

## USS *George H.W. Bush* (CVN 77) Shipbuilders' Log

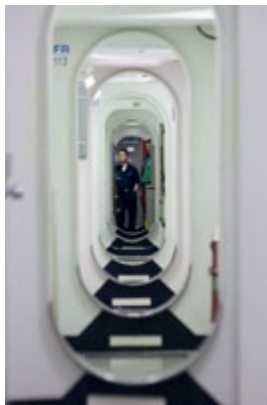
Day One - February 13, 2009

### *Getting Oriented*

Armed with my laptop bag, overstuffed duffel bag and what I like to call my “reporter’s bag,” I struggle to get up the gangway of *USS George H.W. Bush*. I have no idea what to expect – I’m excited and nervous all at once. It’s about 2 a.m., and the hallways where my room is located are dimly lit with red light. I’m dropped off by a Navy escort. Once in the room, I find that my roommate has already claimed the bottom bunk. I change for bed, then try to figure out how I’m going to climb up the side of the bed to get into my bunk. – **Lauren Green**



I board with Lauren Green about 2 a.m. and, after getting our bags checked and picking up our boarding materials, a Navy escort helps us find our berthing areas. He is apologetic and a little embarrassed because we go in a couple of circles before we find my space – O3-67-0-L – but I tell him not to worry. I know I will have a hard time finding my way around the next day. (In fact, I was still getting lost on Day 4!) I check my clock as my head hits the pillow: 2:30 a.m. – **Jim Roberts**



It’s 6:30 a.m. and time to muster with my group. Thinking that all I have to do is walk a few frames, check in with my team and later be able to shower, I head down the hallway in my sweats. Shortly after ending up in a passage area with blue tile marked “Admiral’s Walkway, Official Business Only,” I knew I was lost. I quickly headed back to my room, embarrassed. I showered and hoped someone from my team would rescue me from my room. Knock, knock ... it was Chris Oxley, my teammate and shipyard photographer. I give him a big hug and breathe a sigh of relief. Chris shows me the way to my team’s muster location. – **Lauren Green**

The next morning is kind of like the first day of high school – the upperclassmen all seem to know where they’re going, but the freshmen – the first-time riders like me – are fumbling around, looking at the “You Are Here” maps on the walls and trying to orient themselves. Everyone tries to look confident about where they’re headed, but it’s not uncommon to see people going down stairs or a passageway, only to see them a minute or two later going the other direction. – **Jim Roberts**

*“Subcontractors are shipbuilders too”*

8:20 a.m. About 200 people – Navy personnel, contractors and shipbuilders – are scattered around the hangar deck of *USS George H.W. Bush*, looking out through the open elevator doors, port and starboard. Several thousand others are manning duty stations around the ship. Most have been onboard since very early that morning, or even the night before. We are all milling about in anticipation of taking the ship out to sea for the first time. Very slowly, the view outside begins to scroll across the open window, scenery moving toward the back of the ship, as the pushing, hard-working tugboats nudge the ship into the channel churn the water below. *USS George H.W. Bush* is underway for the ship’s first voyage, with some help from pilot tugs and the U.S. Coast Guard, until we get out into the open channel.



One of the men standing at the elevator door, looking out over a crisp, sunny winter day in Hampton Roads and wearing a Harley Davidson baseball cap is **Robert “Rob” Curling**, field service engineer for Jered LLC, the maker of the ship’s elevator. “We do a lot of work for Northrop Grumman,” Rob says. “We built the aircraft elevators for *USS Ronald Reagan* and for *USS George H.W. Bush*. And we build the anchor windlass and several other products and systems onboard the carriers.” Jered LLC is based in New Orleans and is a large supplier to the shipyards – one of the shipyard’s larger suppliers from the state of Louisiana. “We also do a lot of work for Gulf Coast,” he says. “We build the well-deck door and elevators onboard the LPDs, among other mechanical and electronic systems.”

Rob has been on many sea trials over the years – most recently onboard *USS Green Bay*, a U.S. Marine Corps amphibious transport ship out of the Gulf Coast Avondale facility – but this is his first carrier trial. The stakes may be higher, and the ship larger and more complex, but sea trials are all fundamentally the same. As a key supplier to the shipbuilder, Rob is there to make sure his systems meet the company and Navy standards. “Sea trials, particularly builder’s trials, are best when there are no surprises,” he says. “We hope for and expect the systems to operate as advertised and anticipated. When the trials are routine and even boring, that is a good trial for us.”

“We do work around the world,” he continues. “I just got back inspecting a system we sold to Guam and another one we sold to a shipbuilder in Korea. But our work in shipbuilding is very important to our business. We are very proud to be building and supplying several systems to the U.S. Navy on this ship.”

As soon as the ship is turned and clears the pier, *USS George H.W. Bush* is operating under ship’s power, on her way out to sea. – *Margaret Mitchell-Jones*

### *Sight-seeing on the flight deck*



Bay Bridge-Tunnel. – **Jim Roberts**

After our first muster and quick breakfast in the CPO Mess, we spend most of the morning on the flight deck, watching as the tugs pull us away from the pier. I spend some time talking to **Mark Haller**, the president of Tri-Tec Manufacturing, as we cross the Hampton Roads Bridge-Tunnel. He is from Washington state, so I point out some of the sights for him – Fort Monroe to the left and the Norfolk skyline to the right – and I tell him to keep an eye out for the lighthouses at Fort Story as we cross the Chesapeake

### *Is it rope or line?*

We've just finished watching the ship leave port from the flight deck. Next stop was the ship's fan tail. As I stand there with land leaving sight, I spot crew members cleaning a huge rope with soap and water on the deck below me. Curious to know why they were cleaning rope that they clearly needed to use again, I approached a sailor to ask. **Seaman Rene Barriere**, like many others, was on his first cruise. When I asked exactly what he was doing with the rope, he kindly said, "Please don't call it rope. That offends us. It's line." This was the beginning of a long journey – there's a lot to learn on a ship. I swear there's a nickname for everything. He went on to explain that the lines are cleaned to remove rust to prevent the lines from rusting. Line is used to secure the ship when in port; if it begins to rust, the rope could break from deteariation. – **Lauren Green**



