STANDARD FORM NO. 64

Office Memorandum CONFIDENTIAL UNITED STATES GOVERNMENT

TO : The Files - RD-76, Task Order I

DATE: 18 November 1959

FROM : [redacted]

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SUBJECT: Time Event Marker, IN-[redacted] ILLEGIB

1. On 5 November 1959 the writer visited the [redacted] The purpose of this visit was to monitor the progress on this task. The progress was discussed with the following cognizant personnel:

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[redacted]

2. The subject task provides for the fabrication of 15 IN-7 time event markers (TEM) and the development of one ruggedized IN-7 prototype (TEM-A). Initial development of the IN-7 was accomplished under RD-76, Task Order C. The TEM and TEM-A are miniature time code generators controlled by a watch movement. In the TEM the watch is driven by a manual wind negator spring which when fully wound will provide operation for a 60-day period. In the TEM-A the watch is driven by an electrically operated solenoid which pulses the watch winding mechanism once per minute. In this manner, operation of the unit will continue for a period determined by the life of the external battery source. When TEM or TEM-A is electrically interrogated, a series of pulses is presented at the output terminal. This is a binary coded time group representing the number of elapsed minutes from the time of activation. The TEM and TEM-A will be used with ELINT systems to denote the time that sample signals are recorded.

3. The contractor is still experiencing difficulties in fabricating 15 IN-7 prototypes. The primary trouble still remains the same, operation at room temperature of the remaining 12 units has been satisfactory however very precise adjustment is necessary to get the units to function properly at low temperatures. This has been extremely time consuming and costly and it appears that at the present rate of progress the contractor will not remain within the contract time and funds. The original contract provided $31,440 and due to the difficulties experienced by the contractor the contract was ammended to increase this by $13,585. It had been previously suggested by the contractor that by relaxing the low temperature specification from -30°C to 0°C $5,000 of the $13,585 could have been saved. This was presented to OC-SPS/EA for consideration. A decision based on the savings per unit, which is low for what may have been bought, was made and the -30°C specification was not relaxed.

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4. [redacted] was questioned as to the present status of the 12 units and has stated that all units are completely assembled and have been checked for operation at room temperature. Several units were checked at low temperature operation and failed to perform properly. Considerable time has been spent on these units and they still have not passed the low temperature specification. [redacted] was requested to run low temperature checks on all units, taking them down in increments to -30°C, and report to the writer the results of these tests. At this time the contractor will make an evaluation of the remaining funds and the work to be accomplished to determine if additional funds and time are required. It is suggested by the writer that at this time an evaluation be made to determine if the specification should be relaxed.

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5. Progress of the ruggedized IN-7 was discussed and the present status is:

a) The unit has been completely serviced and checked and is ready to be cased and the final testing performed.

b) Case design is in the final stage.

c) The moisture indicator and housing has been selected and is ready for incorporation in the IN-7 case.

d) The nitrogen purging adapter kit has been designed and a procurement source for spare nitrogen bottles has been located.

e) A storage and shipping case for the IN-7 and accessories is being procured.

6. The moisture indicator is a small desiccant package contained in a removable housing which screws into the back of the IN-7. A plastic window is provided for viewing the indicator. The nitrogen purging kit consists of an adapter which replaces the indicator package. A small nitrogen bottle is screwed into the adapter and is punctured by a needle valve to release the gas into the IN-7. A screw in the front of the IN-7 is removed to allow the atmosphere in the unit to escape and be replaced by the nitrogen. One bottle contains eight times the volume contained in the IN-7. After purging is completed the screw and moisture indicator are replaced.

7. The storage and shipping case for the IN-7 is a hinged wooden box with a securing clasp. It is large enough to provide foam mounting for shock protection and contain the IN-7, mating connector plug, two spare moisture indicator units, two spare nitrogen bottles and the nitrogen purging adapter.

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8. The completed ruggedized IN-7 is scheduled for delivery 4 December 1959. The contractor was requested to notify the writer of the IN-7 status two weeks prior to the scheduled delivery date so that the necessary arrangements for evaluation can be initiated.

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