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UNITED STATES GOVERNMENT

# Memorandum

EP 64-269

DATE: 23 November 1964

TO : The Files

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FROM : Mr. [REDACTED]

SUBJECT: Trip Report - [REDACTED]

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1. The purpose of this trip was to obtain firsthand information concerning systems developed by the above-mentioned companies and their capabilities applicable to our follow-on OWVL (One Way Voice Link) synthesizer program.

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The undersigned and Mr. [REDACTED] represented themselves as [REDACTED]

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[REDACTED] at both of the above establishments.

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At [REDACTED] the operation of their audio teaching machine and its possible application to our requirements were discussed in detail with Messrs. [REDACTED]

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[REDACTED]. The audio teaching unit operates with servo or solenoid-actuated heads on a tape loop that has one hundred and twenty-eight 4 second tracks. The servo-controlled head did not seem to be reliable. The solenoid-actuated slide bar of 16 heads was their approach to the problem to improve over the servo-controlled head. It seemed to work quite well, but the system as a whole is not very impressive in that it is very little different than our present system with the exception that the head is positioned automatically. The disadvantages would be in tape and head wear and its inability to handle our requirement for fast tape preparation.

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2. The system at [REDACTED] called the [REDACTED]

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[REDACTED] was seen and discussed with Messrs. [REDACTED], Manager, Advanced Program Development Electronic Systems; and [REDACTED], Supervisor, Digital Systems Development. The system consists primarily of 4 film strips, 32 tracks per strip with 7 seconds per strip. It accommodates message lengths of 0.6 to 4.2 seconds. Equipment consists of a photo tube which is illuminated through matrix shutter plates that position a light source on film strips attached to a rotating drum.

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[REDACTED] developed a system for the FAA for automatic weather broadcasting. This system has been functioning well. The advantage of the system is that there is no head wear and that a life of 1000 hours can be expected from one illuminating lamp. The lamp has a single hot filament and therefore has no alignment problems. The photo multiplier tube can withstand +20 volts variation with only 1.5 signal variation. There are two possible disadvantages: it is not known to what degree of ruggedness the system could be built; and all known methods to date for making master storage film strips are involved and costly. [REDACTED] has an idea in semi-breadboard form for a

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simpler unit, and the system quite possibly could lend itself to fast master tape preparation.

3. In summary, the [REDACTED] . . .

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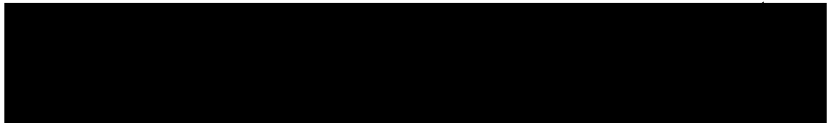
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3. In summary, the [redacted] systems do not look extremely promising, but it is advisable to allow both contractors an opportunity to propose on the follow-on OWVL system. 25X1A5a1



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