



**Manhattan Beach  
Emergency Operations Center  
&  
Community Emergency Response Team**



**Communications**

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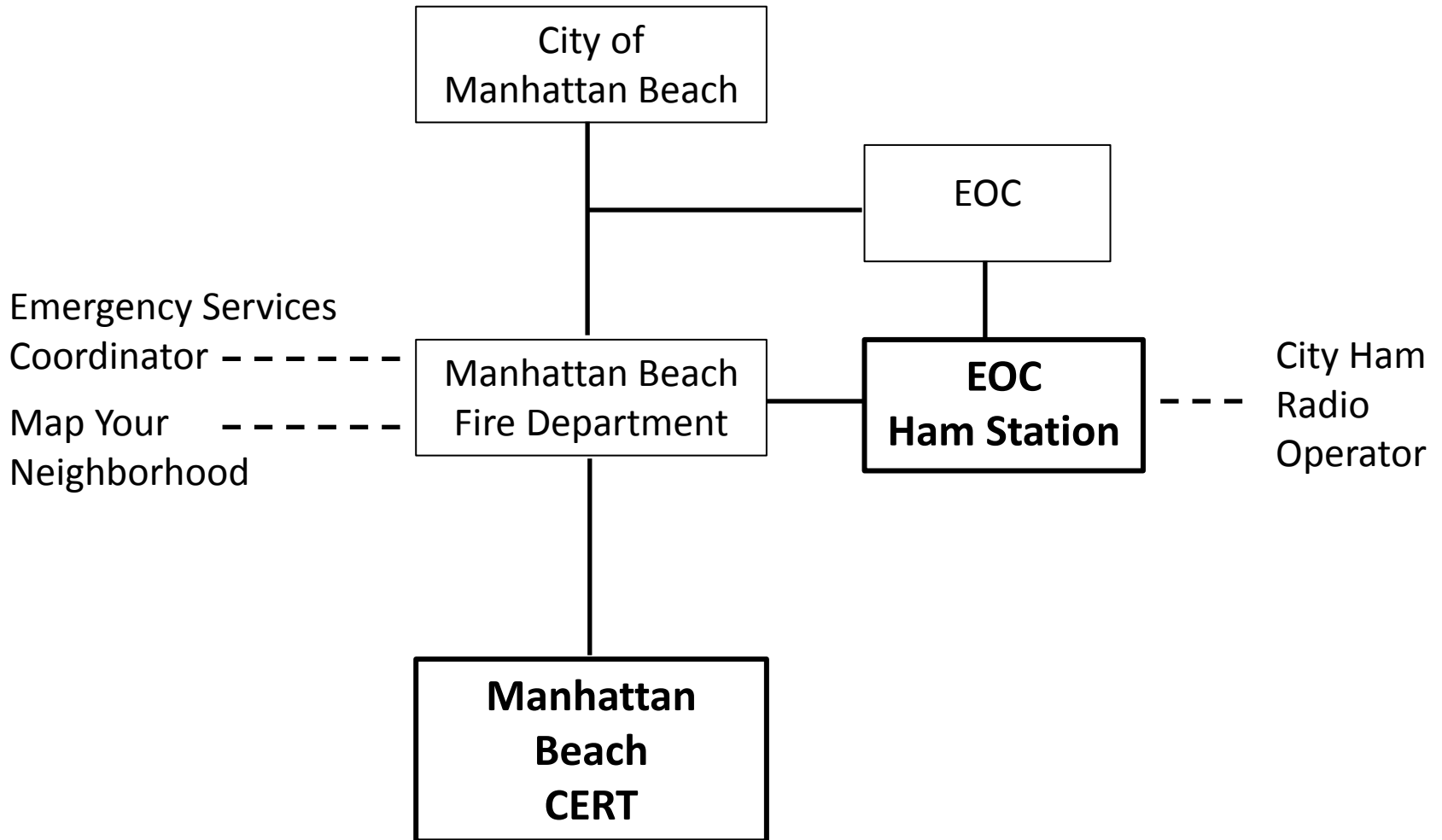
# The Challenge During Emergencies . . .

