

PCU RONALD REAGAN (CVN 76) NAVY'S NEWEST CARRIER— JUST ADD WATER

By JO3 Dan Ball



The standard issue ball cap with “Navy” across the brow attracts attention in Newport News, Va., location of the Precommissioning Unit (PCU) of the Navy’s newest carrier, *Ronald Reagan* (CVN 76). In approximately 25 blocks of the city, more than 1,700 PCU Sailors work in uniform. The “Navy” ball cap is worn by prospective crew members, and it signals PCU personnel to help integrate the newcomers into the command.

Sailors later exchange their “Navy” ball caps for *Ronald Reagan* plank owner caps—emblazoned with a symbolic horse and rider over the carrier’s flight deck (above)—after attending a mandatory indoctrination course that assists Sailors in a school-to-ship transition. Developed by PCU senior enlisted personnel, the training includes ship familiarization, basic damage control, CPR training, military knowledge, and the history of Ronald Reagan the man and the carrier’s shipbuilding process.

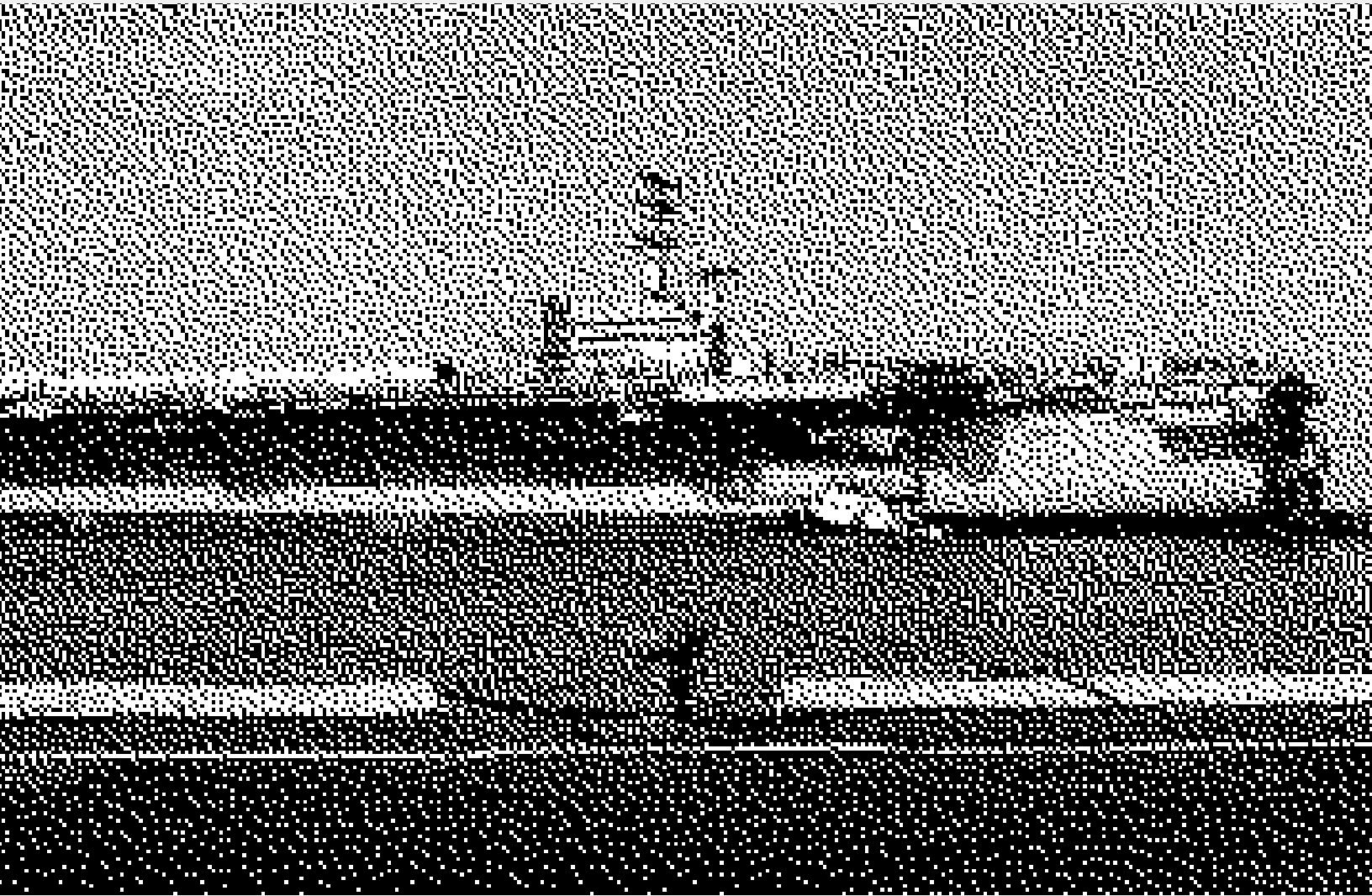
Commanding Officer Captain J. W. Goodwin gives the course introduction. He talks about what it means to be part of the team and what he looks for in Sailors.

