

STANDARD FORM NO. 64

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Office Memorandum • UNITED STATES GOVERNMENT

TO : The Files

DATE: 10 May 1957

FROM :

[Redacted]

SUBJECT (AS-3 -

[Redacted]

- Trip Report

8 May 57)

1. General - A visit was made to [Redacted] on 8 May 1957 to inquire into progress on the AS-3 development. Present for talks were:

[Redacted]

2. Progress - The contractor is behind schedule in development progress of the AS-3 transmitter, keyer, and coder design. This later is acknowledged by partial payment invoices which indicate a 17 per cent expenditure of money and a 45 per cent expenditure of time. Company representatives were called into Washington by the Chief, R&D, to discuss plans for an accelerated development schedule. In a phone conversation this date [Redacted] advised that the company's president, [Redacted] has approved hiring additional engineering personnel, and [Redacted] a deputy to [Redacted] said in similar discussions that consultation time of [Redacted] would be increased. [Redacted] said that a plan for a speeded-up program would be in the mail next week.

3. Progress Reports - Comments were sought on the company's latest progress report. The company was informed that the fourth Progress Report was a great improvement over previous bi-monthly reports, and further improvement could be realized by including factual data on test results, problems encountered, and otherwise account for the engineering time expended during the reporting period. It was suggested that a brief summary of data already existing in their engineering project notebooks would be satisfactory.

4. Packaging - Lengthy discussions concerned proposed packaging techniques which concern (1) human engineering for functional operation and (2) a universal connector for system

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packaging. The human engineering emphasis discussed with [] in a Washington conference was reviewed. This matter is of particular importance since the specifications describe packaging requirements in terms of transport rather than functional operation. In project monitoring the undersigned had favored concentration on electrical performance requirements, leaving system packaging problems to be resolved when the GFE receiver and tape printer become available. The plan for a universal connector for system packaging is a suggestion. The plan involves [] only as far as the AS-3 is concerned, but because probable production components (TP-3, RS-11A/B/C, RS-11AA/BB, power supplies, etc.) are involved the suggestion is quite broad in scope. A Staff Study is being prepared for R&DPRB consideration.

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5. "Checkerboard" Connector - In any event AS-3 system requires a unique inter-component connector system even though the receiver and tape printer be exceptions. A "checkerboard" connector (similar to that used on the [] equipment - [] has been suggested and [] has been asked to contact the developer, [] favors this scheme and said they had such a plan for their own line of equipment. They will visit [] next week. The connector cancels out the use of cables for interconnection between components in system assembly. If the connector is made "universal" it provides for diversified system packaging.

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6. Transmitter - Transmitter design currently concerns a pi network for antenna coupling. [] discussed test procedures with [] engineers showing appreciative concern. [] decided that their artificial loads in their present configuration were reactive and would use a ladder construction with operation in free space as suggested by []. The company also agreed to monitor crystal current and a simple test instrument was described. Reactive loads were also discussed and the problem of measurements with a load having phase angles of plus or minus 45° were said to be under study. Since the specifications state that tests are to be made at the high, low, and center of each band, and [] is using only a single band to cover 3 to 30 mcs, [] asked for tests at each octave. The company concurred.

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7. Coder - The engineering model of the coder is not yet complete, but some electrical tests have been completed which the company feels indicate satisfactory design. The tape read-off voltage was said to be 25 millivolts, which is believed to be marginal. Since 40 millivolts can be obtained with a 60 WPM tape speed, it was suggested that some redesign of the take-off

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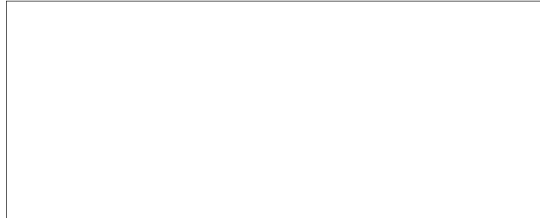
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head might raise this voltage considerably at ^{the} 300 WPM tape speed.
Read-through does not appear to be a problem.

8. Vacations - The engineering staff at will take staggered vacations. The production facility will be shut down 5-19 August for summer vacations.

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cc: R&D Subject File
Monthly Report (2)
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