



Limited online access stresses sailors at sea

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ABOARD THE CARRIER ENTERPRISE — In a room about half the size of a tennis court, half a dozen sailors are waiting for a seat to open up at one of 30 computers lining the bulkheads.

With a library next door, it's like a high school media center, only the patrons are a few years older than the typical student and wearing Navy working uniforms.

This particular day wasn't that busy — sailors waited a few minutes or so to log on and check their email, write home, look at their bank accounts, catch up on the news and scan Facebook.

“The biggest thing is social networks and email,” said Aviation Boatswain's Mate 2nd Class (SW) Jose Santiago, who was running the media center that day in January.

While sailors have a list of things they need to do online, they have one challenge to negotiate: They're working on the equivalent of a dial-up network. Carriers and other ships have plenty of broadband access, but a large portion of it is devoted to the ship's war-fighting capability. What's left is used by the 5,000 sailors onboard for their personal business and recreation, and given the number of users online at any moment, it's a particularly slow connection.

More than ever before, sailors are in close contact with their friends and family back home. They're able to be a part of decisions as simple as what type of shoes to buy their kids and as serious as how to care for a sick loved one — issues sailors couldn't help with in the pre-digital Navy, when infrequently delivered snail mail was the only tether to home.

That creates a new type of stress when sailors, particularly younger ones who grew up with high-speed Internet and later had smartphones in their hip pockets, go to sea. For years, they've always been able to shoot a quick email or text message, check up on friends on Facebook or track them on Twitter. But when they go to sea and these channels are choked — or, in some cases, severed — it can stress out the sailor and loved ones back home who have grown accustomed to having a digital pipeline.

“They're very used to having everything at their fingertips instantly,” said Cmdr. John Owen, command chaplain on Enterprise. “It's like a blankie, they really can't stand to be without it.”

It's an issue that's particular to the Navy. Many deployed soldiers, Marines and airmen — even in Afghanistan — carry smartphones that allow them continuous access to loved ones, along with access to Internet cafes at forward operating bases with fast connections that support Skype or streaming video. Furthermore, depending on location, they can purchase access through a local Internet service provider, allowing them to use their own laptops or tablet computers and access websites that are blocked on government networks.

“Generally, if it's a military-provided satellite service, or military-contracted, it's generally pretty quick and soldiers can Skype and email and chat,” said Army Capt. Royal Reff, spokesman for the Germany-based 170th Infantry Brigade Combat Team, which recently completed a deployment to Afghanistan.

Reff and other public affairs officers say commanders generally allow soldiers, airmen and Marines in Afghanistan access to local phone and data networks, but there are concerns that the benefits of keeping in touch with families back home might cause security problems.

In a March 7 story on its website, for example, the Army warned soldiers that geotagging in photos posted to social media — which allows viewers to see where the picture was taken — could help enemy forces organize attacks on deployed units. The story instructed soldiers to disable the feature on their smartphones.

Limits at sea

While it would likely boost morale, the Navy can't create a high-speed Internet connection that never drops — the ship's mission, engineering limitations and budget constraints prohibit it.

Exactly what a sailor at sea can and can't do online at any given moment depends on several issues.

First is the ship's mission — everything related to it that requires Internet access gets first dibs. From there, the ship also considers security and tactical factors — whenever the ship sends out messages, it makes it easier for enemies to pinpoint and track its position.

“Sometimes, off-ship communications are limited due to operational mission requirements so only email is allowed through. At other times, for example when the ship needs to be stealthy, no off-ship communications or other electromagnetic radiation is allowed at all,” said Neal Miller, deputy chief information officer for mission assurance for Fleet Cyber Command.

Beyond that, the commanding officer is effectively the baron of the Internet, sometimes cutting off access entirely or limiting access to high-band websites.

From there, sailors can use the Internet for personal use, whether it's email, online classes, banking or talking with their detailer to figure out their next set of orders. They can use social networks like Facebook, as well as YouTube and other data-heavy streaming video sites.

