

OAN COPY

**TREASURY DEPARTMENT
UNITED STATES COAST GUARD**

ADDRESS REPLY TO:
**COMMANDER
17TH COAST GUARD DISTRICT
P.O. BOX 2831
JUNEAU, ALASKA**



e
10553.3
22 January 1965

• From: Commander Seventeenth Coast Guard District
To: Commanding Officer Loran Transmitting Station Ocean Cape
Subj: IL7 Loran-A Recorder Charts for period 1-31 December 1964;
discrepancies in
Ref: (a) COMMANDANT INSTRUCTION 3123.5

1. The subject charts for your command have been reviewed in conjunction with charts from Spruce Cape, and the following discrepancies were noted:

a. The Elapsed Time Indicator entries on the charts do not agree with entries shown on your Report of Loran Station Operations and Electronics Engineering (CG-2899) covering the same period. The recorder chart shows 111.5 minutes local-blink and 120.7 minutes off-sync; however, the report shows 80.8 and 108.7 minutes respectively. It is believed that the differences are due to subtraction from the meter readings times which the station considers useable although they are recorded as bad time. This practice is not in accordance with instructions contained in reference (a) and shall be discontinued. The report shall contain all times shown on the meters. If instructions contained in the equipment technical manuals are followed when making the Electrical Synchronizer Unit adjustments, there should be very little time registered on the meters due to equipment checks and adjustments. Also, in order that the maximum amount of information will be available for future reference, the ETI reading from the AN/FPA-3B should be placed on the timer recorder chart at the beginning of each new day and clearly identified as "OFF AIR ETI _____".

b. 1 December entry shows two (2) Master Oscillator adjustments on the on-air timer which caused a corresponding shift at the slave. The oscillator frequency on the on-air timers should not be changed indiscriminately after the frequency has been matched with WWV in accordance with existing instructions. If proper procedures are followed, standby-timer frequency should be matched with WWV and then placed on air after notifying the slave station to expect a frequency change. The slave station would secure the electrical synchronizer and adjust his on-air timer frequency to match the master's new frequency prior to returning to auto-sync. After that the frequency is not changed at the master until the next WWV check.

c. Various of the abbreviated entries are questionable as to meaning. For instance, on 1 December the off-sync pen actuated and an entry of "ELEC. EROR." was placed beside the mark. Loran Station Operating and Maintenance Instructions (CG-155) and Aids to Navigation Manual (CG-222), Appendix C, provide standard abbreviations to be used on the charts. Conditions not covered by these abbreviations should be described in clear terms which are understandable at a later date.

d. Off-air time entries should be split to show time actually off air and time out of synchronization prior to normal operation in lieu of lumping all time into one off-air entry.

e. 1840 - 4 December entry covers off-sync condition but fails to state whether master or slave jumped synchronization. 2224 entry on same date duplicates this discrepancy and also indicates equipment malfunction which is not explained. If controlled automatically by the Electrical Synchronizer the local-blink pen should not actuate until the phase dial in the Synchronization Control Unit has reached ± 2 microseconds. However, this entry shows blink while still within tolerance.

f. 8 December 1350 entry shows slave off-sync 4.9 minutes; however, the slave chart shows off-air for this period. This entry would tend to indicate that the watchstander was absent from the equipment and failed to return during the time the slave was off-air. From the needle movement on the chart it appears that the equipment was not touched during this period and the normal operation was resumed after the slave came back on air and into sync. This same situation appears again in 9 December 1340 entry. In both cases the slave experienced a primary power failure, so in neither case should the slave have been back on air before the watchstander at your station was able to respond to the remote alarms.

2. The number and scope of the above discrepancies indicates a general lack of supervision of the electronic and watchstanding personnel. You shall take action to prevent recurrence of these discrepancies, and to familiarize the cognizant personnel with operating and engineering procedures spelled out in:

- a. COMMANDANT INSTRUCTION 3123.5 and 3123.6.
- b. Loran Station Operating and Maintenance Instructions (CG-155).
- c. Appendix C to Aids to Navigation Manual (CG-222).

CCGD17(e) ltr 10553.3 of 22 January 1965

3. The recorder charts covering the period 1-31 December are required for comparison purposes at Spruce Cape during a forthcoming District inspection, and will not be returned to you until approximately 15 February.

T. G. BYRNE
By direction

Copy to:
LORSTA Spruce Cape