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AFSAC: 63/1

21

19 July 1950

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~~U.S. EYES ONLY~~MEMORANDUM FOR THE MEMBERS OF AFSAC:

**Subject:** U. S. - British Conference on the Exchange of Cryptographic Principles on a Reciprocal Basis.

**References:** (a) JCS 2074/2 dated 27 December 1949.  
(b) JCS 2074/3 dated 16 February 1950.

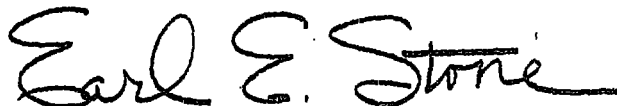
**Enclosures:** (A) Agenda for U.S. - British Conference on the Exchange of Cryptographic Principles.  
(B) Schedule of Specific Items to be Discussed in U. S. - British Conference on the Exchange of Cryptographic Principles.

1. The Enclosures, prepared in anticipation of the subject Conference as provided for in the references, are submitted to the members of AFSAC for their consideration.

2. In general, it is expected that the Conference will confine its deliberations to the limitations set forth in Reference (a), and will consist of exploratory discussions relative to the exchange of information by disclosures of models and designs of cryptographic equipments now under development in the categories set forth in Enclosure (A).

3. Enclosure (B) comprises a detailed schedule of specific items to be discussed with the British.

4. If AFSAC approves the content of the Enclosures, the Director, Armed Forces Security Agency will initiate proceedings by submitting the Agenda contained in Enclosure (A) to the Appropriate British authorities for their consideration and approval.



Copy to:  
Director,  
Communications-  
Electronics  
AFSAC: 63/1

EARL E. STONE  
Rear Admiral, U. S. Navy  
Director, Armed Forces Security Agency

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~~ENCLOSURE A~~

AGENDA FOR U. S. - BRITISH CONFERENCE ON THE EXCHANGE OF  
CRYPTOGRAPHIC PRINCIPLES

- a. Special Purpose Teleprinter Systems for the Exchange of Intelligence Material.
- b. Low Echelon (Minor War Vessels) Telegraphic Systems.
- c. Merchant Ship Telegraphic Systems.
- d. Meteorological Security Systems, Including Facsimile, Teleprinter and Telegraph.
- e. Voice Security Systems for Tactical Purposes.

It is proposed that each of the above types of systems be discussed according to the schedule set forth in the *Enclosure A* Appendix hereto.

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## I. Desirable Characteristics.

## A. General

1. Objective
2. Type or level of Employment

## B. Operational Characteristics

1. Security
  - a. Cryptosecurity
  - b. Radiation Security
  - c. Transmission Security
2. Functional Requirements
3. Radio Interference
4. Power Requirements
5. Special Requirements

## C. Physical Characteristics

1. Weight and Volume Factors
2. Operation, Transportation, Packaging and Storage Requirements
3. Destruction Requirements

## D. Operation and Maintenance Characteristics of Equipment

## E. Comint Implications with Respect to Consequences of Capture of Equipment

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## II. Present Equipment - U.S.

- A. Demonstration or Description
- B. Discussion concerning Adequacy According to I (Interim, Long-range, Emergency)

## III. Present Equipment - U.K.

- A. Description or Model Demonstration
- B. Discussion concerning Adequacy According to I

## IV. Equipment under Development - U.S.

- A. Description or Model Demonstration
- B. Adequacy according to I
- C. Present Status
- D. Plans

## V. Equipment under Development - U.K.

- A. Description or Model Demonstration
- B. Adequacy according to I
- C. Present Status
- D. Plans

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## ENCLOSURE B

SCHEDULE OF SPECIFIC ITEMS TO BE DISCUSSED IN U. S. - BRITISH  
CONFERENCE ON THE EXCHANGE OF CRYPTOGRAPHIC PRINCIPLES

1. It is proposed that the following equipments be discussed under each of the categories listed below. The Appendix hereto sets forth a brief description of some of the individual equipments.

- a. Special purpose teleprinter systems for the exchange of intelligence material.

ASAM 2-1

- b. Low echelon (minor war vessels) telegraphic systems.
- c. Merchant ship telegraphic systems.

AFSAM - 7  
MCMEO 3.3(h)(2)  
PL 86-36/50 USC 3605

Paper and pencil systems  
Strip systems

- d. Meteorological security systems, including facsimile, teleprinter and telegraph.

ASAX-2  
NRL Cifax  
GSP 3800A  
AFSAM - 7  
ASAM 2-1

- e. Voice security systems for tactical purposes.

Y-9

Y-4

Y-8 BuAer low-echelon ciphony system

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## Appendix to Enclosure B

| <u>SHORT TITLE</u> | <u>DESCRIPTION</u>  |
|--------------------|---|
| ASAM 2-1           | Teletype cipher device used with 131B2 subset table. Modified Army ASAM-1 or Navy CSP-1500.               |
| AFSAM 7            | Converter MX-507()/U. Low echelon, electro-mechanical off-line cipher equipment.                          |
| ASAX 2             | Facsimile security equipment for enciphering weather maps.  |
| CSP 3800A          | Modified CSP-3800 to provide encipherment of digits for weather traffic.                                  |
| MCM                | Mechanical Cipher Machine for low echelon literal requirements.   |
| Y-9                | Staff level ciphony system to provide speech security over short circuits serving various Staff Commands. |
| Y-4                | Low echelon speech security system.   |
| NRL Cifax          | Facsimile security equipment for the encipherment of weather maps.  |

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