Next, he directs the youngest Sailor in the room to read from an overhead projector the CO’s “four things I don’t like”: drugs, sexual harassment, alcohol abuse and lack of integrity. Each topic is thoroughly discussed by the skipper. He reiterates that Sailors reporting to the PCU are hand picked for outstanding qualities and are expected to perform at that level.

Capt. Goodwin started out in Attack Squadron 66, flying the A-7E *Corsair II* and then became a flight instructor, training students in the TA-4J *Skyhawk*. Several years and assignments later he transitioned to the F/A-18 *Hornet* in Strike Fighter Squadron (VFA) 25. His first command came in 1992 at VFA-94. In 1996 he served as Executive Officer of *Carl Vinson* (CVN 70), in 1998 became skipper of *Rainier* (AOE 7), and took command of PCU *Ronald Reagan* in 2000.

He firmly believes in teamwork. “This is the crew’s ship, not my ship,” Goodwin said. “If you tell me what your job is here, I will tell you exactly how it effects the rest of the crew. The way a precommissioning unit comes together is by teamwork; we get a high quality cut of

Ball cap photo by JO3 Dan Ball



Above, Ronald Reagan (CVN 76) under construction at Newport News Naval Shipyard, Va. Below right, Command Master Chief R. T. Conklin explains the evolution of a PCU. Below, Ronald Reagan CO Capt. J. W. Goodwin welcomes new arrivals.

Sailors. Some have done this before and some are brand new, but they are all highly motivated. I feel like a player-coach. I get to play a little bit and I get to coach a lot.”

After indoctrination, Sailors are up to speed on the command and the ship, and wearing their command ball caps they become part of a unit whose mission is to get the ship and personnel ready. They become watch qualified. Working out of shipyard offices while the ship is under construction, they make weekly familiarization visits to their prospective spaces on board *Ronald Reagan* and witness the evolution from bare steel and wires to finished bulkheads.

Command Master Chief R. T. Conklin came to PCU *Ronald Reagan* from VFA-15. With more than 30 years in the Navy, Conklin is no stranger to large commands.



He was Command Master Chief on board *Dwight D. Eisenhower* (CVN 69) and former Force Master Chief Naval Surface Force, Atlantic Fleet.

Conklin said his priorities are to support the CO, be the advocate for the crew, and lead the chief’s mess.

One of his responsibilities is

to ensure that undesignated Sailors attend an “A” school. Next comes specialized training needed to run a new carrier with new equipment. This could mean traveling to training at different bases, bringing equipment to Newport News, going directly to the

manufacturer to train, or going on temporary additional duty (TAD) aboard another ship, which is a big help to new Sailors. “When we send them out to ships they are



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going to come back and measure *Ronald Reagan* against that frame of reference, so we set our standards high,” Conklin said. “From the chief’s mess to the very junior Sailors, we maintain exceptional standards. That helps our Sailors feel proud to be part of the team and keeps them setting goals to accomplish.”

Petty officers like Aviation Boatswain’s Mate (Fuels) First Class (ABF1) (AW) Raymond Grey take action. “As leading petty officer, I’m responsible for getting the junior guys certified for watch stations in the department. I organize detachments for cruises, firefighting school and crew certification. Sailors learn a lot by coming here.”

The response to the TAD assignments is outstanding. Sailors aboard other ships are more than accommodating to their adopted brethren. Even amidst action like Operation Enduring Freedom, they understand the mission of the *Ronald Reagan* Sailors under their wing. The PCU’s goal of training, training and more training gets accomplished, and the TAD Sailors become more well rounded.

