VIII. COMMUNICATION

A. CURRENT STATUS: Operational communications in the LA-LB Harbor area use marine VHF radio and commercial telephone communications. The five principal nodes are the Vessel Traffic Service LA-LB (VTS LA-LB) at the Marine Exchange, Los Angeles Pilots, Long Beach Pilots (Jacobsen Pilot Service), Port of Long Beach Joint Command Center (POLB JCC), and the USCG Sector LA-LB.

Marine VHF-FM radio is the primary means of communication. Please see the table below in Section B.

In 1992 FCC regulations changed VHF Channel 9 to an alternate calling frequency for non-commercial vessels.

All VHF equipped vessels and all Coast Guard Stations must monitor VHF FM Channel 16. However, when a vessel operates within the VTS LA-LB area (within 25 miles of Point Fermin) AND monitors the VTS frequency (VHF FM Channel 14), it is not required to maintain a concurrent listening watch on VHF FM Channel 16.

When operating on the Navigable Waters of the United States (12 nautical miles from the baseline), the following vessel categories must monitor VHF FM Channel 13:

- power-driven vessels 65.5' (20 m.) or longer,
- vessels 26' (7.9 m.) or longer with tows,
- vessels of 100 gross tons or more carrying one or more passengers for hire,
- vessels certified for 150 passengers or more for hire, and
- dredge and floating plants operating in or near a fairway or channel.

B. PRINCIPAL OPERATING CHANNELS (VHF-FM):

STATION		CHANNEL	FREQUENCY
U.S. Coast Guard (primary) and Distress, Safety & Calling		16	156.800
U.S. Coast Guard (secondary)		22A	157.100
Bridge to Bridge inside the federal breakwater		13	156.650
Vessel Traffic Service LA-LB (San Pedro Traffic)		14	156.700
LA Pilots (primary)		73	156.675
LB Pilots (primary)		12	156.600
LB Pilots (pilot-to-pilot frequency)		74	156.725
El Segundo Mooring Masters (primary)		10	156.500
Harbor Tug Working Channels	(LA and El Segundo)	77	156.875
	(LA secondary)	63A	156.175
	(LB primary)	5A	156.250
U.S. Navy Seal Beach Port Ops		65A	156.275
Inter-Ship Safety		6	156.300
Non-Commercial Calling		9	156.450

C. CURRENTLY - INSTALLED COMMUNICATIONS EQUIPMENT: VTS LA-LB, the Los Angeles Pilots, and Long Beach Pilots (Jacobsen Pilot Service) use state-of-the-art communications equipment well-suited to the requirements of the area. The Committee does not know of any area within the LA-LB Harbors with inadequate radio communications.

1. VTS LA-LB

    a. Three Furuno FM-8900S shipboard-type, VHF-FM all-channel synthesized transceivers, maximum 25 watts, with scan capabilities and local antennas.

    b. One remote Motorola VHF-FM transceiver capable of channels 13, 14, and 16, maximum 45 watts, located on San Pedro Hill at the FAA radar site.

    c. Ten Automatic Identification Systems (AIS) units located at the Marine Exchange in San Pedro and remote units at locations between San Diego and Port San Luis.

    d. Computer-based Maritime Information System (MARIS) system used by the Marine Exchange to collect, store, display, create, and send reports of ship arrival, departure, shift, and other information. Data feeds from this system are provided to the LA Pilots, LB Pilots (Jacobsen Pilot Service), and the USCG Sector LA-LB.

    e. Kongsberg/Norcontrol C-Scope VTS System with wide-screen displays on a joint Local Area Network between the VTS LA-LB, LA Pilots, LB Pilots (Jacobsen Pilot Service), USCG Sector LA-LB, and Port of Long Beach Command and Control Center (POLB JCCC)

    f. One diesel-fueled, automatic-starting emergency generator (55KW) capable of powering the entire MX building. Approximately 40-hour diesel fuel supply is on site (20-gallon tank and 20 gallons in portable containers).

    g. One battery-based uninterrupted power supply (UPS) capable of powering critical equipment (VTS System, MARIS, computers, radars, radios, telephones, and other sensitive electronic equipment for 45 minutes.

    h. Backup VTS at the Port of Long Beach Joint Commander Center on a Local Area Network with the Long Beach Pilots (Jacobsen Pilot Service).

2. Los Angeles Pilot Station

    a. Two Primary VHF Transceivers
        a. One VHF GTR8000 Base Radio at Marine Exchange
        b. One APX85000-based Consolette at Warehouse 1 (WH1)

    b. One Nokia Wavence Microwave Backhaul Hop between WH1 and Marine Exchange

    c. Two 4-hour Backup UPSs (Pilot House & WH1)

d. Two Standard Horizon all-channel synthesized, 25-watt, with a local antenna

e. One diesel-fueled, automatic-starting emergency generator (45KW). Essential operational communications, computers, cameras, and ECDIS displays are on UPS circuits.