### *"Man overboard" drill*

Our first lunch is punctuated by a message from **Capt. Kevin O'Flaherty**, the commanding officer, and then by a "man overboard" drill. The crew and shipbuilders take longer than the desired seven minutes to muster. At a meeting afterward for personal coordinators – the folks responsible for the Shipbuilding employees – the purser, Shelton "Shane" Laws, tells us we should expect another drill, and we should try to muster faster, but the Admin Officer, whose office the purser shares, tells us we did a good job, especially for a first time. He says any other drill during these sea trials will be for "the real thing." – **Jim Roberts**

### *Process Excellence in action*



There is an array of tests and demonstrations taking place on the flight deck. My assignment: jet blast deflectors (JBDs). **Mike Anderson** of the Machinery Installation Dept. (X43) gives me an explanation from top to bottom about what a JBD is, how it works to deflect the jet blasts of departing jets, and how photogrammetry improved the process of constructing Bush's JBDs. "We've used photogrammetry in the past," he says, "but with this boat, we took it a little bit further. We can see the end product before construction to make sure all parts, from part one to the very last part fits-it's like a giant puzzle." – **Lauren Green**

### *Catapult testing*

AB2 **Rick Paulino** is straddling the No. 1 catapult for no-load testing – the first time the catapult has been shot at sea. “We had a little suspense there,” he says, “but for the first one, that was pretty smooth. That shoot went good.” Why does he straddle the catapult? “You don’t want ‘creep and grab,’” he says. “You don’t want it to move and grab the shuttle. You shoot it, then the grab follows it.” – **Jim Roberts**



### *RHIB deployment demo*



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1:20 p.m. With contractors, shipbuilders, crew and NAVSEA observers all decked out in bright orange flotation jackets clipped snug under our chins, we all stood by as the crew readied the rigid hull inflatable boat (RHIB) to test the side launch davit. In a scheduled test to check the equipment and crew training procedures, teams got ready to cast off. Four crewmembers climbed onboard the small boat and took their positions standing along the side of the small boat, as other crew held the craft steady, trailing lines from the front and the back of the boat through cleats onboard the carrier. The four crew in the small boat, including one rescue swimmer decked out in a survival wetsuit, stood with knees propped against the inflated edge of the boat. They are holding onto four knotted lines – which will be “lifelines” if the boat were to flip during its transition down the side of the carrier, into the cold water about 120 feet below.

In a carefully choreographed maneuver, crew members are trailing lines at either end of the boat, threading through cleats, while the davit operators running the motorized davit launch the boat over the side. The crew standing in the small boat are rappelling the knotted lines hanging to the water’s surface, as the boat slowly lowers down to water’s edge without a hitch. And then the procedure is repeated in reverse as the boat is raised back up again.

After the boat is cradled and the lines tied down, the crew walks off, as though this is a routine operation. And in time it will be. But for today, this is another key trial event that can be successfully entered into the log books.

We can see the pride on the crew’s faces – and a few contractors also – to know that the very important job of launching and retrieving the small boat is complete. I asked the crew rescue swimmer why he’s onboard during the launch and retrieval. “Whenever you have a transition that concerns the ship’s leadership, we send a rescue swimmer out,” he says. “This underway transition is a first time for this crew, and it is always possible that someone could end up in the water. The water is very cold. That would not be a good place to be this time of year!” –

**Margaret Mitchell-Jones**

### *PALS testing*

While the no-load catapult testing continues, an F-18 starts to fly circles around the ship – a sign that Precision Approach and Landing Systems (PALS) testing has begun. Shipbuilder **David Hamm** tells **Gaylon Montgomery**, our videographer, where to stand for the best shots – in the centerline at the stern of the ship – and directs me to talk to **Daryl Welch** of the Machinery Installation Dept. (X43). Daryl explains the electronics systems being tested and lights up when I ask him how he feels to be on sea trials. “Awesome,” he says. “I’m like a big kid in a large Home Depot when I come to work. Really, I love it. The stuff we get to play with – very few people get to do what we do, and to see it work, it’s pretty awesome.” – **Jim Roberts**

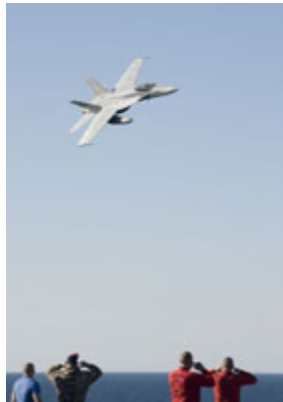


### *“This is my last one”*



Master Shipbuilder **Paul Willis** has 42 years of shipbuilding experience and has been on 15 sea trials, including a *USS Nimitz* availability in 1982 and every new construction carrier since *USS Theodore Roosevelt*. He is a construction supervisor on CVN 77 and worked closely with the Red Dog film crews in the making of the “Mega Carrier” documentary. “This is my last one,” he says, standing aft of the island on Friday afternoon. “I’m retiring after this one. ... It feels good to really get this ship to sea and see what it can do. I think it’s going to be a good ship.” – **Jim Roberts**

### *“There goes my hero!”*



The highlight of Day 1 has to be the F-18 fly-bys that end the PALS testing. **Capt. Kevin O’Flaherty** announces over the PA that the pilot wants to do one more pass on the port side of the ship before returning to NAS Oceana. He approaches – breaking the sound barrier? – and does a barrel roll as he passes the port side of the ship. As more and more people come to the flight deck – many of the crew members with cameras in hand – the pilot does it again and again, to more applause each time. On his second-to-last fly-by, one of the crew members laughs with a shipmate and quotes a Foo Fighters song: “There goes my hero!” – **Jim Roberts**



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## Day Two- February 14, 2009

### *Stores Conveyor System*



It is “the next morning” after a very busy day of activities and about 75 trips up and down stairs and ladders and through winding hallways of the ship. It is also after our first night spent sleeping in the upper bunk of my assigned crew space and navigating unfamiliar hallways and ladders to my assigned crew “head” (or water closet and showering facilities – mine is three hallways and one ladder down away!) My berthing is level “O3” which is three levels “over” the main hangar deck. The “main deck” hangar is the covered area three levels underneath the flight deck. When the air wing is onboard, the aircraft are stored down here. It is where most gear is loaded into and then moved from.

