MEMORANDUM TO DISTRIBUTION

SUBJECT: Telephone Requirements at the New AFSA Plant.

1. The purpose of this memorandum is to discuss briefly the general problem of telephonic communications for the new AFSA plant, and to submit for consideration a general plan which should meet all AFSA requirements.

2. The preliminary plan contemplates two exchanges, a 1000-line "black" system, and a 500-line "red" system. This was developed from present practice at AHS and NAVSECSTA. It is necessary to determine whether this is the best arrangement for the new AFSA plant.

3. "Black" exchanges are required by AHS and NAVSECSTA because the stations are in the Washington area, they are part of the comprehensive government exchange system, and there is a very large volume of telephonic correspondence between the stations and other government activities. All equipment on the "black" systems is owned and maintained by private telephone companies. The "red" exchanges are owned and maintained by the government. They are purely supplemental to the "black" systems.

4. At the new site the situation will be very different. The new plant will be located at a great distance from other government agencies. Except for administrative correspondence with local activities at Fort Knox, all calls from the new plant to outside activities will be long distance calls.

5. The "red" system in the new plant can be used for both classified and unclassified telephonic correspondence within the plant. The "black" system cannot. It would therefore appear advantageous to consider providing a "red" system large enough to handle all INTERNAL telephonic correspondence, classified or unclassified, and to limit the distribution of "black" telephones to those individuals or activities who are required and authorized to originate telephone calls to activities and agencies outside the main plant. In this connection it is necessary to bear in mind that normal classified and unclassified rapid communications of AFSA with outside activities, including the residual AFSA Washington organization, will be by teletype.
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6. Putting all AFSA new plant INTERNAL telephonic correspondence on the "red" system, and strictly limiting the distribution of "black" telephones, would have the following considerable advantages:

   a. Telephone costs would be sharply reduced by elimination of most of the dual telephone system.

   b. Adequate service would be provided to the great majority of users by installation of one telephone instead of two.

   c. Telephonic security would be enhanced because most users would be using the "red" secure system only. Accidental breaches of security due to forgetfulness would be decreased.

   d. An unclassified "black" telephone in a classified area is always a hazard because background conversations are picked up and transmitted without the telephone user being conscious of the fact. This hazard will be reduced in direct proportion as the number of black telephones is reduced.

   e. Strictly personal calls between persons in AFSA working spaces and outside telephones will be largely eliminated. Such calls are distracting to other workers and are a security hazard, as explained in d. above. Requirements for personal calls can be met by public booths. Furthermore, the necessity for calling people from their work to answer telephone calls from outside will effectively reveal those workers who have too many outside interests during working hours.

7. AFSA-13 therefore proposes:

   a. That the principal means for internal telephonic correspondence within the new AFSA plant be by means of a private "red" exchange.

   b. That the "black" or commercial telephone facilities installed in the new plant be sufficient only to provide means for communication between the AFSA plant and outside activities.
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c. That all requirements for telephone facilities for personal use be met by installation of commercial telephone booths in suitable locations throughout the plant, and the provision of means for notifying recipients of incoming calls.

8. If the above proposals are accepted it will be necessary to determine to what extent the switchboard arrangement must be revised. A study of telephone facilities now available to AFSA at the Washington stations reveals that there are as many as 4 instruments per line. This number is entirely too large for efficient operation. Economy of personnel can best be achieved by providing sufficient lines so that all busy users may have individual lines. Considering the foregoing, and in view of the scope of operations at the new plant, AFSA-13 proposes:

d. That the "red" telephone system at the new AFSA plant be installed initially to accommodate 1500 lines, with necessary space and facility arrangements to accommodate an ultimate total of 2500 lines.

e. That the "black" telephone system be installed initially as a PBX of 200 lines, capable of ultimate expansion to 300 lines.

9. There is not within the present AFSA organizational structure any provision for operation and maintenance of telephone systems, because such services are provided by the stations. The new AFSA plant will not be under any of the Services, and telephone service like other services must be provided from AFSA's own resources. The possibility of delegating to one of the Services (probably the Signal Corps) responsibility for operation and maintenance of the telephone plant has been considered and rejected for security reasons. It is essential that all personnel engage in operation and maintenance of the telephone plant be fully cleared and under direct supervision of the AFSA staff. Such clearance and supervision is obviously impracticable if an outside Service is charged with this responsibility. AFSA-13 therefore further proposes:

f. That operation and maintenance of the telephone system be a responsibility of AFSA-13.

10. Comment and recommendations on proposals a. through f. are requested.

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