FY2012 Secretary of Defense Phoenix Award

USS George H.W. Bush (CVN 77)

BASIC INFORMATION

SUMMARY OF ACTION

Mission Accomplishment
Effective Use of Maintenance Resources
Innovative Management Accomplishments
Personnel Quality of Life Programs
Summary

PROPOSED CITATION

The aircraft carrier USS George H.W. Bush (CVN 77) transits the Arabian Gulf. George H.W. Bush is deployed to the U.S. 5th Fleet area of responsibility on its first operational deployment conducting maritime security operations and support missions as part of Operations Enduring Freedom and New Dawn. Photo by MC2 Kasey Krall.

1: Damage Controlman 3rd Class Eddie R. Sandoval cleans an aqueous film forming foam station. Photo by MCSN K. Cecelia Engrums; 2: Aviation Boatswain's Mate (Handling) 3rd Class Ja'Juan F. Mangual performs maintenance on a life preserver. Photo by MCSN Jessica Echerri; 3: Seaman Tyler D. Nordland paints the deck on the fantail. Photo by MC2 Kasey Krall; 4: Electrician's Mate Fireman Julio C. Diaz replaces windshield wipers outside the pilot house. Photo by MC3 Billy Ho; 5: Engineman 3rd Class Adrian J. McGrue takes temperature readings on the emergency diesel generators. Photo by MC2 Jeffrey Richardson; 6: Aviation Support Equipment Technician 2nd Class David A. Murray performs maintenance on a tire rim. Photo by MC2 Kasey Krall.

7: Ensign Shawn P. Madsen inspects safety harnesses. Photo by MCSN Jessica Echerri; 8: Airman John R. Heer, left, issues paint to Aviation Structural Mechanic Airman Paul J. Duchowski. Photo by MCSN K. Cecelia Engrums; 9: Logistics Specialist Seaman Justin T. Carter, left, and Logistics Specialist Seaman Charles Jones conduct an audit in a storeroom. Photo by MCSN K. Cecelia Engrums.

On the Cover: Former presidents George H.W. Bush and George W. Bush deliver remarks to the crew. Photo by MC3 Joshua D. Sheppard.

Basic Information

USS GEORGE H.W. BUSH (CVN 77)

NOMINATION FOR FY2012 SECRETARY OF DEFENSE PHOENIX AWARD

1. Military Service: United States Navy

2. Specific unit designation of nominated unit: USS GEORGE H. W. BUSH (CVN 77)

3. Category/unit size of nominated unit: Large/2,841 personnel

4. Commander's name and mailing address:

CAPT Brian E. Luther
Commanding Officer
USS GEORGE H. W. BUSH (CVN 77)
FPO AE 09513-2803

5. Point of contact at nominated unit:

Primary Alternate		Secondary Alternate	
Name:	LCDR Brent J. Benlien	Name:	LTJG Aquichia L. Brown
E-mail:	ao@cvn77.navy.mil	E-mail:	shipsec@cvn77.navy.mil
Phone:	(757) 443-7731	Phone:	(757) 443-7718

6. Military Service point of contact:

Primary Alternate		Secondary Alternate	
Name:	CDR Timothy Parr	Name:	ATC Anderson Gibbons
E-mail:	timothy.p.parr@navy.mil	E-mail:	anderson.gibbons@navy.mil
Phone:	619-545-1419	Phone:	619-545-5654
Fax:	619-545-5463	Fax:	619-545-5463

7. Background information for nominated unit:
The USS GEORGE H. W. BUSH (CVN 77) was commissioned on January 10, 2009. It is the tenth and final NIMITZ Class aircraft carrier and was named after the Forty-First President of the United States.

Unit awards include:

Naval Air Forces Atlantic (CNAL) 2011 Battle "E"
Admiral Flatley Safety Award
Naval Air Forces (CNAF) "Jig Dog" Ramage Award
US Fleet Forces Battenburg Cup
US Fleet Forces Retention Excellence Award (4th consecutive award)

8. Unit size:

Officers:	161
Enlisted:	2,666
Civilian:	14

9. Unit location:
Norfolk, Virginia

10. Unit mission statement:
USS GEORGE H. W. BUSH (CVN 77) will be mission ready to conduct sustained Carrier Strike Group operations and all other operations as directed and required by our National Command Authority to support National goals around the globe.