“I just came off shore duty and wanted to get my re-quals,” said Aviation Boatswain’s Mate (Electronics) First Class (AW) Rafael Corral. “I went with 14 guys from the PCU to *Carl Vinson*. Everyone was excited about going to sea and seeing the ports, but when the September 11th incident happened, port calls were cancelled. But that was okay. The whole crew came together, worked incredibly hard and got the experience we needed to bring back to our ship.”

Deploying Sailors to different ships around the world greatly benefits the ones back in Newport News. The TAD Sailors work with real equipment in real sea conditions. “A brand new Sailor has nothing to really base his school training on,” Corral said. “When they go on TAD they get to see how their training applies to almost everything they do. Then they come back to the PCU and teach the Sailors here what to expect.”

Training provides a full work day for PCU crew members, while evenings can be spent at area movie

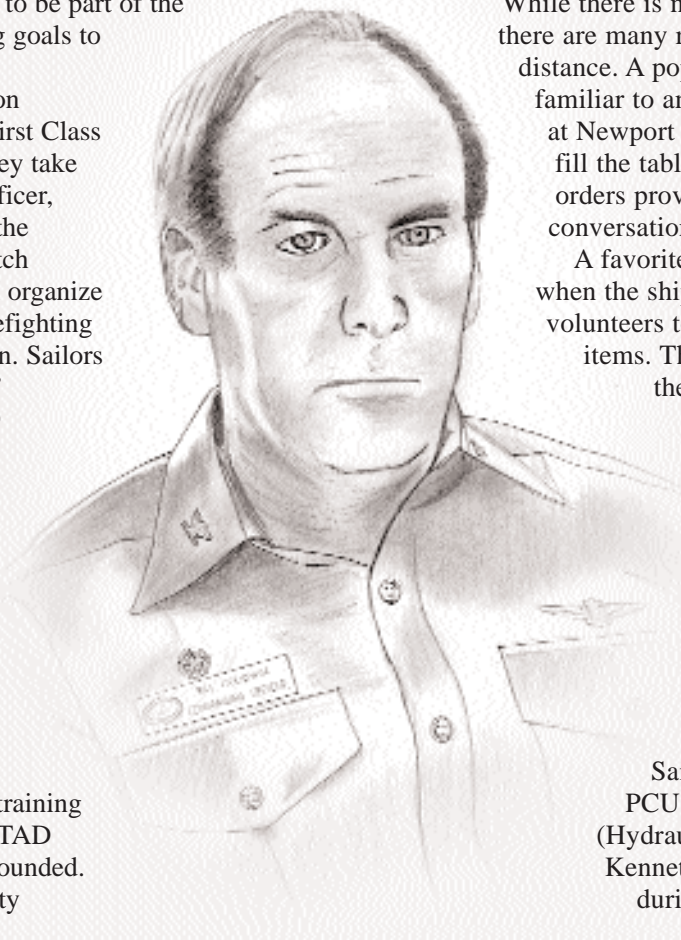
theaters and nearby shopping malls. The PCU is also close to Virginia Beach, Fort Story, Little Creek, Colonial Williamsburg, Busch Gardens and Norfolk. For married Sailors, good housing and schools are nearby.

While there is no mess hall at the command, there are many restaurants within walking distance. A popular diner is Eddie’s, familiar to anyone who has been stationed at Newport News. During lunch, Sailors fill the tables while barked kitchen orders provide “background” for conversation.

A favorite event happens once a month when the ship’s mess crew calls for volunteers to critique potential menu items. The word travels fast around the command and a line forms outside of the host building. The days of black-and-white labels on generic food are over. Now, first-rate entrees, desserts, salads and beverages are served for all to sample as the vendors vie for a slot on the Navy menu.

For many *Ronald Reagan* Sailors, this is not their first PCU. Aviation Boatswain’s Mate (Hydraulics) First Class (AW/SW) Kenneth W. Letexier, who served during the final weeks of PCU *Harry S. Truman* (CVN 75), said it is interesting to be part of the beginning this time. “You see the putting together of the whole command, and lay down all of the guidelines and administrative tools. It becomes the groundwork for how the ship will be run in the future. The example you set today will be the standard that future crews go by.”