During sea trials, the hangar deck is the “main street” of the ship – where we meet up with other sea trial teams, where crew units meet for physical training or stand-up meetings, the place where I can get to anywhere from anywhere on the ship – especially that first day when I get lost and have to reorient to get to where I am going.

The outline of several square hatches of different sizes are painted on the floor. One of the hatches has been removed, and safety pylons connected to a safety chain encircle one hole in the deck, and I can see a crewmember with a walkie-talkie standing in a hole in the deck, with the floor of the main deck about shoulder high. Standing nearby are three NAVSEA inspectors learning about the stores conveyor system that **MM1 Dawn Fortenberry** is demonstrating for them.

“We’re looking at how the equipment handles, testing the safety features and the equipment operation,” says **Donald “Keith” Andrews**, an inspector for SupShip Newport News. “We are also seeing if the crew is following the procedures outlined for operation. We want to be sure the crew has the equipment they need and know how to use it properly.”

“There are two stores conveyors – one goes from the main deck to the seventh deck (below the hangar deck) and the other one goes down to the sixth deck,” says NAVSEA representative **Bryan Plunkett**. “They are designed to not crush the stores boxes, to travel at variable speed and to deliver materiel from hangar deck level to the open door level it is programmed to go to – used to move incoming supplies to decks below.” This is a case where the automated equipment is replacing a transition that used to be done all by hand, through hallways and down ladders. – **Margaret Mitchell-Jones**

### *Dropping bombs*

What has 64 doors, can carry up to 10,500 pounds at 100 feet per minute and goes from seventh deck to hangar bay? Bush’s newly designed weapons elevators. **Aviation Ordinance Chief Corey Grojean** and **Mark Culp** of the CVN 77 Carrier Construction Dept. (X05) took me down to the “bomb room,” as I like to call it, and showed me how bombs, missiles and various other weapons are carried to the upper levels to be placed on the ship’s airplanes. “This is a brand-new system, totally hydraulic,” Grojean says.



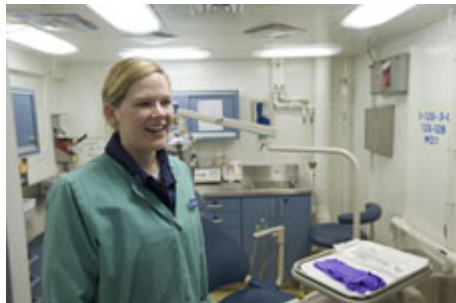
Culp adds, “The system is operated by touch screen, no more buttons or levers. This is fancy stuff here.” – **Lauren Green**

*“Will you interview us?”*

As I was interviewing **Corey Grojean** and **Mark Culp** about the ship’s weapons elevators, two bright-eyed young men sporting green fatigue uniforms stopped me and asked, “Will you interview us?” Sure, why not? Besides, I was dying to ask what the difference was between the green and the blue fatigue uniforms. **Mike Rivera** and **Kevin Jones** are military policemen; for both, it’s their first time to sea. “This is the first time we finally get to get away from the shipyard and the Navy base,” Jones says. “I’m planning on re-enlisting because I’m excited and ready to protect our country and the world.” Rivera later explains to me that the blue uniforms are a working uniform for selected rates. “Green is for the Navy police, like me,” he says. “I hope to wear the blue suit someday; that’s where I want to be.” – **Lauren Green**



*“Dentists are crewmembers, too”*



**Lt. Gershon** has been with the crew of *USS George H.W. Bush* for the past six months. Dr. Gershon has been in the Navy for three years, and this is her first afloat tour. After graduating from college, she attended dental school in Nebraska, courtesy of the U.S. Navy. Dr. Gershon is going to relieve **Lt. Stanchak** as general officer when Lt. Stanchak completes her tour with the Navy, in June 2009, after which she plans to enter orthodontist school.

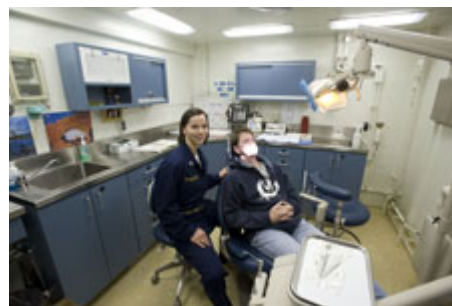
“We have a captain and three lieutenants who are dentists, a hygienist and about eleven dental technicians onboard,” Dr. Gershon says. “When deployed, there is also an oral surgeon onboard, and the air wing brings a flight surgeon with them. In the dental area, there are four exam rooms, an X-ray room equipped to take digital panoramic X-rays, some offices, a records room and supply room.

“We have a dental record for every crew member – that’s over 3,000 records,” she continues. “And we get at least a thousand more when the air wing moves aboard. We can do anything out of this dentist office that you can do at your dentist office – exams, X-rays, preventative maintenance, extractions, drill and fill cavities and even start root canals. We have a lab onboard that can process castings and porcelain for crowns.”

Last week there was a broken jaw onboard, and the dental office was able to stabilize the jaw and send the patient to the hospital, since the ship was in port,” she said.

The dentists onboard see about 25 patients a day for exams (every crewmember is required to have an annual dental exam), and they schedule dental appointments every hour on the hour. “People are always surprised at the amount of dental and medical capability we have onboard,” Dr. Gershon says. “This is my first ship and my first deployment, and I’m very excited to be a member of this crew. As a doctor, I enjoy having the opportunity to provide continuity of care – to have patients that we see regularly, so we can catch dental issues before they become big problems, to help our Navy crewmembers develop good dental habits.” While she has never been deployed before, she did hear that there may be opportunities to provide dental support to local communities they may visit on port calls.

