

UNITED STATES GOVERNMENT

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Memorandum

EP 64-263

TO : The Files: Contract 151, T.O. 13

DATE: 9 November 1964

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FROM : Mr. [REDACTED]

SUBJECT: Trip Report - KE-29 with [REDACTED]

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1. Project Description:

The KE-29 is a 1200 WPM Baudot keyer. Approximate dimensions for the keyer are 3 $\frac{1}{4}$ " x 2 $\frac{1}{2}$ " x 1 $\frac{1}{4}$ " and 12 volts DC at about 250 MA is required for the motor and the electronic circuitry. CA-3 cartridges f/u/w the keyer are prepared by a modified CO/A-8 which has been redesignated CO-29 coder.

2. Contractual Information:

- a. Initial Cost: \$27,938.32 Increase In Scope: \$11,382.45
- b. Request for Procurement Action: 11 March 1964
- c. Initial Date: 10 April 1964
- d. Completion Date: 1 October 1964
- e. Deliverable Items: 20 Service Test Models

3. Date of Meeting: 29 and 30 October 1964

4. Place of Meeting: [REDACTED]

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5. Persons Attending:

Agency

Non-Agency

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Mr. [REDACTED]
Mr. [REDACTED]

Mr. [REDACTED]
Mr. [REDACTED]
Mr. [REDACTED]
Mr. [REDACTED]

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6. Contractor's Performance:

- a. On schedule and expected to remain so: No
- b. Within obligated funds and expected to remain so: Yes
- c. Satisfactory technical progress: See Project Status

7. Project Status:

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Skokie, Illinois

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7. Project Status:

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[REDACTED] had received three electronic modules from [REDACTED] just a few days before this visit. One of the units works satisfactorily and was installed in a KE-29 for demonstration purposes. This unit cannot be delivered until after environmental testing has been completed. The other two modules have the undesirable characteristic of locking either in mark or space condition. This malfunction has not been traced down; however, it is suspected that voltage variations caused by the motor loading the power line may be the cause. Earlier in the program erratic keying caused by motor noise was considered serious, but this problem appears to have been conquered. Additional electronic modules are scheduled to be shipped from [REDACTED] on 3 November.

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A visit was made to [REDACTED], on 12 October to monitor progress on KE-29 thin film circuitry and other projects. Mr. [REDACTED], were present at [REDACTED] for this discussion. At this meeting we discovered the project was being held up by a delay in delivery of the integrated circuit audio amplifiers which are to be incorporated in the thin film module. All the other components were available at this time and the first unit had been built-up as far as possible. Tests could not be made for lack of the integrated circuit and this accounts for the delay in the program.

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The thin film module for the KE-29 is unique because it uses "thick film" and uses both sides of the substrate. This economical use of space had not been attempted at [REDACTED] prior to this project. The thick film technique, utilizing silk screens for circuit deposition instead of vapor deposition, results in a lower cost electronic package. It was somewhat of a shock to the discover that [REDACTED] was using N.E.C. (Japanese) transistors and integrated circuits for this application. The contractor was questioned about the quality of these foreign components and he justified their use based on tests conducted by [REDACTED] and also by the fact that they are inexpensive compared to American equivalents. A copy of the [REDACTED] report is on file in this office.

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Distribution:

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(9 November 1964)