

Case Study



URGENT REQUEST: Reconfigure the audio/visual systems in four mess halls aboard the Navy hospital ship the USNS Mercy before it's next trip to sea scheduled in 6 weeks.

The USNS Mercy is an 894-foot long hospital ship with 12 operating rooms and a total patient capacity of 1000 beds. Dual missions of this ship are to provide rapid mobile acute medical and surgical services to support US Air/Ground task forces both onshore and afloat, and to provide mobile surgical hospital service for use by US Government agencies in disaster or humanitarian relief. Improvements were needed in the ships' communication capabilities to support these missions. Existing mess areas needed to become central points of communication relay and allow for ship-to-shore communication to the entire crew.

New audio/visual systems were designed and installed into four mess hall spaces including the Main and Junior Officers', Senior Officers' and Chief's, plus the Admin's Conference room. Five plasma screens provide display capability in the Main and Junior Officers' mess areas. A rack system is based around a Crestron PRO2 control processor and also houses Extron switchers for all video and RGB switching, a ClearOne XAP800 to aid audio switching and mixing, wireless microphone components, as well as a VCR and DVD player. Tannoy ceiling loudspeakers were installed in the space to provide audio and are powered by TOA amplifiers. The system rack includes a 15" touchpanel that provides advanced routing control. Three additional wall-mounted keypads have also been placed around the room and are easily accessible to all for basic A/V functions and simple room commands. In instances where videoconferencing is necessary, a Tandberg 2500 codec is brought in by the ship's IT personnel.

The Senior Officers' mess area is also equipped with a 42" and 50" plasma display with one being outfitted with a SMART Technologies Display overlay allowing for on-screen annotation. A second equipment rack containing

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the Crestron control processor serves both the Senior Officers' and the Chief's mess areas. The Senior Officers' mess has two A/V zones with secure and non-secure VTC capability and a wireless touchpanel for added control. The Chief's mess area has a single 42" plasma. A wireless touchpanel was also placed in this area for flexibility so that presenters can sit anywhere in the room and control basic A/V functions.

The Admin's Conference room is the smallest of the shipboard venues and has a NEC plasma display, a wireless touchpanel and it's own rack system containing a VCR, DVD player and AM/FM/TV tuner. Use of Crestron's e-control via fiber optic LAN allows the ship's IT department, located at the back of the ship, to monitor the A/V programming on all of the plasma displays and ceiling monitors.

A main challenge of this project was the small amount of time that was available to complete the work before the USNS Mercy was to ship out. Other unique aspects of this project included having to run cables by penetrating several bulkheads, welding mounts for the plasma screens to the ship's support structure and reinforcing ceiling speaker tiles to prevent movement while the ship is out to sea.

In completing this project, CompView installed and interconnected all of the A/V equipment as well as provided set-up, testing and instruction. The ship's mess areas are now central points of communication relay. Closed circuit TV along with ship-to-shore and on-board secure and non-secure videoconferencing are now options, providing for the delivery of important and time-sensitive information to the entire crew.