– **Margaret Mitchell-Jones**



### *Dessert, anyone?*

Another day means three more meals – four for some. Aboard the ship, four square meals are served: breakfast, lunch, dinner and “midrats,” or midnight rations. Main galley alone serves about 2,000 hungry sailors for each meal. That’s 5,000 pounds of beef per day, just for that galley. When the crew is full, there are galleys open that serve well over 5,000 crew members. HTFN (Home Maintenance Technician) **Misty Fortunas** is on Bush for her first cruise. “It tickled my tummy to feel the ship move for the first time,” she says. Misty backs up the galley’s cooks by serving food in the food lines. “I love my job,” she says. “I get to meet a lot of people and put smiles on their faces. I’m usually the one handing out desserts.”

– **Lauren Green**



### *“People my age ...”*



Master Shipbuilder **Roy Watson** is showing off some of his work: the No. 6 air conditioning unit near the stern of the ship. It intakes 3,300 gallons of chilled water per minute and utilizes a 2,000-gallon tank of refrigerant to cool just one of six zones aboard the ship. Watson worked as a fitter for more than 30 years before taking on the air conditioning installation job. “It’s a great feeling when someone can come in here and switch this and start it up for the first time and it runs,” he says. Roy says working on the A/C units was a great learning experience, especially for someone who worked in “the structural world” for so long. “People my age usually whine and cry about how it used to be in the past,” he says. “Well, I couldn’t do that because I didn’t know how it used to be. ... It’s a really good thing for you, when you get to be 55, 60 years old, trying something new if you get the opportunity.”

– **Jim Roberts**

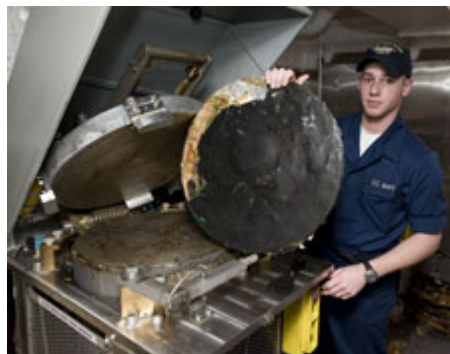
### *“A totally different animal”*

**MM1 Dan Krys** runs one of two Oxygen plants aboard *USS George H.W. Bush*, creating and storing up to 250 gallons of pure liquid oxygen – primarily for the pilots but also for medical use. Krys has also served on *USS Tripoli* and *USS George Washington*, but the Oxygen plant aboard Bush is new to him. (Charles Doeppe, the X42 general foreman who installed the plant, says,

“This is just a totally different animal.”) Kryz loves his job and the opportunity that the Navy has afforded him. “I wouldn’t do anything else,” he says. “I came into the Navy with just a high school education, and now they’ve got me doing stuff like this. If you would have told me that when I was 18, I would have said I’m probably not the person for that, but the schooling that I got in the Navy teaches me all kinds of stuff.”

### *The Maytag repairman*

**Scott Ahearn** of the Technology Development Dept. (E30) is checking the “hockey puck” makers – the machines used to compress plastic refuse into easy-to-dispose-of discs. All six aboard *Bush* are “working as expected,” but he doesn’t feel like his job is done. “I don’t really feel like I’m finishing just yet,” he says. “I feel like we’re making good progress here. It’s good to be able to look at a space and say we don’t have to do anything more here and can hand this over to the Navy with confidence that it will work to our standards – and to my standards as well. I don’t hand over broken equipment.” So when will he feel like he’s finished? “I would say six months after acceptance trials when none of my machines are broken. That’s when I’ll put my feet up.” – **Jim Roberts**



### *The absolute bottom end of the ship*



**Gary Carter** leads us down a series of vertical ladders to the absolute bottom end of the ship. He’s showing off the aft steering gears he and his Machinery Installation (X43) team installed two and a half years ago. He did the same job on *USS Stennis* and *USS Reagan*, a point he sums up by saying, “I’ve been down here many years.” The sea trials have gone well, and although he’s too modest to say it, it’s obvious he’s proud of the work he and his team have done. “It’s a pretty tough system to groom,” he says. “The tolerances are real tight. ... Everything’s been running real

good, and the accuracy is good.” – **Jim Roberts**

### *Cleaning up the waste*

**Kenny Lupton** is showing us the VCMSSD (Vacuum Control Marine Sanitation Device). The system uses a vacuum instead of gravity to run the toilets and is the first time it is used on a *Nimitz*-class ship. Basically, the waste is vacuummed into a holding tank in the stern of the ship, treated with UV lights and discharged as bacteria-free water. (Kenny jokes that he has the “crappiest” job in the shipyard.) Although he had been reluctant to be interviewed or have his picture taken, Kenny lights up when talking about the system, which was drawn up for use on *USS George H.W. Bush* by fellow shipbuilder Stan Bonk. “It’s good to work with the Navy and sell these systems, turn them over and show them how to work these systems,” he says. And he’s having a great time on sea trials. “It’s been an experience,” he says. “They’ve got so many different new systems, it’s been a learning



experience. It's been interesting. I've learned a lot, as well as I think a lot of the other guys. It's been fun."



In the VCMSD, I also run into **Mark Haller**, the supplier I had met the day before. He is checking out Tri-Tec's actuators first-hand and loving every minute of his first sea trials. "We came out for the commissioning," he says. "When you know there's \$10 million of your equipment on a \$6 billion ship and it's sitting right in front of you and you hear the President talk, it was pretty emotional. ... The fact that we support the Navy – all of us at the company are passionate about what we do. It's pretty exciting because it serves a bigger purpose than ourselves and the company. We're thrilled to be here, and we're having a great time." – **Jim Roberts**

### *Shooting Stars*



It's 9 p.m. and **Gaylon Montgomery**, video producer, and I are headed for the highest, daily-manned point of the ship, the O9 level of the island. An hour before, we were at one of the lowest points in the ship, a shaft alley on the eighth deck. This jaunt will be one of many transitions made to cover the trials. According to my pedometer, we've covered about five miles today while documenting a dozen or more trials and ship activities. Now we're headed out into a cold, clear night to view a sight most people aren't able to enjoy very often.

