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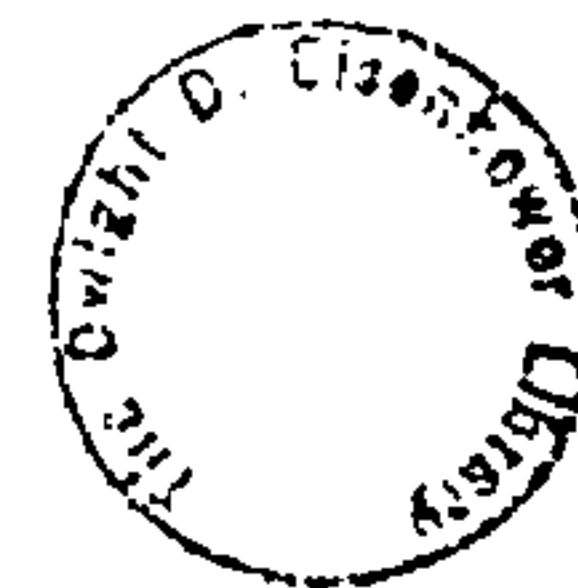
WHITE HOUSE ARMY SIGNAL AGENCY
THE WHITE HOUSE
WASHINGTON 25, D. C.

SIGWH

3 October 1960

SUBJECT: Secure Television.

TO: Brigadier General A. J. Goodpaster
Staff Secretary to the President
The White House



1. The equipment necessary to process a television signal into a form suitable for encryption and the National Security Agency equipment to accomplish this end have been manufactured and tested with satisfactory results.
2. The first equipment for operational use will be received by this Agency approximately 1 November 1960, and the second set of equipment will be available approximately 1 December 1960. The second set of equipment is to be installed at Headquarters, Central Intelligence Agency in accordance with previous instructions.
3. Requirements and recommendations for installation of the White House terminal are listed at Inclosure 1.
4. This secure television system, due to bandwidth requirements and the resulting cost factors, is designed to be transmitted over a microwave radio system. The system can be used, if desired, on existing microwave systems connecting the White House with Camp David and High Point. The first production run of equipment will provide a total of four terminals. It would be possible to establish a secure television system operating between the points previously mentioned but including the AJCC relocation site.
5. The system operational concept has resulted in completely flexible terminal equipments, anyone of which can be operated as a master station. Normal operation provides point-to-point communications between a designated master and one slave station; however, the master can transmit to all satellite stations simultaneously but will receive from only one satellite at any given time. The communications, both picture and voice, are on a full duplex basis.

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DECLASSIFIED	
Authority	<u>NUE 97-123</u>
By	<u>AMK</u> NLDDE Date <u>3/31/10</u>

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SIGWH
SUBJECT: Secure Television