For PCU *Ronald Reagan* personnel, “setting the example” seems to be the motto, and many of the Sailors expressed an interest in extending their tour for the first deployment. “I came here and saw the ship basically in pieces,” ABF2 (AW) Edric Kidd said. “Then I learned what was going on and saw parts of the ship coming together, our spaces coming together, the crew coming together, and it makes me want to be there for the first deployment. I want to see what all of our work accomplished, and really be part of a brand-new ship.”

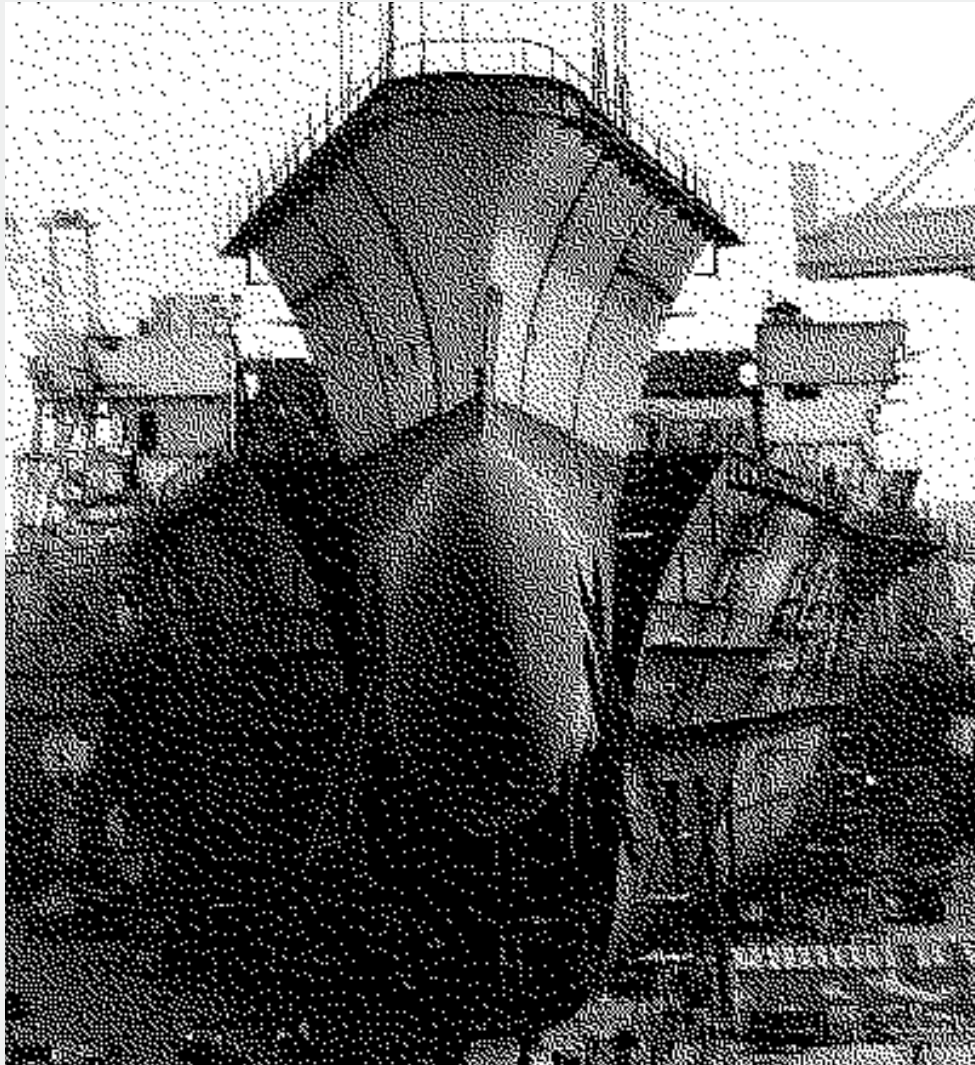


**“FROM THE CHIEF’S MESS
TO THE VERY JUNIOR SAILORS,
WE MAINTAIN EXCEPTIONAL
STANDARDS.”**

—CAPTAIN J. W. GOODWIN

Illustration by DM2 Arturo Chavez

OK TWO WIRE! RONALD REAGAN (CVN 76) RAMPS UP NEW TECHNOLOGY



By JO3 Dan Ball

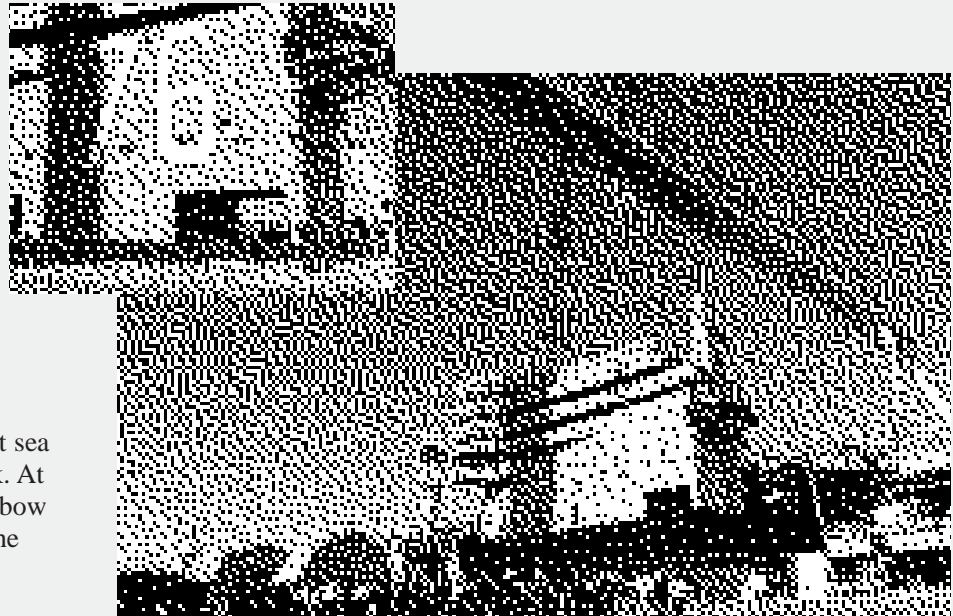
In 1995 Newport News Shipbuilding engineers began designing the ninth *Nimitz*-class nuclear-powered aircraft carrier, *Ronald Reagan* (CVN 76). Modern technology and experience gained from building the previous *Nimitz*-class carriers enabled the engineers to produce what they call a three-dimensional electronic product model environment of the ship—a computer-generated model used for exploration, configuration and experimentation before the first steel beam of the actual ship was laid. Advanced methods like this brought forth major carrier innovations for CVN 76, including a new island house, bow design and flight deck layout.

“This is the first carrier since *Nimitz* that has had any

