

LORAIN ELECTRONICS CORPORATION

BULLETIN TO SHIPMASTERS

To keep our customers informed on new developments in communications, and as a reminder of some of the requirements in the use of the radiotelephone, we trust you will read this bulletin and pass it on to your other officers.

One of the most important changes taking place in radiotelephone communications on the Great Lakes is the emphasis on VHF (very high frequency) to replace the older MF (medium frequencies) and HF (high frequency) channels. We are sure you are all aware by this time of the noise and interference free advantages of VHF FM (frequency modulation) transmission. The chief disadvantage is the short range, requiring more shore stations for effective coverage.

In line with this increasing use of VHF, the Great Lakes Agreement between the U. S. and Canada has been modified to permit VHF to be used as the required safety communications system. This will become effective early in 1975. All of your ships should be properly equipped by the start of the 1975 season.

It should be noted that Channel 16, (156.80 MHz) is now designated as an International Distress, safety and calling channel. It should be used only for establishing contact with another station and for safety calls preceded by the word "Security". Calls should be kept as short as possible, being careful to use your radio call sign at the beginning and end of each call.

Other important changes should be noted. First, Channel 6 (156.30 MHz) which has been the primary intership safety channel, has now been given the additional use of search and rescue operations in case of distress or emergency. This means that all communications on Channel 6 should relate strictly to safety of navigation and to search and rescue operations and be kept as short as possible. Any ship to ship traffic not directly related to ship safety should be handled on Channel 8 (156.40 MHz) the second intership channel.

The second change to note is the use by all ships of Channel 22 (157.10 MHz) for communication with Coast Guard base stations and ships. Contact will be made on Channel 16 and then shifted to Channel 22 for exchange of messages. All new installations of radio equipment will incorporate this channel. The use of Channel 22 will help to reduce the load on Channel 16.

In addition to the above, new installations of VHF equipment may include Channel 21 (157.05 MHz) receive only for weather

information from Canadian stations, also WE 1. (162.55 MHz) and WE 2 (162.40 MHz) for reception of continuous weather broadcasts from U. S. stations now located at Cleveland, Sandusky, Detroit, Chicago and Milwaukee.

There has been a tendency not to use the radio call sign on VHF calls. We must warn all users that the FCC rules require the use of the call sign at the beginning and end of each series of communications. The FCC uses mobile monitoring units for checking VHF calls all over the Great Lakes. A number of ships have already received notices for failure to use their call sign. Please help yourselves and us by obeying the rules. To assist you in this respect, we are preparing a new call sign book.

Regarding FCC rules we again remind you that daily log entries are required for the beginning and end of the radio watch, the operating condition of the radio equipment and any distress or emergency calls overhead. Also, the names, license numbers and date of signing on or off the vessel of all crew members who will stand a radio watch are required to be entered in the front of the log book. We suggest you re-read Secion 83.368 of the FCC Rules.

Another reminder; when laying up or fitting out in the spring, please be sure all radiotelephone and radar maintainance logs as well as operating manuals and FCC Rules are stored where they can be available for the FCC inspection. Considerable difficulty was created this past season when the above items were not available or were lost during the winter. Insert all new ammendment sheets in the FCC Rules when received. Be sure all station and operators licenses are posted and are the current documents. Check expiration date of the certificate for Great Lakes Agreement inspection.

All of your ships should now have an emergency radiotelephone, operated from batteries in most cases. Lorain Electronics Corporation has used nickel cadmium alkaline batteries in all of our installations. These batteries are rugged and long lasting with a regulated charger to keep them ready for use at all times. However, they do require a periodic check of liquid level, we suggest once every two weeks. The level should be kept above the plates by the addition of distilled water only, being sure the water is not contaminated by contact with any acid. Use of a hydrometer is not necessary as the specific gravity does not change. The tops of the cells should be cleaned of any deposits and all connections kept clean and tight.

Looking ahead, LEC is presently deeply involved in developing a prototype automated VHF system in cooperation with the Maritime Administration and the shipping companies. This system will allow you, when properly equipped, to directly dial the desired shore telephone, transmit position reports and weather information auto-

matically, receive directly dialed calls from shore and provide two way transmission of facsimile and teletype for items such as ice and weather charts, maps, sketches and other business forms.

The new station at Copper Harbor and the improved location at Duluth are part of this new program. We expect to have new stations at Grand Marais, Michigan and Sturgeon Bay, Wisconsin in operation by early November. These will complete the six stations in the prototype system to be evaluated during the first half of 1975. While the Duluth and Copper Harbor stations are temporarily manually operated, we would appreciate any comments you may have on their operation and coverage.

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