The ship is far enough out to sea that the stars will have no competition from civilization's light, and we expect the Milky Way to be a bright swath of diamonds on black velvet. We're not disappointed. Lights at the front of the island paint the mast and yardarms above us with a glow like that from the embers of a dying fire. I had seen a similar view on *USS Nimitz* a number of years before and was struck by how the mast with that background of stars looked like a Star Wars movie prop. This time I would have the chance to capture it photographically.

The exposures are long as it's nearly pitch black, the ship is moving so the stars are blurry, and the ship's passage through the water shakes the ship as well; so nothing is as crisp as I'd hoped. But I think the results, if not the view alone, are good enough to have made the climb worthwhile. – **Chris Oxley**

## Day Three- February 15, 2009

### *“Fairly heavy rolls”*

At 0630, **Capt. O’Flaherty** makes an announcement on the ship’s PA: “We will get to the steering checks plus or minus five minutes of 0645 this morning. Smoking sponsons, if you can get out safely, are now open until 0645. At 0645, expect to take some fairly heavy rolls between that time and 0730 this morning.” This is the test I had heard the most about. Since we are not allowed outside “the skin of the ship,” I head to the hangar deck to see what the fuss is all about. A lot of people have assembled there, and when the “fairly heavy rolls” start, you can see people leaning into the turns and laughing. On the last day of sea trials, almost everyone I talk to tells me this was their favorite part of the trip. – **Jim Roberts**



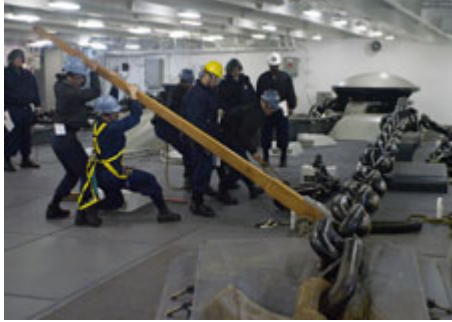
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### *Rock and Roll*



6:15 a.m. Chief’s Mess, and the captain has just announced the imminent start of the high-speed turns. So the clean plate, tray and utensils I just picked up are returned to their places, and I gaze back fondly at the waffles as we start for the ladders to take us up 12 decks to the 09 level on the island. Upon opening the door to the weather deck, we are greeted by 50 mph winds with gusts to 60. It’s a strong taste of what one can experience on a fast ship in bad weather, and this ship is fast. One of my cameras starts acting up, and the back-up camera is starting to follow suit, so **Gaylon** and I decide to drop down one deck to avoid the possible interference from the radars above our heads. On the O8 level, we find suitable places to frame the stern of the ship with radar domes and yardarms while we brace for the coming excitement. The fun is not long in coming as the ship heels quickly over in a turn causing one corner of the flight deck to drop well below the horizon. A minute or two in that position and then the deck is quickly moving in the opposite direction. As the starboard deck edge approaches, the ocean spray from waves hitting the side of the ship is blown up and over into mare’s tails of water. The wake shows telltale S’s behind the ship as short-lived evidence of our quick maneuvers. I leave the O8 level hoping I’d managed to keep the horizon somewhat level in the photos while bracing against the severe lean angle that far above the water. – **Chris Oxley**

### *The anchor windlass*



“The sound of an anchor being dropped freefall has been compared to that of an F-18 coming off the flight deck!”

Day 2 of testing -- we're up at the most forward portion of the ship -- frame 1 -- also called the Foc'sle -- where we are observing a test and demo of the anchor windlass, the machinery and process to release, drop and also raise the massive anchor and chain, in a control test and then at free fall, with Navy crew of seven performing specific tasks and training to perfect their anchor-handling process.



[View Video](#)

This job takes some skill and requires training -- the team is handling 60,000 pounds of anchor and chain. We learned that the chain is recycled from *USS America* (retired aircraft carrier) and the anchors are from *USS Independence*.

Standing by to observe the test is **Mr. Howard Chambly**, shipbuilder and general foreman in the Machinery Installation Dept. (X43), who works on all deck machinery. The machinery involved was built by a supplier; Howard and his crew were responsible for installing it and making sure it all works together. Howard has worked at the shipyard for 25 years.



“We install all of the machinery -- everything that moves on here, we installed it,” he says. “We are here to be sure that everything does what it's supposed to - - to make sure the brake doesn't overheat, that everything does what it's supposed to and it all works the way it should.

“I have been in the shipyard for 25 years,” he continues. “I started out as an hourly worker, as a helper, and worked my way up. I learned all of what I know on the job. This is my sixth (sea) trial -- I was on *Lincoln*, *Roosevelt*, *Washington*, *Stennis* and all the rest of them that came behind that. I do all deck machinery -- weapons elevator, aircraft elevator, all these shops, I work with all of that.”

When asked what it means to be here, participating in the sea trial for the last of the *Nimitz*-class carriers, he says, “Just knowin' that you worked on it, that we built it, and just being able to see it all work, being able to see it all finished -- that's a blessing to me. When you see the finished product -- that makes me very proud.”

I wondered aloud, now that this trial is soon to complete, what is next in store for Howard?

“As soon as this is finished, I'm supposed to be going right to work for 78 -- doing the planning - - getting ready for and starting construction on that ship.”