major redesign work,” said Robert Gunter, Jr., Northrop Grumman/Newport News Senior Vice President, Aircraft Carrier Program. “The carriers after *Nimitz* would be termed with a little ‘m’ for modified, but we looked at CVN 76 as a big ‘M’ because 60 percent of the drawings had to be changed to incorporate all of the improvements we made to the ship.”

Ronald Reagan's keel was laid in 1998, then hull construction began, and two years later a newly designed bulbous bow (above) was attached. The lower portion of the new bow protrudes forward from the ship in a bubble shape. Odd looking or not, the new design has some practical applications. It adds buoyancy to the bow,

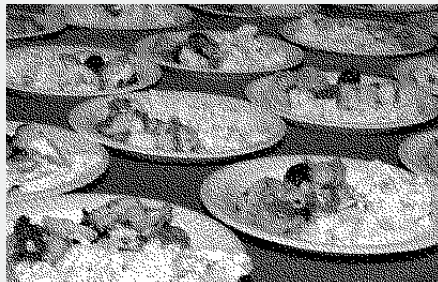
Ronald Reagan (CVN 76) incorporates many innovations, such as a redesigned island house with a new weapons elevator located at the rear. The island house, shown here during installation, provides roomier spaces for the “air boss” and navigators and better views of the flight deck.



reducing drag for better handling at sea and providing lift to the flight deck. At 722 tons it far outweighs previous bow designs, but it is so effective that the Navy is considering retrofitting all *Nimitz*-class carriers with it.

The new island house is the same height as older versions and is placed in the same location, but is 20 feet longer and has one less deck. This increases the dimensions of the interior spaces to allow larger windows, ease of movement and space for future technology. Notable is the redesigned primary flight control station. The new design gives the “air boss” larger windows and a

270-degree view of the flight deck. On the navigation bridge, digital instruments replace analog versions in a “glass bridge” similar to the “glass cockpit” in newer aircraft.