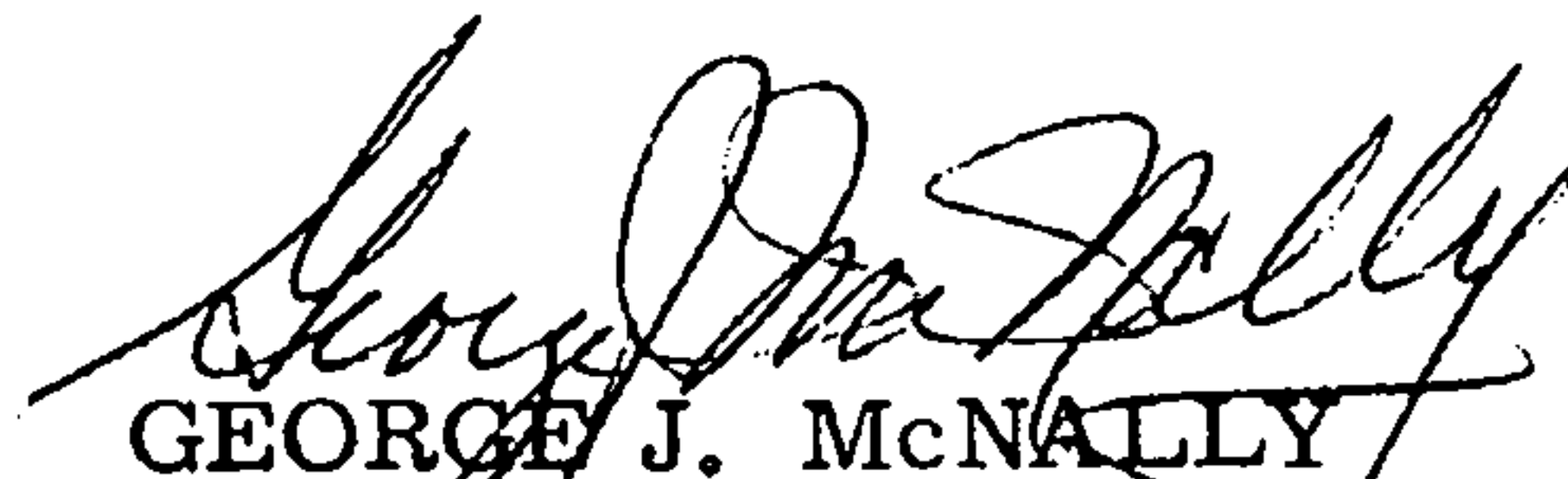
3 October 60

6. The user terminal is packaged as a piece of furniture of simple lines giving no indication of its function when closed. It has been designed for ease of operation on the part of the user. Included is a limited capability for transmission of written or printed material such as signatures on documents or memoranda.

7. Accompanying this memorandum is a copy of a comprehensive report on subject equipment which will provide details of any specific interest, including pictures of the user terminal and technical terminal for one station. Included are pictures of a test subject showing the original, the picture after it has been processed but not secured, and a reconstituted picture. The signal after the cryptographic process looks like noise and this process neither adds nor detracts from picture quality; therefore, the reconstituted picture is a valid example of a transmitted picture.

2 Incl

1. Requirements and Recommendations
2. Report

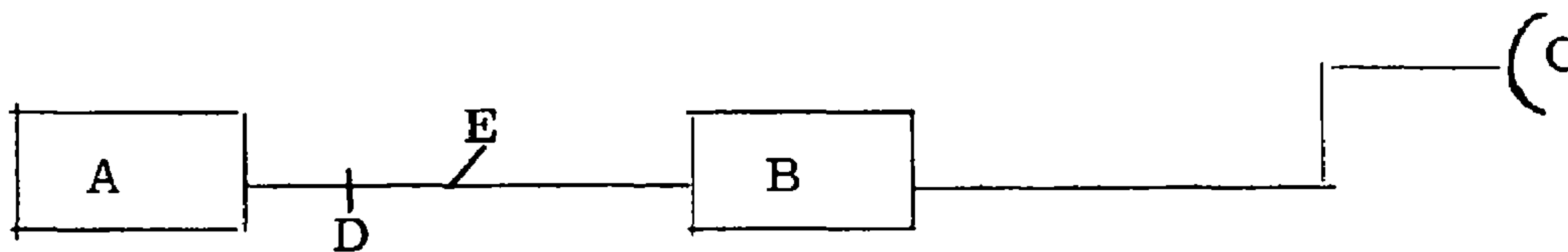

GEORGE J. McNALLY
Lt Colonel, Signal Corps
Commanding



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REQUIREMENTS AND RECOMMENDATIONS



- A - User terminal
- B - Technical terminal (must be operated in a secure area)
- C - Microwave radio terminal.
- D - Plug arrangement.
- E - Television cable.



The user terminal can be installed and left permanently in an office space under certain physical security conditions since the signal is in the clear from this terminal through cable E to terminal B where it is processed and secured. Cable E is a television camera cable approximately one inch in diameter and will present some installation difficulties in certain areas. The user terminal, since it has been mounted on casters, can be brought into an office space on demand and connected to the permanently mounted cable head of cable E.

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