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**SECRET**

SECURITY INFORMATION

16 September 1953

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MEMORANDUM FOR: THE RECORD

SUBJECT: Contract Monitor at [redacted]

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1. A meeting took place between [redacted] and [redacted] of [redacted] and [redacted] of [redacted] APD on 20 August 1953.

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2. [redacted] Transmitter: A butterfly unit has been built to act as the tuning circuit of an oscillator powered by a 2C39A vacuum tube. The frequency range of this oscillator should be from 500 to 2500 megacycles at ten watts power output. For higher frequencies the possibility of using a traveling wave tube is being investigated by means of clearances obtained through ONR. Should the use of a traveling wave tube not prove feasible, an oscillator using a 6BL6 is being built. This unit, however, will not have an output of more than a few hundred millivolts.

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3. [redacted] Receiver: The preamplifier on the previous receiver has been redesigned and rebuilt. The frequency band goes now from 1500 to 3500 cycles per second with peak gain of 140,000. The noise at the input is about 6 microvolts. An improved feedback circuit is being studied in order to increase the signal to noise ratio. An antenna study is also being carried out.

50X1

4. [redacted] The production of the ten units has been completed and delivered. The drawings and parts list have also been delivered. By redesigning IF transformers the sensitivity was improved over that of the two prototypes.

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5. [redacted] was very helpful in suggesting the best equipment for APD to purchase to setup a microwave lab. Because of the high cost of signal generators at this frequency it was agreed that use of the 6BL6 oscillator being designed in conjunction with another using a 6BM6 for lower frequencies might prove the most economical source of RF power for our measurements.

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6. Services were performed under the general services contract for mounting a mirror at the operational testing area.

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[redacted]

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TSS/APD

[redacted] - 1 DOCUMENT NO. \_\_\_\_\_  
APD - Chrono  
[redacted] NO CHANGE IN CLASS.   
[redacted] DECLASSIFIED  
CLASS. CHANGED TO: TS S (C) 2011  
NEXT REVIEW DATE: \_\_\_\_\_

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