







## RESPONSIBILITIES OF A LORAN STATION

The responsibility to operate the LORAN System, given to the Coast Guard in 1943, has been carried forward to include the present system. LORAN has now become one of the many duties and responsibilities of the Coast Guard in its never ending battle for the safety of life at sea. Although each station is only part of a LORAN pair, it is necessary that each station perform at its maximum capability to fulfill the primary mission of providing accurate navigational information.

## ORGANIZATION AND DUTIES AT NANTUCKET LORAN STATION

This particular station has an assigned complement of two officers and twenty-six enlisted men. The majority of personnel assigned are either Electronics Technicians or have had previous training in this field. In addition, there are other specialities assigned to provide logistical support. Although the primary mission of this station is to provide a LORAN signal for navigation, it is necessary that each man do his assigned job in order to accomplish this.

Nantucket LORAN Station is a combined LORAN "A" and LORAN "C" station. Incorporated within one operation are three LORAN "A" rates and one LORAN "C" rate. One LORAN "A" rate LH3 is paired with a Canadian Station at Baccaro. LORAN "A" rates LH4 and LH5 are paired with Cape Hatteras, North Carolina and Sandy Hook, New Jersey respectively in a double pulsed operation. This means that two LORAN signals are transmitted from one transmitter and one antenna simultaneously. The three LORAN "A" rates are semi-automatic, allowing the watchstander to move about quite freely to accomplish any number of tasks during his watch period.

In addition to the LORAN "A" rates, this unit is also a single LORAN "C" station operating in the East Coast LORAN "C" Chain. This system has stations at Nantucket, Massachusetts, Carolina Beach, North Carolina and Jupiter, Florida. A new station has been added, transmitting from Newfoundland Canada and since the distance from this station to the Master Station at Carolina Beach is so great Nantucket Station has become the pseudo-master for this this station. To control all of this, so that maximum accuracy may be obtained, a systems area monitor is located at Bermuda.

The present operation of this station requires the utilization of eight people to maintain the necessary twenty-four hour watch (i.e. four two-man watches). Since LORAN "C" requires a "LIVE" watch, the junior man of each pair functions as the LORAN "C" watchstander. The senior man supervises the overall operations, acts as the watchstander for the three LORAN "A" rates and performs preventive maintenance and repairs of a minor nature. In addition to the watchstanders, there are three senior technicians who handle all major repairs, installations of new equipment and major preventive maintenance. One of these three is on call at all times to assist the watch supervisor for major repairs during the night watches. A Warrant Radio-Electrician and two Chief Electronics Technicians control the overall operation and to assist the technicians in emergencies. The varied responsibilities assigned each man are numerous enough that the individual must be constantly alert and attentive to his duties.

This, then, is the complex operation of transmitting a navigational signal so that we may uphold the responsibility with which we are charged.