STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Harbo

FROM : I. W. Conrad

DATE: November 4, 1952

JUNE

SUBJECT: MICROPHONE AND TECHNICAL INSTALLATIONS IN U. S. EMBASSIES ABROAD
ESPIONAGE - R

Tolson
Ladd
Nichols
Belmont
Clegg
Glavin
Harbo
Rosen
Tracy
Mohr
Tele. Rm.
Nease
Gandy

SYNOPSIS:

Briefing on new type listening device to OSI district commanders by SA R. W. Swartz of the Laboratory on 11-3-52 handled per Director's instructions. This memo is for information purposes. Technical details are attached.

BACKGROUND

The memo from Mr. Belmont to Mr. Ladd dated 10-23-52 advised of General Carroll's request that the OSI technical men from overseas commands be briefed on the new type of listening device by FBI technical representative and the briefing was approved by the Director.

SA E. S. Sanders advised that the conference would be held in room 2431, Temporary U Building, 12th and Constitution, Northwest, and Lt. Colonel Yandoh was to be contacted there. This building area is in use as an OSI school.

DETAILS

The initial 45 minutes consisted of presentation of information and was followed by 15 minutes of questions and answers.

There is attached an outline of the material covered along with a summary of pertinent questions which arose.

The briefing appeared to be well received and Lt. Colonel Yandoh expressed his appreciation for it.

RECOMMENDATION

The above is submitted for your information and for record purposes.

Attachment

RWS:vrh

RECORDED - 40

105-19581/105-19581-38

13 NOV 21 1952

EX-110

CAVITY MICROPHONE

Description

Physical - picture
Operation - 1700 mc

Background

Problem encountered - heard on receiver
Search by use of audio
Discovery and installation - imbedded in a seal

Countermeasures

To locate and capture microphone
Active detection simulates actual operation

Transmitter (signal generator)
Receiver (aperiodic within band)

General procedure to be followed
Antenna patterns may vary
Physical cover for driving transmitter and receiver

Technical requirements

Operators must understand fundamentals of operation
Must be aware of possible variations in frequency and physcial shape
Must be able to handle local technical problems
Strong undesired local signal
Coorelation of available information with searches
"General understanding of microphone possibilities (other types)"
(only referred to as above, no elaboration)

Project current status

Microphone turned over to FBI
Examined and operated
NRL and FBI carrying on countermeasures development
Completion in week or two of prototype equipment and final technical report

QUESTION PERIOD

What can be done as a countermeasure until countermeasure equipment is available?

ANSWER: No technical help can be provided but it is suggested

ENCLOSURE 105-19581-38

that general security factors be reviewed in the meantime.

Does the unit appeared to be mass produced?

ANSWER: The unit was marked with the number "11" and parts were "drawn" by heavy machinery so the possibility of a number of units having been made is very good.

How far away can the enemy transmitter be?

ANSWER: FBI tests in the open gave 75 feet range with no specific design of the equipment used in the test but a theoretical range of 15 miles of 200 watts of power indicates that the practical range could be much more than 75 feet. Sending the radio signal through a wall is difficult and greatly reduces the practical range.

Were there 2 such microphones?

ANSWER: Only one to the speaker's knowledge.

Has a contact microphone on a spike been used as one of these devices?

ANSWER: The speaker does not know of any such use.

Does the enemy know when the device is being taken out?

ANSWER: Probably, as they can hear what is going on in the room and handling the device is clearly received.

Can strips of tinsel be used as an interim countermeasure?

ANSWER: It might be effective over a certain frequency band but would be of no help on other frequency bands.

Has a copy of the microphone been made?

ANSWER: The speaker has not seen it if it has.

The briefing was terminated when there appeared to be no further questions.