

Hands across the water



A Boeing EA-18G Growler launches from the flight deck of the USS *Dwight D. Eisenhower*. The U.S. Navy and Boeing recently worked together evaluating the EA-18G as it underwent initial sea trials aboard the aircraft carrier.

RON BOOKOUT/BOEING

Boeing employees recap 11 days at sea during Growler trials on carrier

By Philip Carder

From our seats in the C-2 aircraft, there were just two small windows to look out. So once we departed from Chambers Field at Naval Station Norfolk, Va., I wasn't sure where we were in relationship to our destination—the USS *Dwight D. Eisenhower* aircraft carrier, miles off the United States' east coast.

We soon found out. With a loud thump, our aircraft landed and caught the arresting cable on the carrier's deck, and though our bodies seemed to stay in motion, the plane's motion was immediately halted. That was a sensation I won't forget.

I was one of 50 Boeing employees who spent nearly two weeks at sea this summer, supporting U.S. Navy personnel during sea trials for Boeing's new electronic attack aircraft, the EA-18G Growler. The trials—including both takeoffs and landings on board the carrier—evaluated the aircraft's performance under a variety of operating conditions. This type of evaluation of the aircraft in the environment where it will operate is a critical milestone as the Growler program moves forward toward its Initial Operating Capability phase in 2009.

The EA-18G Growler is a carrier-based electronic warfare version of the two-seat F/A-18F Super Hornet. Its electronic warfare capability involves the use of the electromagnetic spectrum to effectively deny the use of this medium by an adversary, while optimizing its use by friendly forces. The Growler's primary role in the battlespace is to jam, or suppress, enemy radar and communications to protect friendly assets in the air and on the ground (see Page 12 of the September 2006 *Boeing Frontiers* and Page

33 of the August 2008 *Boeing Frontiers*). A fleet of 88 Growlers is planned to support carrier air wings.

Lead flight test conductor Alan Wirth explained to me why evaluating the Growler at sea is vital to program success. "We're out there in the aircraft's natural operating environment," he said. "We're with the men and women who're actually going to fly this machine and those on deck who will actually launch and recover the aircraft. By being there, we experienced the real challenges they face everyday at sea, such as cross winds or the pitching deck. You can't simulate that."

I was awed by the sights and sounds on this massive sea vessel—it goes by the nickname, "Ike"—with its expansive flight deck, sophisticated maintenance facilities, myriads of passageways, and the heavily protected and off-limits nuclear-power engine room.

Ike is home to thousands of sailors who work and live on the carrier. Some of those sailors—who work in the lower decks—seldom see daylight during their days at sea. Thousands of meals are prepared daily, and the ship even has its own TV station with a news broadcast.

In contrast to natural elements at sea—the foamy aqua-white of the Atlantic and the warm, wet, salty air—there was the constant pounding of steam-driven catapults that can launch a 45,000-pound aircraft (20,400 kilograms) from 0 to 165 mph (266 kph) in just two seconds; and the groan of braided steel straining to halt incoming aircraft in less than 300 feet (91 meters) of runway.

On the launch deck, there was a constant buzz of intense, well-choreographed activity—team huddles, waving arms, thumbs up, fingers pointing—as aircraft were launched and recovered time after time. When it came time for the Growler to line up on deck to be launched, its roar was deafening. The jet blast deflector rose from the deck to disperse the jet's hot gases. The heat was searing. Then, with head-snapping speed, the aircraft shot off the deck. The rush of the jet's afterburners shook me to the core. There was nothing to brace to. You just had to ride through the noise, vibration and fury. Then, in a few seconds,

it was done. Thumbs up, back slaps and fist bumps said it all. Sailors stood tall alongside the Boeing team—success written on their faces.

After my four days, it was time to board the C-2 aircraft and head home. As we sat strapped in our seats, waiting to shoot off the ship's deck like a bullet, I thought of all the sailors, Navy civilians and Boeing team members who helped put the Growler through its paces. They all seemed to say the same thing in one way or another: "There's nothing better than seeing a good product working well in the hands of our warfighters at sea." ■

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Life aboard Ike

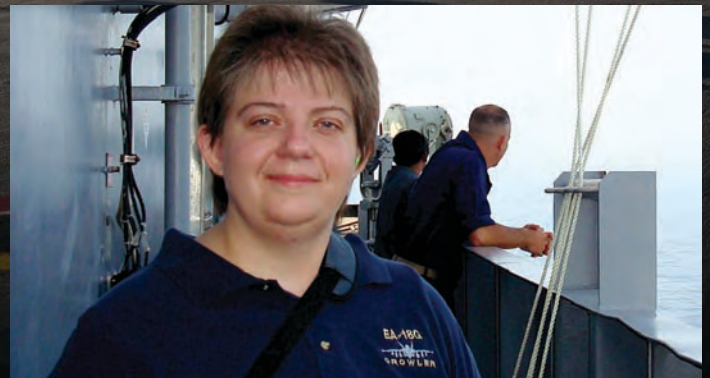


Living on the USS *Dwight D. Eisenhower* aircraft carrier during the 11-day EA-18G Growler sea trial meant something different for each Boeing participant. Here are some of their comments:

Rick Watts, Boeing EA-18G Flight Test lead, said: "Being part of the very first landing and takeoff of the aircraft from the deck of a carrier was certainly a career highlight for many of us. It was extremely valuable for employees to get out there and experience what the customer environment is really like."

Test conductor **Leigh Farmer** talked about the sense of satisfaction of being on the Growler program from its inception and then hearing the roar of the jet as it successfully launched from the flight deck. "I feel very proud to be part of this team," she said. Farmer said working and living on the ship gave her an up-close perspective of the Navy. "It allowed me to interact and see how a group of people can come together and make an exceptional team," she said.

As manager of the Boeing Ship Suitability Program—and with many carrier trips under his belt—**Bill Laingen** monitored the Growler trials during the 11 days at sea. But, he also performs another key aspect of the program: training engineers to design to a sea-based environment. "One of Boeing's core competencies is detailed customer knowledge and focus," he said. "The more our engineers know about our customer and the environment our customer works in, the better our products will be and the better-equipped our warfighters will be. Having retired prema-



turely from the Navy for medical reasons, I can't think of a more meaningful task than one that combines my love of the naval service and aviation with teaching our engineers and managers about our amazing customer."

—Philip Carder

PHOTOS: Among the Boeing representatives taking part in the EA-18G Growler's initial sea trials on the USS *Dwight D. Eisenhower* (top) was Leigh Farmer (above). TOP: RON BOOKOUT/BOEING