Newly designed consoles let the bridge crew read touch screens instead of dials and gauges. Visible from the outside is an upper stage weapons elevator with port and starboard access. The new elevator is built into the rear of the island, and will reduce hangar bay backlog and speed up the weapons loading process. Also, the mainmast, aft mast and topside antennae are arranged differently than on other carrier islands.

Construction of the island took place completely indoors, making it much easier for the builders to access spaces and equipment and avoid inclement weather. In November 2000 the 650-ton island was moved from the construction site and raised to the flight deck in one piece by Newport News Shipbuilding’s superlift crane.

There are several changes on the flight deck of *Ronald Reagan*. A new design layout extending the port side angle of the landing area has moved the foul line clear of

jet blast deflector two. The carrier can simultaneously launch an aircraft from catapult two and trap on the landing angle. Another visible change is a three-wire arresting gear design instead of the traditional four-wire system. The number two wire, located in the same spot as number three on other carriers, will be the “hit wire.”

The new system uses polycore cables designed to withstand more traps than steel cables and extra-large pulleys to reduce maintenance and man-hours, and provides the capability to land potentially larger and heavier aircraft. The former setup of four arresting gear engines and one barricade engine is now four arresting gear engines with two of them

interchangeable as barricade engines. The removal of one engine greatly frees up the space to flight line maintenance crews. The four jet blast deflectors are also new, incorporating a one-panel design with a side-panel cooling loop to keep exhaust gasses from harming flight deck personnel.



DM2 Arturo Chavez

Crew members are invited to sample foodstuffs, above left, that are competing for slots on the ship’s menu. Above, a Sailor stands duty at the PCU ship’s store. The store stocks snacks, mementos and uniform items for visitors and the crew.

Adjacent to the hangar bay, the Aircraft Intermediate Maintenance

Department (AIMD) will work with 18 Consolidated Automated Support System (CASS) benches. The system’s Navy standard automatic test equipment enables the fleet to test electronics at AIMDs ashore and afloat. The equipment station, or bench, provides interchangeable configurations that are engineered to

RONALD REAGAN (CVN 76) FACTS

Current Schedule

October 2002: Crew moves aboard
February–March 2003: Sea trials
28 March 2003: Contractor's delivery date
10 May 2003: Commissioning
Summer 2003: Shakedown cruises
Summer 2004: Arrive at home port, NAS North Island, Calif.

Statistics

- Top speed exceeds 30 knots
- Powered by two nuclear reactors that can operate for more than 20 years without refueling
- Expected to operate in the fleet for about 50 years
- Typical *Nimitz*-class ship carries 80-plus combat aircraft
- Three two-inch diameter arresting wires on the deck bring an airplane going 150 miles per hour to a stop in less than 400 feet
- Home to about 6,000 Navy personnel



- Carries enough food and supplies to operate for 90 days
- Daily newspaper, and radio and television stations
- 20,000 meals served daily
- Distillation plants produce 400,000 gallons of fresh water from sea water daily, enough to supply 2,000 homes
- Nearly 30,000 light fixtures and 1,325 miles of cable and wiring for 1,400 telephones; 14,000 pillowcases and 28,000 sheets
- Towers 20 stories above the waterline
- 1,092 feet long—nearly as long as the Empire State Building is tall
- 4.5-acre flight deck
- Four bronze propellers, each 21 feet across and weighing 66,220 pounds
- Steering accomplished by two rudders, each 29 feet x 22 feet and weighing 50 tons
- Four high-speed aircraft elevators, each more than 4,000 square feet

keep pace with improved technology and new requirements. Previous carriers were outfitted with 8 benches.

Ronald Reagan is using the fiberoptic Integrated Communications and Advanced Network control system. The system uses new automated consoles that replace the old, red "coke machines" for interior communications. Three small touch screens replace large alarm panels at the central control station. Touch screen consoles will also provide

instant information on the fuel system status and quality indicators in the 3.5 million-gallon jet fuel system.

These innovations came about through advances in technology and requests from the fleet. The challenge was not only to make the newest carrier the most advanced in the world, but also the safest and most effective. *Ronald Reagan* is well on the way to achieving

The ship was launched in March 2001 and directed by tugboats to her present location for further construction.