Operation	***Location***	***Dates***
FIFTH Fleet Operations	Underway	1 Oct – 19 Nov 11
Operation ENDURING FREEDOM (OEF)	Underway	1 – 8 Oct 11
Exercise Nautical Artist	Underway	1 – 19 Oct 11
Straits of Hormuz Transit	Underway	9 Oct 11
Port Visit Jebel Ali, UAE	In Port	10 – 14 Oct 11
Operation NEW DAWN (OND)	Underway	15 Oct – 11 Nov 11
Straits of Hormuz Transit	Underway	12 Nov 11
Straits of Bab el Mandeb Transit	Underway	16 Nov 11
Suez Canal Transit	Underway	20 Nov 11
SIXTH Fleet Operations	Underway	20 Nov – 4 Dec 11
Port Visit Marseille, FR	In Port	25 Nov – 29 Nov 11
Straits of Gibraltar Transit	Underway	30 Nov 11
SECOND Fleet Operations	Underway	4 Dec – 10 Dec 11
Port Visit Mayport, FL	In Port	8 Dec 11
Tiger Cruise	Underway	8 Dec – 10 Dec 11
Initial Combat Deployment	Underway	10 Dec 11
Carrier Qualification (CQ) Fleet Replacement Squadron (FRS)	Underway	24 – 31 Jan 12
CQ Training Command (TRACOM)	Underway	6 – 12 Feb 12
Magnetic Treatment (DEPERMING) Evolution	In Port	27 Feb – 1 Mar 12
CQ (FRS)	Underway	12 – 19 Mar 12
Initial MV-22 Osprey Flight Deck Testing	Underway	20 Mar 12
Ammunition off load VERTREP with USS DWIGHT D EISENHOWER	Underway	21 Mar 12
CQ (TRACOM)	Underway	22 – 25 Mar 12
CQ (FRS)	Underway	21 – 24 Apr 12
CQ Carrier Air Wing THREE (CVW 3)	Underway	21 – 24 Apr 12
Ammunition off load VERTREP with USS DWIGHT D EISENHOWER	Underway	29 Apr 12
Ammunition off load VERTREP / Conrep with USNS LEWIS & CLARK	Underway	30 Apr 12
MV-22 / Puma Wind Envelope Expansion Testing	Underway	1 – 8 May 12
Underway in support of Reactor Training and Kennebunkport Visit	Underway	8 - 12 Jun 12
CQ(FRS)	Underway	18 – 21 Jun 12
CQ (TRACOM)	Underway	23 – 28 Jun 12
Operational Reactor Safeguard Evaluation (ORSE)	Underway	10 – 13 Jul 12
Docking Planned Incremental Availability (D-PIA)	In Port	25 Jul – 30 Sep 12

"It has been said by others that patriotism is not a frenzied burst of emotion, but rather the quiet and steady dedication of a lifetime."

George H. W. Bush

Aviation Electrician's Mate Airman Randy Harmon performs tests on a night vision scope. Photo by MC3 Billy Ho.

Summary of Action

USS GEORGE H.W. BUSH (CVN 77) began the year teamed up with Carrier Air Wing EIGHT (CVW-8), and Carrier Strike Group TWO (CSG-2) finishing a highly successful seven month deployment to the Persian Gulf in continued support of National Command Authority objectives. After a post deployment holiday period in Norfolk, Virginia, the crew of CVN 77 quickly turned around and delivered a superior war fighter training platform for Fleet Replacement Squadron (FRS) and Training Command (TRACOM) carrier qualification (CQ) operations. Shortly after, the motivated men and women of CVN 77 got the ship underway and provided a testing platform for the MV-22 Osprey and Puma helicopters, focused on expanding the operational envelope of both platforms. The ship's ability to deliver a dependable training platform was tested again during April and June for FRS and TRACOM CQ operations. In preparation for an early deployment, the Reactor Department successfully completed the Operational Reactor Safeguard Evaluation (ORSE). For the remainder of the year, the crew devoted its productive efforts and ingenuity to execution of vital ship's maintenance, rehabilitation and upgrade at Norfolk Naval Shipyard, Portsmouth, Virginia.

At the center of any good maintenance program is strong deckplate leadership coupled with robust damage control, Maintenance and Material Management, and weapons systems technical training programs. USS GEORGE H.W. BUSH took every opportunity to employ formal and on-the-job training to enhance the overall maintenance proficiency and cultivate an environment of continuous learning. This training mindset helped each member of GEORGE H.W. BUSH embrace the concept of efficient quality maintenance. That same training mind set permeated throughout the ship and was most notable in the crew's peak performance during operations.