A rectangular image showing an underwater scene with blue water and many small white bubbles rising from the bottom. The text is overlaid on this image.

**The single biggest problem in  
communication is the illusion that  
it has taken place.**

George Bernard Shaw

# Manhattan Beach Emergency Communications



# Manhattan Beach EOC



- 2M, 440, 220
- LMR (~151-160 MHz Trunked)

# EOC Ham Station Operation

- City Radio Operator / Scribe
- Weekly Check-ins
  - DCS Station including receipt of NBEMS messages
  - Miscellaneous Nets
- Special Events
- Drills
- Activated in case of disaster or emergency

# Manhattan Beach EOC Ham Station



ICOM 5100  
Radio Heads  
(2M/440)

LMR  
Radio  
Motorola  
XPR 4550

Bridgecom  
BCM-220  
Radio

# Using Signalink with ICOM 5100



# LMR & 220 Radios

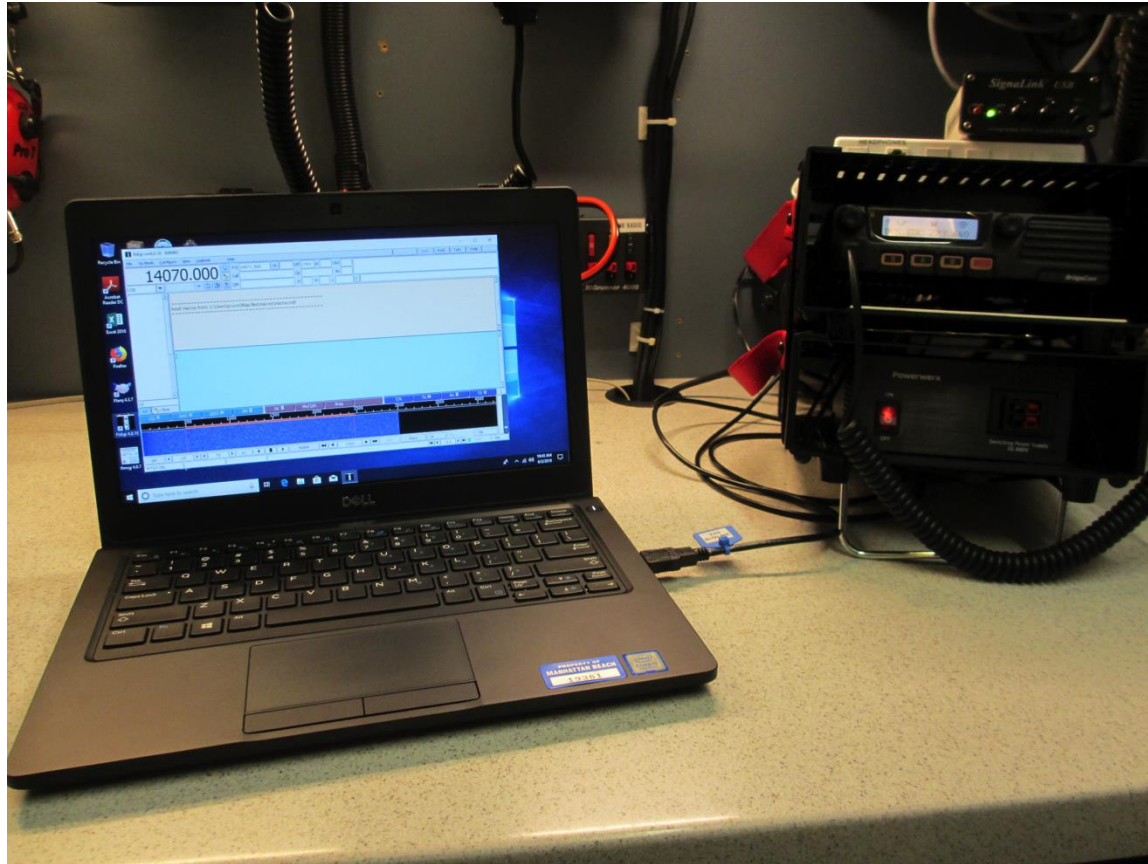


BridgeCom Systems  
BCM-220 Mobile

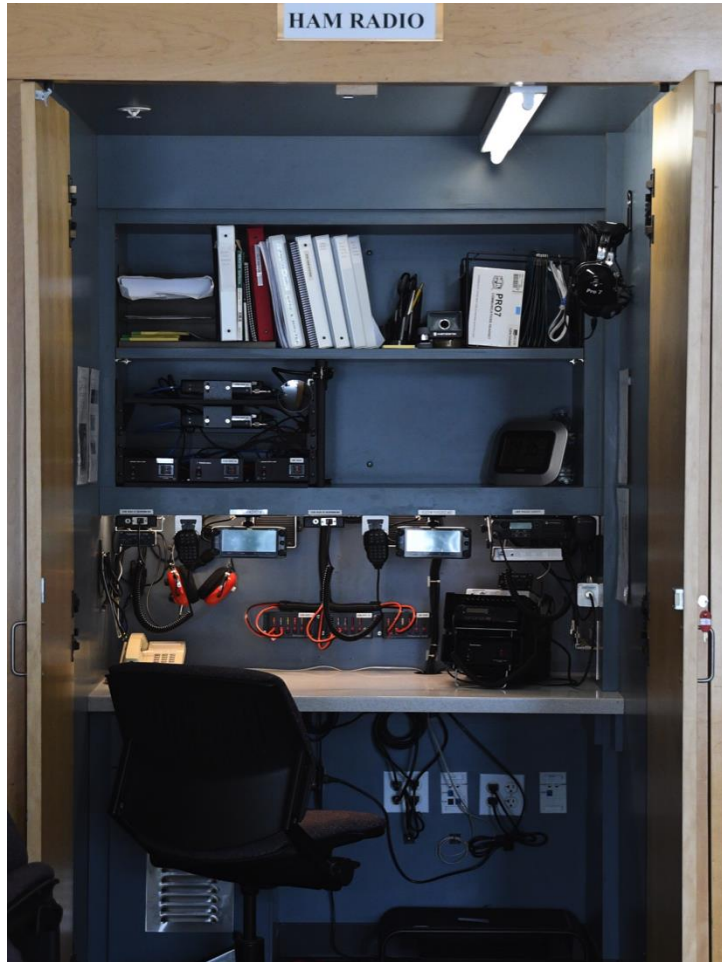
LMR Radio for  
MBCERT Comms  
Motorola  
XPR 4550



# Using Signalink with 220 Radio



# Summary: MB EOC Ham Station



- Ham 2M, 440 & 220 + LMR Capability
- Primary purpose to improve City's situational awareness

# Manhattan Beach CERT

## MANHATTAN BEACH



- MB CERT Founded 2008
  - Over 500 Residents Trained
  - BOD with MBFD Battalion Chief Representation
  - K6MBC Club Call Sign
- 
- City Divided into 4 Areas – Residents Report to Their Area Upon Activation
  - Command Vehicle & Vehicle for Each Area Containing Comms, Medical, Search & Rescue Equipment etc. plus an EMR Trailer



# MB CERT Communications

- MB CERT utilizes multiple frequencies to help ensure effective comms in an emergency or disaster
  - LMR, 2M, 440, FRS
  - LMR is primary, Ham is secondary
  - FRS only used for short distance communications
- LMR uses PV repeater (primary) or Mt. Wilson
  - Simplex channels are also programmed
- MBCERT ICS-205 frequency plan calls for use of simplex frequencies
  - Simplex frequencies likely to be overloaded
  - Need reliable repeater to use during emergency in terrain-challenged Manhattan Beach



