

TO: AFSA-35 FROM: AFSA-351 DATE 29 August 1951 COMMENT NO. 2
Mr. Dumey

1. Noted.
2. Suggest that this report be forwarded to AFSA-31.

A. I. DUMEY
Head, Design and Procedures Branch

TO: AFSA-03 FROM: AFSA-14 DATE: 3 Oct 51 COMMENT NO. 3
CDR S. E. Hazelett/60389

1. Although the subject apparatus is intended for use primarily on low echelon wire circuits the probability of its use under circumstances of interest to AFSA is not considered so small as to warrant neglect of precautionary measures by AFSA in advance of such actual use.

2. I, therefore, strongly recommend that AFSA-03 initiate procurement action for at least a minimum quantity of the subject apparatus as listed below and make a thorough evaluation of its security features.

- a. 2 - Telecrypto Apparatus Type TKG 5/14 according to description No. 163e equipped for both 5 and 14 pulse operation.
- b. 2 - Stationary ETK tape telewriter according to data sheet GR tg 001.
- c. 2 - Carrier Frequency Attachment (TFA) according to data sheet GR tg 030a.

SUBJECT: Report of Trip to Wright Air
Development Center Re: Gretener Telewriter
(Cont'd)

TO: AFSA-03

FROM: AFSA-14

DATE: 3 Oct 51

COMMENT NO. 3

d. 1 - Converter 5/14 according to data sheet GR tg 146e.

3. Further details concerning this apparatus are available in the files of the AFSA Technical Library.

THOS. H. DYER
Captain, USN
Chief, Training Division

AFSA-351C/55

Report of Trip to Wright Air Development Center
Re: Gretener TelewriterAFSA-351
AFSA-35
AFSA-031E
AFSA-03A1
AFSA-03
IN TURN

AFSA-351C

27 August 1951
W.H. Turner, Jr./408

1. Mr. D. H. Shepard, AFSA-206, and I visited the communication and Navigation Laboratory of the Air Materiel Command at Wright Air Development Center, 23 August, to view a demonstration of the ETK Telewriter equipment developed by the Swiss firm of Dr. Edgar Gretener. In the absence of Mr. Weaver, the Head of the Section which procured the telewriter, Mr. Lawson demonstrated the equipment and answered our questions concerning it.

2. The model now at Wright Field is the portable tape printer. Mr. Lawson said that a contract has been placed to procure two of the page telewriters. The equipment is quite small and very nicely built. It seems to be quite rugged, and according to Mr. Lawson, it is highly reliable. Tests conducted at Wright Field have demonstrated that its speed of operation is fifty words per minute, and not sixty as alleged in the advertising. Setup time of a transmitter and receiver is practically nil when a telephone line connection is used. The mechanics of handling a transmission are extremely simple, so that an untrained operator could readily during a telephone conversation cut in the telewriter, cut it out, and resume conversation. This mode of use is Dr. Gretener's principle sales argument. The quality of the output from the point of view of resolution and legibility is excellent. The basic set of components from which the alphabetical and numerical characters are formed has been well selected and only one character, the letter J, offers any difficulty to the reader, and that only on first encounter. Mr. Lawson said that the equipment had been used on VHF circuits to determine the quality of the received message under various circumstances of distortion and interference. He said that the transmission had been successful and that no unrecoverable garbles had occurred until the distance between transmitter and receiver had been increased to approximately the VHF range limit.

3. Mr. Lawson said that officially he knew nothing whatever about the security equipment and that he was not supposed to talk about it. He said that unofficially he knew of its existence, and he knew that the Air Force Security Service knew of its existence. He knew of no plans to procure it.

4. I believe that the cognizant organizations within AFSA might well be interested in obtaining (1) two of the transmitter receiver sets, (2) two converters to convert the output to 5-baud form, and (3) two of the security equipments for examination. I base this partly on the novelty of the system, partly on its small size, partly on its conveniency and simplicity of operation, and partly on the possibility that some poor country may find it convenient to use for privacy purposes. On the last, I could not get an expression of opinion from Mr. Lawson, but I concluded that he and others in the Laboratory were somewhat surprised that the use of this equipment had not spread.

/s/ Warren H. Turner, Jr.
/t/ WARREN H. TURNER, Jr.
Head, Design and Modification Section