

# Ike Paves the Way for the Future

By JOSN Stacy Clark



Shipboard living has always lacked certain comforts, and over the years Sailors have noted the shortfalls of carrier design, such as inefficient workshops, tiny racks for sleeping and limited living space. They probably wished they could voice their opinions and affect some changes. Recently, *Dwight D. Eisenhower* (CVN 69) Sailors were able to do just that in regard to the next-generation aircraft carrier.

Although the new carrier is a decade away from construction, there is already a team of highly skilled and experienced designers brainstorming ways to improve our nation's most formidable weapon. The team is in the vanguard of future carrier aviation: the CVX program.

In the spring of 1996, Commander Naval Air Force, U.S. Atlantic Fleet was contacted by Commander Naval Sea Systems Command to form a Fleet Process

Team from crew members of both Atlantic and Pacific fleet aircraft carriers to provide the fleet perspective on current carriers.

The first meeting between the CVX team and fleet officers took place last summer. Captain Gregory

C. Brown, commanding officer of *Ike*, attended, along with his most experienced department heads. The three-day session covered topics such as methods of propulsion for the new carrier, ways to increase efficiency, the effects of a reduced



PH2 Donny Forbes



crew on board, and quality-of-life issues.

“One of the biggest items of discussion was figuring out how the Navy could operate a carrier more efficiently if manpower was reduced by 50 percent,” said Commander Dave Brown, *Ike*’s strike operations officer. “We talked about everything from systems integration to the kind of tile for the decks that would be the easiest to keep clean.”

During the meeting, it was evident to *Ike*’s skipper that the team needed to experience firsthand the problems of living and operating aboard a *Nimitz*-class carrier. Since she was in the shipyard for an 18-month overhaul, *Eisenhower* offered the perfect opportunity to see a living cross-section of the ship.

“Many members of the team had never been aboard a carrier. It offered the perfect opportunity for the CVX design team to see her up close and personal,” said Capt. Brown. “I also invited them to come aboard when we become operational again in 1997.”

Last September, the CVX team got its chance to view life aboard a carrier. And *Ike* crew members got their chance to give the team their concerns about today’s carrier design.

“We talked about the general size of the ship, including draft, width and stability. We also discussed the catapult and arresting gear design, as well as the need to launch and recover aircraft simultaneously,” said Commander Richard Schwenk, head

of *Ike*’s Complex Overhaul Department.

“The team had some new ideas, such as the possibility of using electromagnetic catapults instead of steam.”

Another aspect of the CVX team’s efforts will be to address quality-of-life issues in its new designs. “We took them to a few of our new berthing compartments to show them what it is like to live on a ship,” said Cdr. Schwenk. “I think they were surprised to see the small areas that Sailors live in. Reducing the manpower needed to run a carrier would certainly allow each person to have more space.”

The team also looked at some practical aspects of doing business on an aircraft carrier, particularly when dealing with supply issues. “One way we can improve the carrier design is with supplies,” said Dawn Doebel, logistics specialist on the CVX team. “The best way may be to keep the supply storerooms centrally locat-



J03 Oscar Sosa

Opposite top, the crew of *Dwight D. Eisenhower*, shown transiting the Suez Canal in 1990, had the opportunity recently to express their views on the design of the next-generation aircraft carrier. Opposite, *Ike*’s navigator Cdr. Will Dossel explains to members of the CVX design team what navigation equipment should be replaced on the new carrier. Above, the CVX design team is considering computerizing the control plates that Damage Control Central uses to monitor reports during an emergency. The computerized plates would automatically display critical information such as damage and watertight integrity.

ed. This could save time and manpower by not having Sailors running all over the ship to get what they need.”

Some other improvements that may be made on the CVX include new diagnostic sensors, automation of the bridge, and computerizing maps of the ship (known as plates) used by Damage Control (DC) Central.

“Replacing the DC plates will help out greatly,” said Chief Damage Controlman Thomas Webb of *Ike’s* Engineering Department, Damage Control Division. “When you’re in a repair locker and there’s a problem, computerized plates could show you where the damage is, as well as the effects of the problem.”

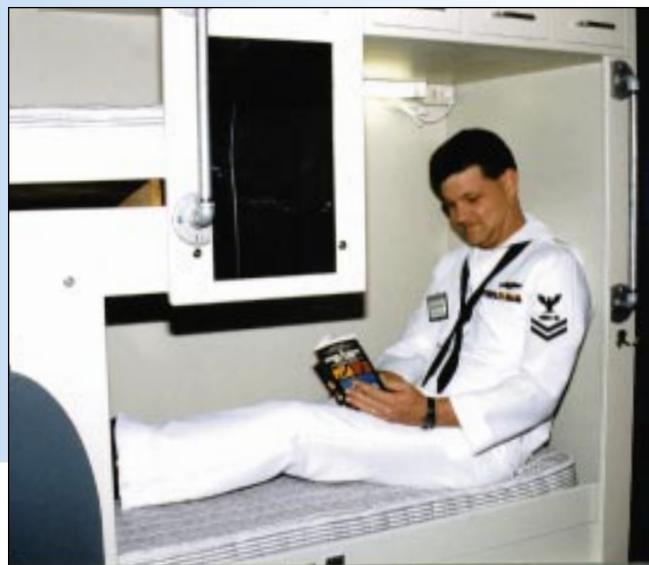
According to David Anderson of the CVX team’s Manpower Division, the bridge could definitely be redesigned. “Instead of having all kinds of gauges and diagnostic sensors spread out on the bridge, we may be able to consolidate the systems and use flat panel displays that provide information from any gauge on the bridge. Also, we’re looking to move away from paper navigation charts and start using CD-ROM, which will save time and space.”

The team also plans to improve the efficiency of various operational aspects of aircraft carriers, such as Air Operations located just forward of the Combat Direction Center. “We want to eliminate ineffective ways of doing tasks,” said Doebel. “We’re looking at replacing the Plexiglas boards in Air Operations.



PHAN Joe Hendricks

**State-of-the-art is a key phrase for the CVX design team while looking for ways to update carrier technology. One possibility is to computerize, using CD-ROM technology, navigation charts such as the one pictured above aboard *George Washington* (CVN 73). The CVX team is exploring different ways of enhancing shipboard quality of life. Right, TM1 David Swiney (SS) demonstrates a NAVSEA Systems Command mock-up of future berthing.**



It’s inefficient to write on the boards backwards with a grease pencil, because there isn’t enough space to do everything. The solution may be a screen that’s connected to a computer into which you can type information.”

Air Traffic Controller First Class (Air Warfare) Terry Cox pointed out the problem with equipment in the overhead of his work space: “The Air Control Room is located under the flight deck. When an F-14

*Tomcat* lands, some of our equipment gets knocked out. This doesn’t help when your job is to recover the planes.” The CVX team will investigate solutions to this problem, such as relocation of equipment.

Although a new design hasn’t been finalized, *Ike* Sailors gave the CVX team valuable input which will have a significant impact on the carriers of the future. “In the next decade when the new carrier is unveiled, who knows what types of planes may be used,” said Susan Carr, a financial specialist on the CVX team. “We’re looking at different types of designs for the flight deck and the carrier as a whole.

The main focus with CVX is how we can do more with less.”

When the new carrier is built, *Eisenhower* Sailors can be proud knowing that they were part of the Navy’s design process for the super-carrier of the future. n

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