# MB CERT Comms Equipment

Command Vehicle  
(MBCERT Incident Communicator)



- LMR Radio in Cab
- Ham & LMR in back
- MBFD radio (monitoring, limited transmission)

Area Vehicles (4) & EMR Trailer  
(Area Communicators)



- LMR Radio in Vehicle Cabs
- Comms Go Boxes with LMR & Ham in Vehicles & EMR Trailer
- Handheld LMR Radios & Handheld FRS Radios in Vehicles & EMR Trailer

# MBCERT Comm Boxes



ICOM  
2820H

Motorola  
XPR 4550





## Summary: MB CERT Comms

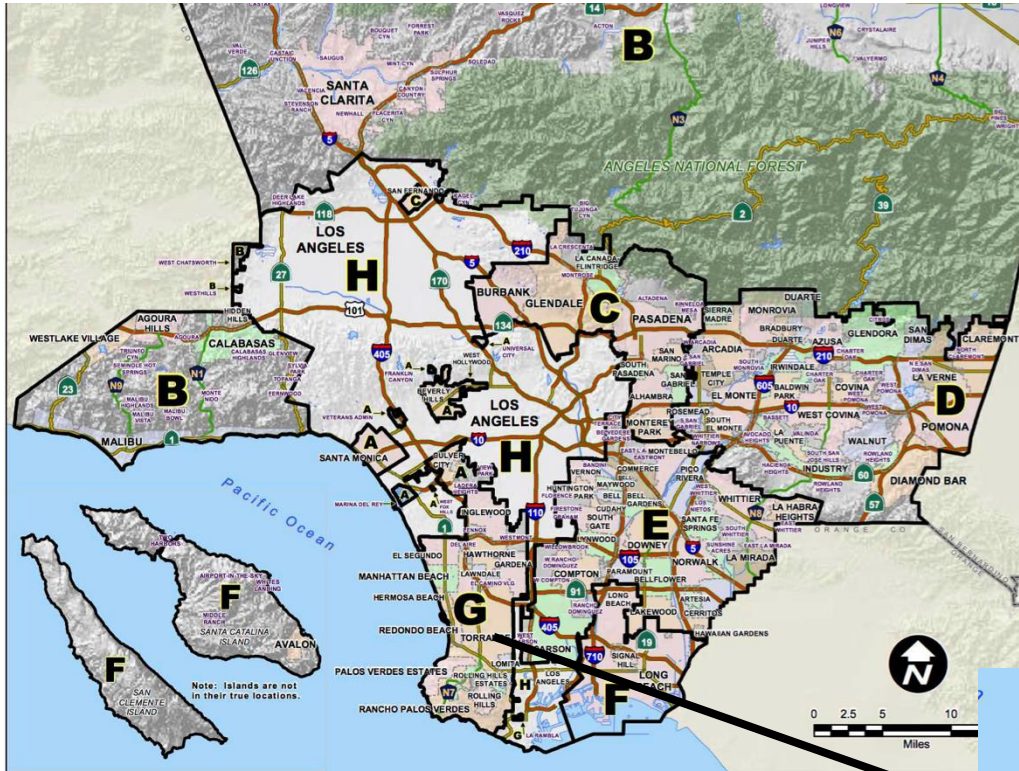
- When MBCERT is activated, MBCERT Comms support information gathering
  - Multiple frequencies for effective communications: LMR (primary), Ham 2M & 440, FRS for short distance comms
  - Comms equipment on MBCERT Command Vehicle, 4 Area Vehicles, and EMR Trailer
  - Ham frequency coverage during emergency in terrain-challenged City of Manhattan Beach remains an issue

**Questions?**

**BACKUP**



# LA County Office of Emergency Management



8 Disaster Management Areas A - H

Area G Expanded

