

UNITED STATES GOVERNMENT

Memorandum

TO : The Files: Contract No. [REDACTED]

EP 66-275

DATE: 27 December 1966

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FROM : Mr. [REDACTED]

25X1A9a

SUBJECT: Inspection Report No. 2 - CV-24 Converter [REDACTED]

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For The PD-2

1. Project Description:

The CV-24 is a dual channel, IF converter capable of converting inputs of 500 kHz, 455 kHz, or 100 kHz to either 10 kHz, 15 kHz, or 22 kHz. Separate identical converter channels are provided so that two receivers may be operated in diversity pairs for reception of ON/OFF CW signals at 300 WPM. Both headphone and loudspeaker operation are provided. The following technical characteristics are applicable:

Input impedance - 50 ohms and high impedance for bridging (each channel)

Output impedance - 600 ohms each channel

Power requirements - 10 watts, 120 volts $\pm 10\%$, 50/60 Hz, single phase

Dimensions - 19" rack mounting

Weight - under 10 lbs.

2. Contractual Information:

- a. Initial Cost: [REDACTED]
- b. Request for Procurement Action: 28 June 1966
- c. Initiation Date: 29 June 1966
- d. Completion Date: 30 December 1966 - Phase I
- e. Deliverable Items: Phase I - One prototype
Phase II - Ten service test models

3. Date of Meeting: 19 December 1966

4. Place of Meeting: [REDACTED]

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5. Persons Attending:

Agency

Non-Agency

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Mr. [REDACTED]

Mr. [REDACTED]

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EP 66-275

SUBJECT: Inspection Report No. 2 - CV-24 Converter with [REDACTED]

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6. Contractor's Performance:

- a. On schedule and expected to remain so: Yes
- b. Within obligated funds and expected to remain so: Yes
- c. Satisfactory technical progress: Yes

7. Project Status:

The CV-24 prototype was sent to the Laboratory for an A&A during the latter part of November. A preliminary evaluation of the converter resulted in the discovery of several areas of poor workmanship (excess solder, loose screws, components tied together in mid-air, etc.). Since these problems did not directly affect the performance of the converter, the A&A was continued.

However, further evaluation uncovered several areas in which the CV-24 did not meet specifications. Intermodulation distortion was found to be only 20 db down below the level of two equal amplitude in-band signals, although the specifications required the distortion to be at least 40 db down. One channel has too much crosstalk. In addition, excessive 60 cycle hum still prevails in the audio demodulator section; this was brought to the attention of the contractor when the converter was in breadboard stage but evidently was not completely eliminated.

The CV-24 converter was returned to the contractor for rework and is expected to be returned to this Office by 27 December 1966.



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For the PD-2

25X1A9a OC-E/R&D-EP: [REDACTED]

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