Let's for He

Navy photo by PH3 Scott Campbell

SK1(SW) Tom O'Neil uses a hand-held sound-level meter to measure the noise being made by a Sailor with a needle gun.

By JO3 Paul Newell,
USS George Washington *(CVN 73)*

You can't escape it; there's really nowhere to hide. From the deafening scream of jet engines, to the constant rat-a-tat-tat of needle guns, loud and annoying noises are everywhere aboard USS *George Washington* (GW). Even Sailors who don't work in a space with loud equipment probably work near noise.

Some say they're getting used to the crashing, roaring and screeching that goes along with life at sea aboard an aircraft carrier. But safety department's SK1(SW) Tom O'Neil, who is one of the ship's two hearing-protection monitors, says the only thing he wants shipmates to get used to is safeguarding their hearing.

"Too many of them disregard the need for hearing protection," says O'Neil. "It just seems they don't know what levels of hazardous noise they're being exposed to."

If they knew, they might wear hearing protection all the time. Take, for instance, the boatswain's mates who, before they can paint a bulkhead, must take off the old paint. Needle gunning is a good way to do that, but it's also extremely noisy—113 decibels. At that level, it wouldn't take unprotected Sailors long to get the same ringing in their ears that people experience after attending a rock concert.

Commander Bob Lucas, the safety officer aboard *GW*, is trying to make some noise of his own. His motivation for reducing the noise level aboard ship comes from years of personal experience: abusing his ears while flying helicopters. In logging more than 4,000 hours of flight time since 1981, he has suffered a 65 percent hearing loss in his left ear and 45 percent in the right.

"It's too late for me," he says, "but the Navy has committed millions to investigate the potential reduction of noise aboard ship. During our yard period, we are scheduled to install mounted orifices with the jet-blast deflectors, which should greatly reduce the incredibly loud sound on the flight deck. We also are looking into supplying active-sound continuators in cranials, which will reduce heavy background noises."

Are such measures necessary? What does sustained exposure to noisy environments actually do to our hearing?

Hear It
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"The heavy sounds around a ship will affect the ear's ability to pick up the 4,000 hertz frequency—the one associated with loud noises," says Lt. Roger Talbot, *GW*'s physician assistant. "After staying in a noisy area long enough, the ear's nerves will be affected. Going to an occasional rock concert or cranking up the radio is fine once in a while, but constant exposure will harm our ability to hear. It's a gradual progression, and we really need to be aware of the effects of working in spaces where sound generates heavy noise."

That's especially true for flight-deck Sailors. For hours each day, they are exposed to sound levels above 130 decibels. According to Lt. Mike Lutte, *GW*'s industrial-hygiene officer, that level is enough to make your eardrums bleed. Besides using the common yellow earplug "foamies," Sailors on the flight deck are required to wear circumaural muffs.

To determine noise levels, Lutte and O'Neil travel to spaces they suspect are excessively noisy and use a noise-level meter. This instrument tells them exactly how many decibels are being produced in a space. Lutte, who is responsible for determining which workcenters are prone to high noise levels, says between 84 and 104 decibels require single-hearing protection[1]. Anything over 104 decibels, though, requires double-hearing protection.

"We stop a lot of shipmates and say, 'Hey, you need to stop what you're doing and get some hearing protection.' We'll even go get it for them if we have to."

Sometimes, Sailors don't appreciate the efforts of our safety department.

"The most frustrating thing is seeing repeat offenders and the attitude you get from them," O'Neil says. "They just don't understand it only takes a minute or so to don the proper personal protective equipment. I guess they just feel bothered by us, but it's our job to care about their well-being."

O'Neil isn't the only one who cares about shipmates' hearing. Another is HM2 Tamara Marks, a trained preventive medicine technician (PMT), who notes that Sailors in certain departments must have their hearing tested annually.

"The safety department has determined that there are Sailors from six departments (air, engineering, deck, weapons, AIMD, and reactor) who require audiograms each year," Marks says. "We give them the test and compare the results against their initial screening during boot camp. If they have suffered hearing loss, we talk to them and re-educate them on the importance of hearing protection. We also suggest common ways to avoid hearing loss."

What about Sailors who can't escape the noise?

"The arresting gear is right above my berthing," AN Jose Santiago of V-4 division says. "You can hear exactly when the plane hits the deck. It's like 'bam!'"

Unfortunately, flight operations can't be flown around the schedules of Santiago and his roommates. But *GW* is looking into helping these Sailors, too.

"We're evaluating the possibility of adding acoustic insulation to their berthing spaces," Lutte says.

While long-term solutions to some of the bigger noise problems are being worked out, the safety department is willing to do what they can to ensure Sailors get the hearing protection they need.

"We're always willing to teach our shipmates about hearing protection or to give out ear plugs to them," O'Neil says. "If a division or department doesn't have the money in their funds, we'll help them. At $19 a box, it's the kind of investment we like making. After all, we're here to help our shipmates hear."

For More Info…

[1] Single- and double-hearing protection requirements are outlined in Chapter B4 of the NavOSH Program Manual for Forces Afloat (OpNavInst 5100.19D).