“When the paths are not fully used for mission, they will tend to be filled up by other purposes,” Miller said.

It’s not practical to install a giant Internet pipeline on ships that would give sailors the ability to use the Internet and all of its offerings at incredibly fast speeds; it’s a limitation of physics and finances, he said.

“Simply put, when Navy ships, aircraft, submarines and expeditionary forces deploy, there isn’t a fiber-optic tether that follows them,” Miller said.

That means the Navy must use commercial and military communication satellites. And there are limits. Ships must contend with pitch and roll while at sea, and accommodating those movements to create a better Internet connection adds weight to the vessel, takes up space and makes the entire ship more technologically complex. Beyond that, satellites aren’t always in clear sight, which means there is no way to relay a communication signal. And the Navy won’t buy beefier bandwidth because it’s not economically prudent, Miller said.

“Satellite bandwidth isn’t free, and we must be good stewards of taxpayer dollars,” he said.

There have been some steps to improve the user experience without adding more bandwidth. Some aircraft carriers have created Web user groups, or WUGs, to give sailors faster Internet access for their personal use. WUGs divide the ship’s sailors into different shifts, each with its own time slot for going online, helping to eliminate the Internet-access version of rush hour. With Internet usage spread throughout the day, the limited bandwidth isn’t overtaxed, which allows sailors to surf the Web faster. While only carriers now use WUGs, some amphibious assault ships may implement them, too.

Some training courses are kept on shipboard servers, preventing sailors from having to download course material and take up bandwidth in the process. Furthermore, ships with more sailors onboard have been allocated more bandwidth.

Digital withdrawal

The Navy’s limited access to broadband causes “digital withdrawal” among some sailors, particularly younger ones used to being constantly in touch. The service has no official approach to handling this problem, but shipboard counselors say it’s an increasingly common issue.

“We live in an instant gratification type of culture. It’s a hard adjustment for a lot of kids,” said Lt. Cmdr. Amarjeet Purewal, psychologist on Enterprise.

And loved ones back at home don’t always understand that their sailor isn’t just a few button-presses away. They can become frustrated and their emotions make it to the carrier, Purewal said.

It can be particularly harsh when the ship goes into “River City,” a period of communication blackout. Purewal said he has seen sailors struggling with romantic breakups caused by spotty or nonexistent Internet access.

It’s a palpable tension through the ship, said Santiago, the sailor running the media center.

“When we go to River City, people get mad. Since there’s nothing else to do, they try and find other ways to relax,” he said.

From a family perspective, Internet access is an “amplifier,” said Capt. Scott Johnston, director of the Naval Center for Combat and Operational Stress Control. If a sailor has a strong relationship with loved ones, the regular connection makes deployments easier for everyone. If it’s a strained relationship, the regular contact adds pressure at home and at sea.

Internet access means some sailors are able to maintain a family role while deployed. They can still, in some way, be a part of their home life. The wider support network can be a welcome relief valve while underway.

But constant contact also changes a sailor’s lifestyle. In pre-Internet deployments, sailors at sea left their family issues behind — they could focus on their work. The letters they received were weeks old and the information they contained was about personal history, Johnston said.

Now, messages are about the present. In some ways, everything about their home lives follows them to sea.

Johnston said he’s heard of situations where deployed sailors are talking with their spouse over Skype about a behavior problem with their child and moments later, the spouse will put the child on camera so the sailor could help address the issue. In effect, it’s a tongue-lashing launched from the middle of the ocean. And when the long-distance parenting ends, sailors have to return to work mode.

“Switching from a home role right into a sailor role while deployed can be difficult. That really is a difficult transition to make when before you were just talking about history,” Johnston said.

Still, reliance on the Internet — and in some cases, the need to stymie digital withdrawal — causes Enterprise sailors to wait as long as 90 minutes for an open computer in the lab. On a typical day, as many as 300 sailors will stop by, most of them as soon as they get off watch.

“You pretty much know everyone — the whole ship comes here,” Santiago said. Ë