



# Ethernet Network System Provides Readiness for Global Response



SAN DIEGO-- The U.S. Navy is in the process of converting ship-board local area networks from Asynchronous Transfer Mode (ATM) to Gigabit Ethernet (GigE). GigE provides an all Ethernet frame based local area network environment native to the host applications. This change will allow the Navy to leverage commercial network industry technology.

“Since initial fielding of GigE on ships, the Fleet has found that less time is spent worrying about whether the network would be ‘up and running’ and more time performing war fighting missions. GigE is easier to understand than the complex ATM technology,” said Tim Smith, Program Manager, with the Naval Afloat Networks office at the Program Executive Office for Command, Control, Communications, Computers and Intelligence.

There are four carriers, five amphibious assault ships and one guided missile destroyer currently using GigE. Design work has begun for submarines and installation is expected to begin in 2004.

Earlier in 2001, the Navy began converting their shipboard local area networks from ATM to GigE on large deck aircraft carriers and amphibious assault ships. GigE was successfully fielded for the first time on a U.S. Navy amphibious assault ship, USS BELLIEU WOOD.

“GigE is a breath of fresh air in comparison to the previous ATM system,” said Lt. Vee Courtney of USS JOHN C. STENNIS. “It is important to the infrastructure for GigE to be robust so it can successfully complete the mission to meet a crisis anywhere on the globe.”

Since network components are being developed more and more to an Ethernet environment, a network system such as GigE has become far more user friendly than its predecessor, ATM. Troubleshooting an all Ethernet networked environment is far less difficult than a combined ATM (cell based) and frame based environment.

“GigE is simpler and more reliable. You don’t have to deal with ATM translation; instead everything starts Ethernet and stays Ethernet. As a result there are fewer things to go wrong,” said Richard Orchard, Routing and Switching Engineer Manager for Naval Afloat Networks.

The benefits of GigE are numerous. It is important for the Navy to have a network system that provides readiness for global response with minimum delay. An effective and efficient network system is especially crucial and imperative during these uncertain times. It is the hard work of departments such as Naval Afloat Networks and the individuals they team with that help the Navy rise to challenges and the success of our fleet.