Mission Accomplishments

USS GEORGE H. W. BUSH (CVN 77) successfully accomplished all unit and national requirements with remarkable results. The crew excelled in all phases of an aircraft carrier's operation cycle ranging from the final two months of a combat deployment supporting Operations NEW DAWN and ENDURING FREEDOM, to various training operations, and a rapid assimilation into a Planned Incremental Availability (PIA) maintenance phase. The success enjoyed throughout this year was driven by the genuine enthusiasm and zeal of each and every man and woman assigned to CVN 77. Specific highlights include:

Aircraft Intermediate Maintenance Department (AIMD)

AIMD provided intermediate and depot repair capability and diagnostic support for eight type model series aircraft. Specifically:

- 321 technicians completed 3,667 maintenance actions including 155 repair actions for 73 CVW-8 aircraft.
- As the Strike Force Intermediate Maintenance Activity (SFIMA), AIMD expeditiously completed 105 gage calibration actions for five separate ships in the Persian Gulf region.
- Redistributed 187 Support Equipment assets to other fleet activities after return to homeport.
- Maintained 8,662 Support Equipment end items valued at $91,700,000.00

Quality Assurance Division

The Quality Assurance (QA) Division ensured the four AIMD divisions were in strict compliance with the Naval Aviation Maintenance Program (NAMP) policies and procedures. They performed 54 work center audits, 64 program audits, and 146 Collateral Duty Inspection (CDI) monitors. Additionally, QA administered 976 SE licensing and 129 CDI qualification tests and provided the Central Technical Publication Library (CTPL) for all equipment supported.

General Aircraft Repair Division

The power plants, airframes and aviation life support systems (ALSS) division provided maintenance support for aircraft engines and relate systems, aircraft and ship's oil analysis, structural and composite component repair and fabrication, non-destructive inspection, aircraft launch bar testing, and ALSS maintenance. Specifically, it:

- Disassembled, repaired and tested two F404-GE-400 and two F414-GE-400 engines for CVW-8 combat operations.
- Successfully passed the 2012 Naval Sea Systems Command Radiological Support Program (RASP) inspection.
- Repaired 39 hydraulic and structural components.
- Trained and qualified 26 technicians in light industrial facility (LIFAC) operations. During the last two months of FY-12, LIFAC refurbished 278 shipboard items including: 36 Water Tight Doors, 25 Air Tight Doors, 12 Bomb Cradles, and four Ready Service Lockers, helping CVN 77 to maintain a compressed PIA completion schedule.

Avionics Division

The avionics division maintained and operated a wide array of integrated diagnostic testing platforms for eight type model series combat aircraft. Specifically, it:

- Completed 413 maintenance actions on avionic equipment and testing systems.
- Completed 3,607 calibration actions.
- Maintained a 97.10 % calibration readiness rate.
- Performed 212 2M maintenance actions.

Support Equipment Division

The support equipment division performed a wide variety of scheduled and unscheduled maintenance on 1,589 support equipment assets, and maintained an impressive 98.5 percent availability rate. Specifically, it:

- Completed 1,917 scheduled maintenance actions.
- Completed 1,213 repair actions.
- Administered 232 SE phase 1 classes.
- During PIA 12, stood up a comprehensive SE rework program that included total equipment disassembly, inspection, powder coat painting, and build-up of 56 rolling stock items.

AIMD 3M Division

The AIMD 3M division expeditiously performed 6,323 preventive maintenance actions on 3,751 pieces of shipboard and DC equipment, contributing to the ship's impressive 92.41% accomplishment rate.

Air Department

"Perfection is the goal, excellence will be tolerated"

Air Department achieved unprecedented levels of success through exceptional professionalism and resourcefulness. Specifically, it:

- Performed over 16,000 arrested landings and launches with "zero" safety mishaps.
- Corrective maintenance conducted on catapult systems:
- Four peen jobs.