3. Long Beach Pilot Station (Jacobsen Pilot Service):

a. Two primary VHF transceivers, Motorola base station C53RTB-1196C, 50-watt (frequencies per Section B, above). The second remote unit is on San Pedro Hill and connected to the pilot station by a leased telephone line.

b. Two secondary VHF transceivers, One Sea 156 and one Icom IC-M506,25-watt shipboard-type, all-channel synthesized radio with scan.

c. One PC-based private email message program to exchange vessel movement information through Harbor Net.

d. One diesel-fueled automatic-starting emergency generator (50KW). Essential operations equipment on UPS circuits.

4. Best Practices:

a. VTS LA-LB and pilot groups use high-quality, reliable communications equipment. Any replacement equipment should equal or exceed the current equipment.

b. Mariners are encouraged to minimize voice traffic on VHF frequencies. The Committee supports this effort to maintain circuit discipline and reduce frequency congestion.

c. Mariners are further encouraged to use low transmitting power when communicating with VHF radio. This practice minimizes interference and frequency congestion. High power should only be used when low power is not sufficient.

D. EMERGENCY COMMUNICATION PROTOCOL: All "requests for emergency response" from any vessel underway within the Plan's AOR should be reported to the U.S. Coast Guard. If the vessel is not fitted with a marine radio, such reports may be made via telephone by calling "911." Upon receiving a report, the USCG will notify the appropriate police/fire dispatch center and request the appropriate assets to respond.

Distress, Safety and Calling	VHF Channel 16	156.800 MHz
USCG Sector LA-LB	(310) 521 3801	

The U.S. Coast Guard monitors VHF Channel 16 and the NRC Hotline 24 hours a day. Anyone witnessing an oil spill, chemical release, or maritime security incident should call the NRC hotline.

USCG National Response Center Hotline (800) 424 8802

This protocol does not supersede or replace any requirement contained in formal vessel emergency response plans, such as those required by various port states.

As used in this protocol, the term "request for emergency response" includes distress calls and reports of suspicious activities. Other activities that might warrant reporting:

- suspicious drone/plane activity
- security breaches or attempts
- USCG safety/security/protection zone violations
- crimes on land or water
- navigation rule violations

Several advantages occur from using this process. First, all police/fire boats actively monitor VHF Ch16 and will be able to mobilize immediately. This will result in a significantly faster response than using the 911 system. Second, the USCG understands maritime language and has significant domain awareness that regular land-based dispatch centers may need to possess. Lastly, the USCG can triangulate the position of the mariner/boater.

There are disadvantages associated with using a mobile phone to report an emergency.

- the signal is minimal, and there may be no coverage.
- mobile phone communication is limited to one party at a time. When using a radio, everyone hears your call for help (there could be a vessel a mile away that hears you on the radio and could reach you in minutes).
- emergency responders cannot easily locate the signal of a mobile phone. However, they can use direction finding equipment to locate a radio transmission more quickly.

Format for distress calls on VHF Channel 16:

1. Transmit: ***"MAYDAY, MAYDAY, MAYDAY"***
2. ***"This is*** (name of the boat three times, call letters once)***."***
3. Repeat "MAYDAY" and your boat's name again.
4. Report your location.
5. Report the nature of your emergency.
6. Report the kind of assistance needed.
7. Report the number of people onboard (POB) and the condition of any injured.
8. Describe the boat and its seaworthiness. Then wait for a response. If there is none, repeat the message.

When a distress signal is received, the Coast Guard will acknowledge it and ask for further information as necessary.

Notification to the National Response Center: The USCG will determine whether the emergency requires mandatory reporting to the National Response Center (NRC) and either make

that notification or ensure the responsible party is aware of the requirement. The NRC is the federal government's centralized reporting center, which U.S. Coast Guard personnel staff 24 hours per day.

Making a false distress call in the United States is a federal crime carrying sanctions of imprisonment for up to six years and a fine of up to $250,000, and restitution to the Coast Guard.

E. NAVIGATION EMERGENCIES IN PILOTAGE WATERS – SOUND SIGNALS:

In pilotage waters, when an emergency situation occurs that affects navigational control, a vessel may pose an immediate risk to critical shoreside infrastructure, other facilities, and the public. In those circumstances, it is critical to immediately alert the appropriate authorities and stakeholders of the danger to enable a timely shoreside response to the emergency. When an onboard emergency may endanger port infrastructure, facilities, or the public, the person in command of the vessel and/or directing the movement of the vessel should take reasonable and immediate steps to alert and warn persons, entities or other vessels that may be endangered. The above-described Emergency Communication Protocol should be followed as applicable. Depending on circumstances and the urgency of the situation, persons in command of a vessel experiencing a navigational casualty should consider using appropriate sound signals to warn others of any imminent danger.