

~~SECRET~~

Teletypewriter Adapter to AN/GSQ-2,3

1. Thru:
Director of
Communications
Research
- To:
Commanding
Officer,
SSA
1. Development Branch desires to undertake a research project to determine the means by which standard teletype-writer signals may be encrypted and decrypted by Speech Equipment AN/GSQ-2,3.
 2. Present knowledge of the AN/GSQ-2,3 equipment indicates that it would be possible to simultaneously encrypt and decrypt three channels of teletypewriters with a very high degree of security.
 3. If the results of this project prove that the use of a teletype adapter is practical, Development Branch proposes to obtain the military characteristics and approval by the services to undertake a development project.
 4. The Fiscal and Certifying Officer has stated that funds are available for this project.
 5. Approval of the inclosed project sheet is recommended and requested.

Incl.
Project Sheet 2011

Leo Rosen
Lt Col, SPSIF
22 December 1944
Ext 284

~~SECRET~~~~SECRET~~

SECRET**Teletypewriter Adapter to AN/GSQ-2,3 (Cont'd)**

2. **Commanding
Officer,
SSA**

1. This is intended to be purely a research project to ascertain the signal-communication carrying possibilities of the AN/GSQ-2,3 above and beyond its ciphony possibilities. The idea is that this piece of expensive equipment should be utilized to maximum extent and hence, during the hours when there is no need for ciphony usage, the equipment might be employed for other types of signal communication purposes.

2. One of the types which might be used to good advantage as a "filler-in" is the transmission and encipherment of teletypewriter signals. Although, as stated in paragraph 2 of action 1, it appears possible to do what is indicated therein, there are a number of technical problems which must be solved in order to determine the practicability of the proposed scheme. Questions of circuit design, whatever the system should be of the start-stop type of multiplex type, etc., must be answered.

3. In view of the fact that the whole field of ciphony is becoming one of increasing importance, investigation of additional possibilities of usefulness of equipment basically designed for ciphony purposes, seems a fruitful and useful field for research.

4. There is, of course, no urgency about this project and all that F Branch proposes at this time is to get this approved as a project so that future plans for work load and materiel procurement can be prepared.

5. Although I know you feel that F Branch now has a considerable number of projects under way, as you noted in the report for November 1944, a fair number

SECRET

~~SECRET~~

have been completed and will be shown as such in the December report. In the case of certain others, there is no more research or development work for F Branch to do on them, closing of the project depending upon action by outside agencies, as for example, the clearing up of patent rights, which can only be done when the contractor files his papers. In many cases the contractor is way behind in this work and we can do little to changing that situation. Therefore, I do not think F Branch is undertaking more than it can and should handle.

6. For foregoing reasons, approval of this project is recommended.

1 Incl: n/c

Wm. F. Friedman,
Dir of Com Res.,
28 Dec 44,
Ext. 215.

~~SECRET~~