

OAN

AL/1-1

18 November 1958

Via : Chief, Shore Units Division
Chief, Electronics Engineering Division
Chief, Aids to Navigation Division

LORAN-B Station; personnel requirements

1. The Coast Guard is engaged currently in an advanced paper-work study of the LORAN-B program. At such time as LORAN-B is given a firm status by the CNO Shore Station Development Board, final planning including detailed site surveys, will be accomplished.
2. Although final personnel allowances for a particular station can only be developed after completion of the detailed site survey, it is suggested that a tentative standard LORAN-B station personnel allowance be developed. This will enable planning, including cost estimates furnished the Navy, to be as intelligent as possible.
3. Enclosure (1), a proposed personnel allowance for LORAN-B stations, exclusive of microwave stations, is forwarded for your consideration and comment. This allowance is based upon a one man electronic watch and a requirement to have a one-man security and/or safety watch. It is further proposed that the stations be commanded initially by Commissioned or Warrant Officers; with a strong probability that the ETC will eventually take charge.
4. By endorsement hereto, Chief, Electronics Engineering Division is requested to suggest a typical personnel allowance for a LORAN-B microwave station.

15/
N. W. SFROW
11/19

Encl: (1) Proposed Standard LORAN-B Station
Personnel Allowance

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FIRST ENDORSEMENT ON CHIEF, AIDS TO NAVIGATION DIVISION Memo
OAN A1/1-1, 18 November 1958

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N. to H.	
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From: Chief, Electronics Engineering Division
To : Chief, Shore Units Division

Subj: Loran-B Station; personnel requirements

1. The Electronics Engineering Division agrees that it is advisable to develop tentative standard Loran-B station personnel allowances to facilitate cost estimating, establish physical sizes of buildings and otherwise aid advance planning. This Division concurs with the proposed standard complement for a standard (not microwave controlled) station. It appears to be adequate for this present stage of planning and is flexible enough to be modified for each of the many different proposed Loran-B site situations.

File with only correspondence.

2. The following additional comments are stated at this time and reflect current opinions relative to the Loran-B system:

- (a) This Division concurs that Loran-B stations be initially commanded by Commissioned officers or warrant officers. The first two or three networks to be manned should properly have Commissioned officers at all stations of the network until the Coast Guard gains adequate operating and technical experience with Loran-B. Later these complements could be reduced to a commissioned officer at each Master Station and warrant officers at slave stations. At this time it is doubted that ETC's will ever be adequate officer's in charge of a Loran-B station. This observation is based on the fact that Loran-B precision equipment has advanced the state of the art to a degree beyond comparison with the brute force technology of Loran-A equipment. The training required for operation and the degree of attention to detail demanded by equipment which discriminates to the rf cycle, and then compares phase to a few degrees within that cycle, is growing in the same geometric manner as the complexity of equipment. Station supervision by more senior authority is definitely indicated.

- (b) It is envisioned that a Loran-B station will require a continuous technician watch. This man, of course, would perform day work during waking hours with a sleep-in watch at night. Alarm bells would awaken him for equipment malfunction. A seaman safety watch would be required at night as it is contrary to safety regulations for the technician to service equipment alone.

How 'bout Folly Island now?

3. The use of microwave links to synchronize and control the satellite transmitting stations of a Loran-B triad was conceived with the idea that

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the construction costs and logistic requirements for each triad would be considerably reduced by concentrating the control and monitoring functions at one site in these triads. Personnel requirements for each monitor control station would therefore be increased because of increased quantity of equipment (Loran-B station electronic equipment is tripled), with the resulting increase in maintenance and watch-standing workload compared with a basic Loran-B station. The satellite transmitter stations will not require watch standers, but additional personnel must be provided for equipment, station, and grounds maintenance and may be required for security.

4. It is therefore suggested that for a monitor-control station the proposed personnel allowance, enclosure 1 of the basic memo, indicate an addition of 3 ET2's to permit watches of 2 ET's each. The notes in enclosure 1 are applicable to this type of station.

5. Since the satellite transmitters will be unmanned, they will in general be facilities of other Coast Guard units which, for planning purposes, should have its personnel allowance increased by 1 ET2, 1 ET3, and 1 SN for maintenance of the satellite transmitting station buildings, grounds and electronic equipment and for safety reasons. This suggested allowance might be decreased depending on the accessibility of the satellite station from the parent unit.

6. It is recommended that personnel requirements for physical security of these stations be determined after completing detailed site surveys. In addition it must be stated that there are many possible locations and configurations of Loran-B stations and that the basic complement will require adjustment to satisfy each particular site.

L. E. BRUNNER

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TO : Chief, Aids to navigation Division

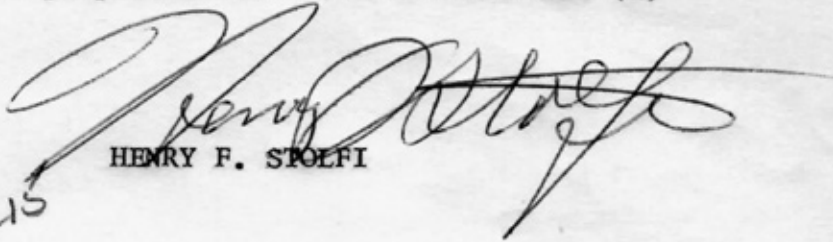
DATE: OSU
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A1-1
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FROM : Chief, Shore Units Division

SUBJECT: LORAN-B Station; personnel requirements

Ref: (a) OAN memo to OSU via EEE dtd 18 Nov 58, file A1/1-1
(b) EEE 1st End to reference (a) dtd 8 Dec 58, file EEE-4

1. This Division concurs in the proposals set forth in reference (a) as modified by reference (b).



HENRY F. STOLFI

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cc:
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