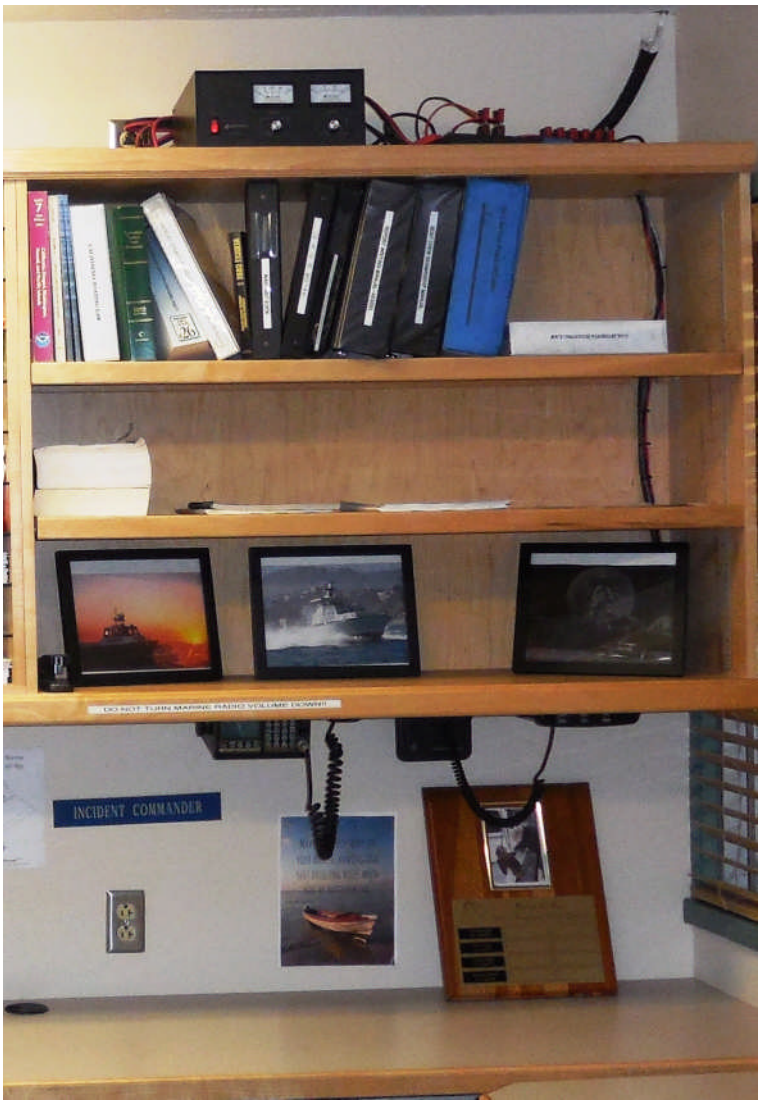
Marina Del Rey Station
DCS Radio Room Survey

17 July 2015

The radios and antennas in the Marina Del Rey DCS room were tested on 10 July 2015. The inspection was performed by technical team members Deane Bouvier S-50 and Mark Stevenson K-220 to investigate problems experienced during the MDR 4th of July event. There were reported problems getting into the 2m repeaters and on simplex. The MDR Repair Request was being held up in order to document all issues that might exist.

Operating Position

Motorola CDM 1250 commercial 64 channel VHF (136-174 MHz).
LASD Inventory: Tag not seen.



There is only one operating position at MDR and it has one DCS Motorola CDM 1250 VHF radio for 2m and one marine band radio.

Repeater Performance

The Motorola CDM 1250 power output meets spec: 50 watts high and 25 watts low (verified with Bird watt meter into a dummy load). Audio sounded good on another receiver and the frequency was measured as accurate by a frequency counter. The antenna performance was good: K6CPT Input (144.700) SWR 1.8:1, WA6ZTR Input (147.870) SWR 1.3:1. These two measurements bracket the entire 2m band.

Simplex Performance

MDR local simplex frequency was indicated as 145.560 MHz and not 145.610 cited in the most recent 2011 DCS frequency plan. We verified the transmit frequency as

145.560 with a frequency counter. Any participants in the 4th of July event who had programmed their radios in accordance with the 2011 DCS frequency plan clearly would not have heard transmissions on 145.560. Neither of these frequencies complies with the TAMA band plan.

MDR Operating Position

There is no channel programmed for simplex on either repeater output, so simplex on the output must be achieved using the Motorola "talk around" function. "Talk around" is in fact programmed as a short press on the P3 function button for both DCS repeater channels. Perhaps the operator was not aware of that.

Radio Programming

The Motorola CDM 1250 programming is obsolete and in some cases misleading. As noted before it pre-dates even the 2011 frequency plan and does not comply with the TASMA band plan. It also contains non-ham frequencies with transmit enabled, including a few Federal frequencies. That represents a real problem without prior authorization. This problem will be solved when the new DCS frequency plan being developed by the Tech Team is implemented.

MDR Programmed Simplex Channel