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S-E-C-R-E-T

Service Contract
Work Order Requests

8-075

Date: 21 April 1958

TO : Chief, Research and Development Branch, OC-E
FROM: Chief, ELINT Activities Branch, OC-SP

1. Description of work requested: Fabrication of thirty (30) each, highly stable 1000 cycle reference oscillators. The units should be completely transistorized, and use a high precision tuning fork as the frequency determining element. The oscillators should be battery-operated by either a dry cell or mercury cell and should have a feature to permit remote operation.

2. List drawings, sketches, or samples accompanying requests:

- a. Electrical and mechanical specifications
- b. Wiring diagram (electronics)
- c. Mechanical drawings and parts list
- d. Sample oscillator

25X1

These items are available at 1414 Curie Hall.

Requested by

[Redacted box]

Chief, SP/EA

Contractor's Price estimate \$ 11629.00

25X1

Contractor's Delivery estimate 19 August '58 days after receipt of order.

Estimate accepted by

[Redacted box]

Work Order No. 3 issued _____

Contractor _____

For further information, please contact

[Redacted box] 1414 Curie Hall [Redacted box]

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Addressee: 1 copy only

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Electrical Specifications - 1 kcs. Reference Oscillator:

1. Power Source: Z cell or mercury cell RM-5012R
2. Battery Polarity: Not applicable
3. Output Impedance: 2000 ohms
4. Stability: 1 part in 10,000 over specified temperature range
5. Output level: 35 mv. across 2,000 ohms (earphone)
100 mv. across 5,000 to 100,000 ohms (recorder)
- 6
6. Temperature Range: -40° to $+40^{\circ}$ C.
7. Warm-up Time: 45 seconds
8. Local Controls: Power - on/off switch
Output - push button
9. Remote Controls: Power - on/off
(not furnished) Output - push button
Remote battery

Physical Specifications:

1. Dimensions (overall)
Length - $4\frac{5}{16}$ in.
Width - $2\frac{1}{4}$ in.
Height - $1\frac{1}{32}$ in.
2. Weight - 14 oz. including battery

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FABRICATION OF A 1000 CYCLE REFERENCE OSCILLATOR

I. Requirements

1. General. This requirement demands a highly stable 1000 cycle reference oscillator. The units shall be completely transistorized, and use a precision tuning fork as the frequency determining element. The oscillators shall be battery operated by either a dry cell or mercury cell and should have a feature to permit remote operation.
2. Electrical.
 - a. Power source: Z cell or RM-500¹2R mercury cell.
 - b. Battery polarity: none
 - c. Output impedance: 2000 ohms.
 - d. Stability: 1 part in 10,000 over the specified temperature range.
 - e. Output level: 35 mv ^{OK (rms) - ?} across 2,000 ohms (earphones)
100 mv across 5000 to 100,000 ohms (recorder).
 - f. Temperature range: -40 degrees to ~~40~~ 40 degrees centigrade.
 - g. Warm up time: 45 seconds.
 - h. Local controls: Power - on/off switch
Output - push button.

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- i. Remote controls: Power - on/off
(not furnished)
Output - push button
Remote battery.

3. Physical.

- a. Dimensions: Length, 4-5/16"
Width, 2-1/4"
Height, 1-1/32"
- b. Weight: 14 oz., including battery.

II. Deliverable items.

A quantity of thirty (30) reference oscillators shall be fabricated. If necessary, a revised parts list will be submitted to the customer.

III. Government Furnished Equipment.

- a. Electrical and mechanical specifications.
- b. Schematic diagrams.
Mechanical drawings and parts list.
- d. Sample oscillator.

IV. Instructions to the Contractor.

The contractor will submit a letter of proposal to the customer including a cost breakdown estimate and delivery date (preferably, on or by 30 June 1958). This equipment is UNCLASSIFIED, however, its association with the contract or the contracting organization is classified SECRET.

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