When asked if he's looking forward to going out on sea trials for the future *USS Gerald R. Ford*, Howard says, “Yes, I should be here for all that -- I don't plan on retiring anytime soon!” -  
*Margaret Mitchell-Jones*

### *AFFF testing*



**Brad Shook** watches the AFFF testing from the O7 deck on the island. The AFFF system is used to put out airplane fires on the flight deck and in the hangar bay. A volunteer firefighter in Gloucester, Brad started working at the shipyard four and a half years ago. “This is all I know,” he says. “I put in the fire main, AFFF – every fire system on this boat, I’ve worked. ... It’s pretty neat doing fire systems on an aircraft carrier and doing fire systems back home.” A pipefitter is walking the deck, inspecting the AFFF heads. I ask Brad why he isn’t down there. “They got it,” he says. “It’s too cold and windy out there for me.” A couple seconds later, he adds, “I’d go out there, but the rain suits aren’t big enough for me.” – **Jim Roberts**

### *In case of emergency*

TAO (Tactical Action Officer) **Jeff Moen** sits in the Combat Direction Center (CDC) and monitors what looks like at least 10 screens ensuring the Bush isn’t in any danger. “The CDC is the heart of the ship’s self defense systems,” he says. “We identify our friends and foe in this room. We have planes to attack, but if needed, the ship is equipped with missile systems and manned machine guns.” – **Lauren Green**



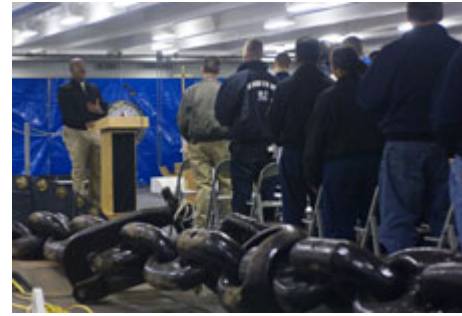
### *“Ready to go on day one”*



In the Carrier Air Traffic Control Center (CATCC), **Terry Mamril** is inspecting integrated communications terminals for SupShip. He’s done installations before, but it’s his first sea trials and his first time inspecting. “It’s a great experience to actually see the ship in action,” he says. “I’ve always been aboard ships pierside at Newport News or Norfolk.” While we’re in the CATCC, CDR “Mighty” Quinn, the Air Ops Officer, asks if we’ll send him some photos of the ship in action, since he’s leaving in a week for a tour at NAS Lemoor in California. The sea trials included helicopter landings and take-offs and some PALS flight operations, but no catapult launches or arresting gear landings. That will come during flight deck certification. “I’m bummed that I didn’t get to do what I came here to do,” CDR Quinn says. “But I’m happy that I’ve gotten our crew trained and ready to go on day one, so I consider that a major accomplishment.” – **Jim Roberts**

### *From warship to worship*

At 1630, **Chaplain Wiggins** leads a Protestant worship service – complete with the ship’s choir, a keyboard player and a drummer – in the anchor windlass area in the bow of the ship. It has been moved several times because of the test schedule, but even on short notice, a congregation of about 50 crew members and shipyard workers shows up. **LCDR Matthew Rivers**, Deputy Command Chaplain, welcomes everyone, joking that the service will be followed by a potluck supper in the O2 mess – “all-you-can-eat and sponsored by Sysco foods.” On a more serious note, he adds, “What a great thing it is to know that our government makes such a priority to make worship available to all of us, no matter where we find ourselves.” He also acknowledges the presence of the Shipbuilding employees. “I’d like to thank our guests here,” he says. “You know you all made this worship service possible, helping us get this great ship built, and thank you for the quality space that you’ve given us.” – **Jim Roberts**



### *“The Trial Center is where it all happens”*

We’re down three ladders from the hangar deck, on the third level of the ship, tucked away in the five small rooms that comprise the Trial Center. These rooms are crammed with computer screens and clipboards and telephones manned by shipbuilders, Navy technicians and observers and government reviewers – all checking maps and reviewing programs and phones ringing and data getting traded on the over 300 demos and system tests taking place round the clock during the four days of underway sea trials. To the casual observer, the trial center resembles a political campaign center or air traffic control tower or a TV studio behind the scenes during the evening news with all of the activity going on.



We’re talking with Topside Trial Coordinator **Paul Hecker** and Trial Coordinator **Matt Vincent** (who puts all of the plans together). Trial Director **Jim O’Brien**, who oversees all of the testing, standing nearby.

“Overall, from the test and Trial Center, we have run about 250 demos, 75 system tests conducted by Navy and industry, side by side,” Paul says. “We’ve got representatives from the ship’s company, NAVSEA 08, Industry coordinators and contractor support. ... There are three trial centers, between 50 and 75 people for each location – one for propulsion, one for topside equipment (stores elevator, steering, galley equipment, medical and dental equipment, sanitation (MSDS) – all equipment that isn’t propulsion or communications) – and one for electronics testing (radars, combat systems, and communications).”

Paul is coordinating the topside equipment testing – things that are essential to the life and work of the crew, like the galley equipment, the stores conveyors, weapons elevators, the anchor winches, the medical and dental spaces, the marine sanitation system, rigid hull inflatable boat deployment – so many systems. The topside equipment group had successfully completed 22 of 23 tests and 161 of 175 demos of equipment and systems planned for their area when we spoke with him on the third day of the trials.

