- (1) The reliability of the unit firing 100% of the time.
- (2) The reliability of complete destruction of the information on the film.
- (3) The length of time the container with destruction agent can be stored.
- (4) The length of time the film can be stored without damage in the container.
- (5) The proposed locking device for the prevention of casual entry.
- (6) The proposed method for the unit firing by shock.
- (7) The overall estimated size and weight of the final container.
- (8) The hazards encountered when the unit is functioned in an aircraft.
- (9) The cost of the final container in production.

~~CONFIDENTIAL~~2. PHASE II. Design and Test of Engineering Models.

a. When Phase I has been completed and the destruction method selected by NSA, the contractor will design, fabricate and test a sufficient number of developmental models designed to meet the performance requirements of the purchase description. He will then build a sufficient number of models for final testing by the contractor and confirmation tests by NSA.

3. PHASE III. Fabrication of Service Test Models.

a. Upon completion of Phase II, the contractor will fabricate service test models (quantity to be determined at a later date), incorporating any changes indicated by the final tests.

4. PHASE IV. Service Tests.

a. Service tests will be conducted by the customer when the service test models are completed.

5. PHASE V. Evaluation of Service Tests

a. When the service tests are completed the comments will be analyzed by NSA and the changes will be incorporated into the Service Test Model drawings. The extent of these changes will determine whether additional Service Test Models are necessary or whether the unit can be released for production without further changes.

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APPENDIX III

MILITARY CHARACTERISTICS FOR A SECURE
CARRIER FOR CONVEYANCE OF MICROFILM

I - GENERAL INFORMATION

1. Objective

a. A secure carrier is required by the Armed Forces Security Agency for the transmission of special classified materials, photographed on microfilm, relating to the functions of AFSA.

2. Employment

a. The microfilm secure carrier will be used by officer couriers in the transmission of undeveloped**microfilm by air transport over Foreign territory to certain U.S. commanders.

II - OPERATIONAL AND PHYSICAL CHARACTERISTICS

1. Special Features

a. The microfilm secure carrier should be provided with a built-in means of accomplishing positive destruction of intelligence on the undeveloped**film. The secure carrier should be constructed so that the destruction agent will be released:

(1) By excessive shock (plane crash).

*(2) By any attempt by an unauthorized person to gain entry.

(3) At the convenience of the courier.

b. The secure carrier should permit disarming by the authorized recipient by means of a working combination.

c. The secure carrier should contain internal construction to permit as great amount of microfilm as possible to be stored in such a manner as to insure total intelligence destruction by the destruction agent.

d. The destruction agent should contain the following features:

(1) Compact.

(2) Simple mechanics for packaging and release.

(3) Good dissemination of the destruction agent to insure total destruction.

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(4) Indicate intelligence destruction, voluntary or involuntary, when released.

2. Limiting weights and volume factors

a. The secure carrier should be as light as possible in order that it may be easily handled by the courier. The volume of the secure carrier should be not more than one cubic foot.

* Modified by USCIB action to provide for casual entry.

**The M.C.'s will be modified to read developed or undeveloped, with developed preferred.