

NOISE ABATEMENT DESIGN IN MINE HUNTER CLASS SHIPS

The Navy's exposure limit for occupational exposure to noise is 84 decibels, A Scale (dBA) as an eight-hour time weighted average. Workers at risk of exposure to noise levels at or above 84 dBA are placed in a hearing conservation program. Personnel enrolled in the hearing conservation program wear hearing protection when in noise hazardous workspaces and are evaluated periodically for changes in hearing acuity.

USS Raven (MHC 61) and USS Shrike (MHC 62) are the two most recent mine hunters to be built in the MHC class. The ships were designed so as to minimize hazardous noise levels generated in their main engineering spaces, which include two diesel engine rooms and an auxiliary machinery room. The result is that noise generated in main engineering spaces does not normally exceed 84 dB. As an added precaution, hearing protection is available to personnel should noise levels exceed 84 decibels.



USS Raven (MHC 61)

Noise abatement measures built into engineering spaces and fan rooms on the new MHC class ships include resilient mountings and bulkhead acoustic sheathing material made from six inches of fibrous glass and perforated coverings. This acoustic sheathing material retains its sound absorbing properties as long as it is not painted. Painting acoustic bulkhead sheathing would clog the perforations and coat the sheathing material with a shiny surface that would reflect sound and increase noise levels in the compartment. Signs in engineering spaces and fan rooms notify personnel not to paint bulkhead material.

The Navy is continually working toward incorporating safety measures at the design level of ship acquisition. The noise reducing design of USS Raven and USS Shrike engineering spaces has set a welcome precedent. Designing safety and health into ships not only demonstrates the Navy's commitment to protecting Navy sailors at work, it also protects them "at home" since the ship is where they both live and work.

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