The Trial Center was set up a couple of days before we got underway, with computers and data acquisition systems and communications channels set up ahead of time, so that when the tests and demos were ready to run, there would be real-time data collection and issues or challenges could be communicated immediately and test data could be closed out and certified on the spot. “The leadership running the trials goes from trial to trial, so their experience and ability to manage the demos and tests, and guide the ship’s company as they familiarize with the systems is a key performance parameter to a successful trial,” Paul says. “A few people in here haven’t slept much for the past few days, but all are focused on meeting any challenges and concluding the trials successfully.” – *Margaret Mitchell-Jones*

*A room full of important people*



The ship’s Trial Center, which once was a small space packed with about 30 to 35 engineers, admirals and Newport News senior management, is now a place where you can only find about 10 people. Those left have coffee in their hands and smiles on their faces as sea trials are a success and we’re about to return home the next day. While in the Trial Center, I stumble into **Rolf Bartschi**, chief nuclear engineer and vice president, Waterfront Nuclear Engineering and Test, who was a permanent fixture in the center throughout trials. “Builder’s Trials were a great success,” he says. “Testing was performed and proved all equipment and systems are up to par. This weekend was truly an example of the superior teamwork between shipbuilders, crew, SupShip and NAVSEA.” – *Lauren Green*

*“This is hard. It is just hard.”*



We are standing on a darkened bridge with the Officer of the Deck and various crewmembers who are all engaged, looking at displays and reviewing charts. We are talking with Bridge Watch **Mike Wallace** of the Test Engineering Dept. (E25), who is coordinating communication between the Trial Center and the bridge – serving as a liaison and making sure communication for test execution is coordinated with the crew and bridge. The busy Trial Center calls up to the bridge, Mike talks to the officer of the deck to get the ship in the right position and speed and ready to conduct the test.

Trial Director **Jim O’Brien** is in the Trial Center directing the test events, while Mike sets everything up for Jim with the ship’s leadership. “The most important thing is planning ahead when we have to adapt to change,” O’Brien says. “A good representation of how we have to adapt is how much the plan we came into the sea trial with has changed while we are underway. It is always the case where we have to re-sequence the trial, work with speeds, weather and other traffic in the area and so on – we constantly have to change things. If we see we have a delay, we try to get other things done to recover lost time with planned test – can be behind 12 to 18 hours at any time during a plan, but we were re-sequence things and finish on time.”

“Success requires teamwork,” O’Brien continues. “If we get underway late, or get behind, the team and their experience and their ability to adapt and recover schedule, make it possible to succeed. Experience and the ability to adapt – that is the key to a successful trial.”

It is a big team effort – between the ship, the trial team and the government. The shipbuilders are responsible for the trials and performance of the equipment, but the government oversees the trial and are the authority to validate and approve the tests and results.

“The same team that conducts carrier trials also conducts the submarine sea trials,” Mike says. “Jim runs both carrier and submarine trials – we borrow lessons learned across each platform, each trial. The thing that is most similar is the ability to shuffle things within the trials – to look ahead and be able to shuffle things and put the pieces all together that makes the most sense and still meet our schedule. Which we did.”

Jim sums up by saying, “The thing I’ve learned is to get the right team in place, get the technical experts to the right places so that they can execute the trial based on their experience and they bring with them the ability to adapt. I pretty much stay in the same place and collect the data from the experts running the test. Data acquisition displays also help, it’s a process improvement to collect data real time- to control everything from the trial center. Acquire the data from the computer and the program files the data into the test data analysis and processes the results – we take instrumentation and get it evaluated in real time to complete the testing.” – **Margaret Mitchell-Jones**

#### *The Late Night Show*



 [View Video](#)

It’s our last night at sea, and things are winding down; shipbuilders are preparing to depart the next morning, and the ship’s crew is becoming scarce. It’s about 9 p.m. as the team heads down to the main galley for karaoke. Shipbuilders and crew, from enlisted to officers, are gathered around, all laughing, clapping and cheering on one another. It’s a great time for all. Other entertainment offerings included Bingo and the popular video game Rock Band. But shipbuilder **Tex Massengale** of the Aircraft Carrier Engineering Machinery Dept. (E64) steals the show, as he performs a country/western song that had the audience laughing, singing along, clapping and asking for more. Once he was finished and several more participants had their turns, the crowd was yelling, “Put the shipbuilder up there again.” It was a perfect way to close out sea trials even though we still had another day ahead as we headed home. – **Lauren Green**

## Day Four- February 16, 2009

### *The “clean sweep” broom*

At about 8:15 a.m., I head up to the O8 level on the island with **Chris Oxley** and **Gaylon Montgomery** one last time – to watch the broom raised on the mast for the return to Norfolk. **Danny Fitzpatrick** is the first to arrive, three-headed broom in hand. Fitzpatrick, who works in the Waterfront Support Services Dept. (X36) and is “the keeper of the broom,” explains that it is the same broom that was used on *USS Truman* and *USS Reagan*. We have a few minutes until the VIPs arrive, so I ask Danny how the trials have gone for him. “Overall, this has been enjoyable,” he says. “It’s something that everybody should do at least once if they have the opportunity, but for most guys, it’s a one-time thing.” Moments later, the VIPs start to arrive to watch the broom raised. There’s **Matt Mulherin**, sector vice president and general manager, Newport News; **Ken Mahler**, vice president, Navy Programs; **Scott Stabler**, vice president, CVN 77 Program; **Rolf Bartschi**, chief nuclear engineer and vice president, Waterfront Nuclear Engineering and Test; **Jim O’Brien**, director, Test Engineering; **Capt. Ralph Soule**, Supervisor of Shipbuilding, Newport News; and, of course, **Capt. Kevin O’Flaherty**, commanding officer, CVN 77. After a quick photo, they shuffle inside from the cold so Fitzpatrick and **Ken King** can raise the broom. Ken, an Apprentice in the CVN 77 Carrier Construction Dept. (X05), was hand-picked for the task by **Dru Branche**. “I was proud,” he says. “It was an honor.” – **Jim Roberts**



### *Builders’ Sea Trials outbrief*



It is day four – mid-morning on the last day of the trial. The broom is flying. The team is assembled to evaluate the completed testing, to hear how it went. As about 60 people – shipbuilders, crewmembers and government evaluators -- are sitting in readyroom No. 9, Trial Director **Jim O’Brien** kicks off the meeting.

“Ladies and gentlemen, this is our last underway brief,” he says. “As Northrop Grumman Shipbuilding President **Mike Pettters** has said, we know that these ships will go into harm’s way, and it is our job to make sure that the sailor has what he needs to do that. We all need to do our best to make sure the U.S. Navy has the resources they need. That is what this trial is about.

