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UNITED STATES GOVERNMENT

Memorandum

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J15-2/EF20C

TO : Chief, Aids to Navigation Division

DATE:

NOV 15 1963

FROM : Chief, Electronics Engineering Division

SUBJECT: Loran-C operations in the Mediterranean Chain; information concerning

1. Enclosure (1) is a series of excerpts from two trip reports of recent visits to the Mediterranean Chain by a representative of the Loran-C Branch, EEE, (LCDR BAETSEW). The first of the two visits was from 6 to 23 June 1963 in which visits were made to four of the six Loran-C transmitting or monitoring stations. The second visit was from 23 to 27 September 1963 to the Section Office. In addition, LCDR BAETSEW has visited offices and/or stations of the Northern European Chain, Hawaii Chain, Alaskan Chain and East Coast Chain.

2. These trip report excerpts indicate that many questions exist on the part of the operating units as to the correct methods of operation, and individual responsibilities. It is therefore recommended that a standard Loran-C Instruction Book be promulgated. This book should be similar to CG-155, Loran Station Operating and Maintenance Instructions, which pertains to Loran-A only. The calibration and operation section of the Loran-C Branch is available to furnish assistance in this task as required.

R. P. ...

OAN DIVISION	
CHIEF	<i>[Signature]</i>
5 ASST	<i>[Signature]</i>
PLAN	
HYDRO	

Trip Report Excerpts

1. The CHRELE and ETC attached to MEDSEC were misinformed concerning the parameters of Loran-C secondary group velocity and its effect on the envelope measurement at various stations. They also were transferring false information concerning the effects of conductivity and noise on system operation. These two people should have known the proper parameters since they were instructors at the Loran-C schools in Wildwood and/or Groton.
2. Before his departure, CAPT PEARSON had secured many of the reports from the transmitting and monitor stations. These reports were gradually being reinstated by LT WINN so that he could better understand the control of the system. Since many of the personnel at the stations had never made out the reinstated reports, a bit of confusion existed as to the exact methods to be employed and the reasons for the data.
3. It appears that many of the stations are not carrying out proper preventative maintenance procedures. Most of the maintenance is of the corrective type, e.g., when the equipment fails, repair it but do not check to see the effects of the repair. Most of the personnel on the stations are not familiar with the equipment to the extent that they will readily accomplish and alignment as a matter of routing. This was evident in particular at the Sardinia monitor where the MEDSEC ETC found the receivers to be completely desensitized in the envelope channels by AGC voltage errors, power supply voltages errors and general lack of proper equipment care. It appears as though the station personnel are becoming entirely too dependant upon visits of MEDSEC personnel to repair and maintain the equipment.
4. MEDSEC office was not collecting enough information from the stations to evaluate the long term performance of the system. The data was not being plotted to view the changes in the system from the standpoint of cross checks on the monitor data. They were coached to what data has the most meaning, what additional data would help, and what techniques of education could be used to better inform the personnel at the stations.
5. Personnel at the stations are not trained in system operation. They have received a minimum of training in equipment maintenance. The amount of system training is even less. The Commanding Officers of the station have absolutely no responsibility for the operational functions of the stations. All the responsibility falls on the personnel in the Section Office. This is like saying that the Commanding Officers of ships have no operational responsibility for their vessels but that the responsibility lies with the District Operations Officer.