“There have been over 300 tests and demos successfully completed -- with still 14 more are ongoing and will finish up just about the time we pull up to the pier today. We have achieved a very high completion rate on our test plan. This may be the highest percentage completion we have ever seen on a new construction trial,” he said.

“There is still a lot more work to be done, but everyone should be proud of this achievement and very proud of this ship and her crew,” he said.

“This is my first carrier trials,” said PMS 312 Test Director **Capt. Frank Simei**. “I watched very impressive teams working together these past several days. The test program was very ambitious,

and there were not a lot of surprises -- this is a good thing. I was very impressed with the crew, with the professionalism of Navy and industry.”

**Captain Kevin O’Flaherty**, commanding officer, has the last words: “For the Northrop Grumman shipbuilders, I am very glad we got to this point together. This is my last day at sea on this ship, and it gives me great pride to say these were great trials, this was a great experience.” - *Margaret Mitchell-Jones*

*A message from Scott Stabler*



[View Video](#)

At 9:30 a.m., **Scott Stabler**, vice president, CVN 77 Program, makes the following announcement on the ship’s PA: “Good morning. On behalf of Northrop Grumman Shipbuilding, I’d like to offer my congratulations to all who worked to plan and execute a very successful builder’s trials. As was the case during construction, the team came ready to play, worked long hours to overcome obstacles, and ultimately proved this ship completely seaworthy. On her return to Norfolk, we’ll be flying a broom from the mast, the shipyard’s traditional way of indicating a clean sweep of builder’s trials objectives. You should all be very proud of your accomplishments, a culmination of many years of team effort. I would also like to directly congratulate **Capt. Kevin O’Flaherty** and the crew of *George H. W. Bush*. We worked hard to build you a good ship. You brought it to life and proved it could be a great ship. We look forward to working with you to drive the program to delivery, shakedown and fleet introduction.” – *Jim Roberts*

*A chat with the purser*

If the Trial Center is the “nerve center” for all of the shipbuilders’ test activities, the Purser’s Office, six decks above, is the same thing for their berthing and meals and any other personal issues that arise while at sea. When there are no issues to resolve, the Purser’s Office becomes an impromptu social spot, where shipbuilders gather to grab a drink or a snack (potato chips and Soft Batch cookies) and pass along the latest “gouge.” **Shelton “Shane” Laws** served as the CVN 77 purser, leading a group of 26 shipbuilders – 13 people on-board and 13 people ashore – some of whom logged 30 hours the first day.



“Everything went wonderful,” he says as the office is packed up around us. “The purser’s staff did an excellent job. You couldn’t ask for a better crew. It was just a great trial by a great staff and a great team working with our staff.” When I ask what was his favorite part of the sea trials, he says, “For me, as a shipbuilder, I had never been able to sit down and watch the AFFF testing on flight deck. That was pretty incredible for me to see how all that came to life.” A couple of nights before, Shane had been entertaining a group assembled in the Purser’s Office with stories from his days as a pit crew member for NASCAR driver Ricky Rudd. I ask him if he had heard who won the Daytona 500 on Sunday, and he says a senior chief had gotten the word: Matt Kenseth. – *Jim Roberts*

## *“Quality and excellence”*



The crew “mans the rails” as the ship crosses the Hampton Roads Bridge-Tunnel. Although it is much colder and windier than the day we left – there are even snow flurries! – a few shipbuilders walk the flight deck and take in the sights as the ship returns to Norfolk and is tied up to Pier 14. I take the opportunity to talk to a few more employees about their experiences on the sea trials. Everyone has great comments, but the one that stands out to me the most comes from **David Wilkins**, a young designer who worked on the oil and water separators (OWS) systems. “The biggest thing I’ll remember about this trip,” he says, “is the commitment Northrop Grumman displays as far as quality and excellence. And the sailors – they were great. They showed us an unbelievable amount of hospitality. Just to see these guys out at sea and see what they do everyday – day in, day out – and how they protect our waters is amazing.” – **Jim Roberts**



## Credits "At Sea"



**Lauren Green** is a public relations representative in Newport News’ Communications Division (O29). She has been at the yard for three years, and this was her first sea trials. “I didn’t know what to expect on sea trials,” she says. “I knew it wasn’t going to be a Carnival cruise, but I learned a lot and gained a whole new respect for the Armed Forces. I really appreciate and thank every single one of the men and women who serve so I can rest my head easily at night. And to the shipbuilder who makes the Navy’s job easier by providing them amazing pieces of equipment who allow them to protect each and every one of us: Thank you.”



**Margaret Mitchell-Jones** is sector director of strategic communications, based in Washington DC.. Margaret has been with Northrop Grumman Shipbuilding for over six years, most recently as communications director in support of the US Coast Guard's Deepwater program. This is Margaret's first sea trial aboard a carrier and she has never walked up and down so many

ladders in her life!



**Gaylon Montgomery** is a video producer with 23 years behind the camera. For the last six years, he has produced training, marketing, and other communications videos for the shipyard. CVN 77 is his second sea trials ride aboard a carrier.



**Chris Oxley** is a photographer in Newport News' Communications Division (O29) with 26 years as a "shipbuilder."



**Jim Roberts** is the manager of employee communications in Newport News' Communications Division (O29). He has worked at Northrop Grumman Shipbuilding for four years. Although his father is a retired Naval aviator with more than 1,000 carrier landings, Jim never went on a Tiger or dependents' cruise; this was his first time at sea.

### **Credits "On Land"**



**Jessicah Hegeman** is sector webmaster for Northrop Grumman Shipbuilding. She has worked at NGSB for four years.



**Eugene Phillips** is the supervisor of creative services in Newport News' Communications Division (O29).



**Lamar Smith** is a graphic artist in the Newport News' Communications Division (O29).

## Credits "From the Sky"



**Walt Altice** is a visual media producer/director with over 20 years of experience.



**John Whalen** is a photographer in the Newport News' Communications Division (O29) with 27 years as a "shipbuilder."