Four water brake and piston overhauls	Two NGL overhauls
Four catapult launch valve re-packs	Two Jet Blast Deflector overhauls

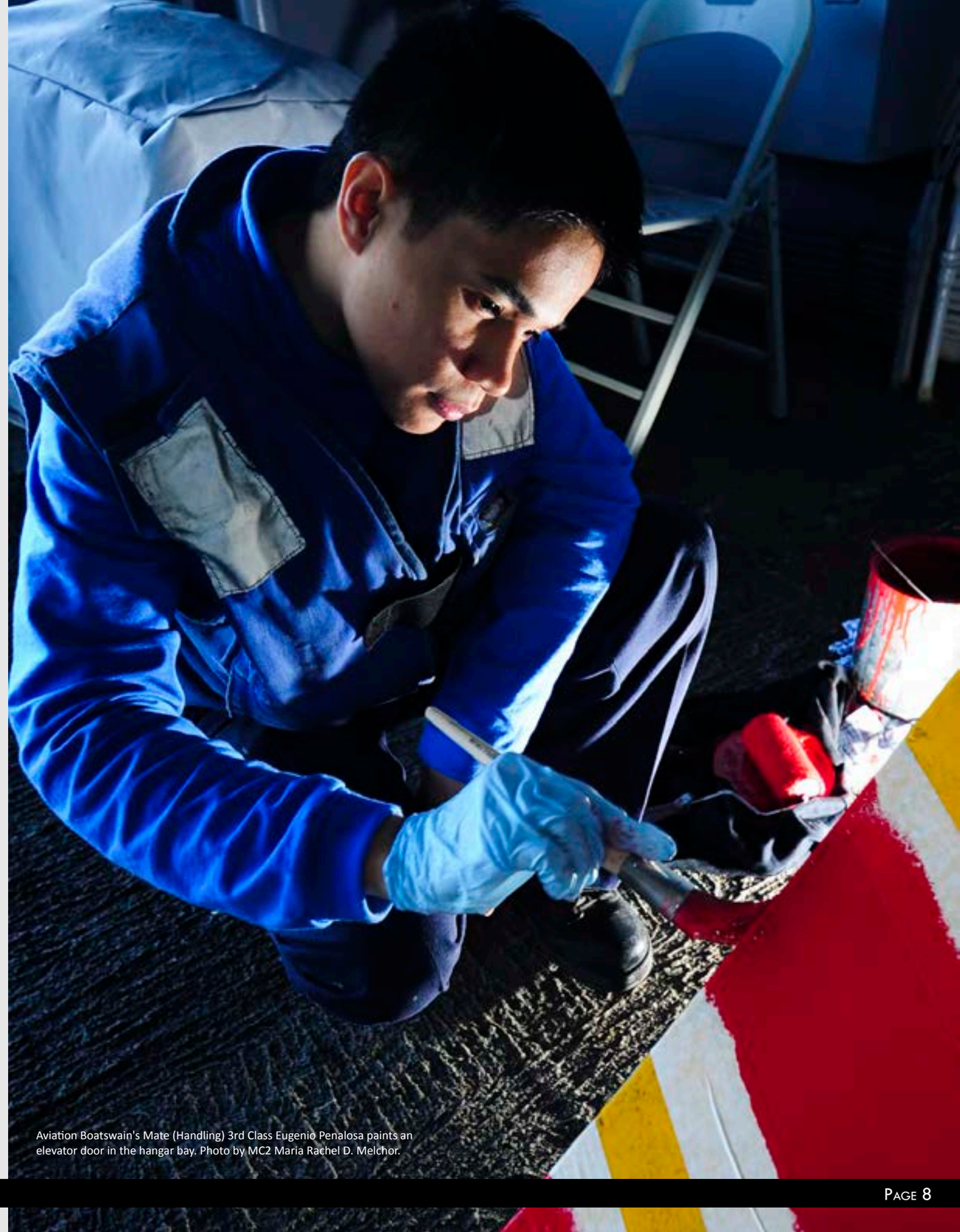
Corrective maintenance conducted on arresting gear systems:

Three floating piston re-packs	Two retractable sheave overhauls
Seven cable re-reeves	18 socket pours
One accumulator air flask replacement	

- Safely completed 10,501 aircraft moves in support of Carrier Air Wing EIGHT and Training and Fleet Replacement Squadrons
- Safely distributed over 7.3 million gallons of aviation fuel to 3,000 transient and embarked aircraft.
- Conducted over 200 flight deck, hangar bay and fuel system casualty drills, and maintaining M1 readiness.
- Qualified 98% of flight deck personnel in all watch stations, exceeding the CNAF goal of 90%. Graded 96% during its CNAF Air Readiness Inspection and was recognized as "the best Air Department in CNAL."

Engineering Department

The Engineering Department expended 192,000 man-hours on production and support during FY 2012 providing unsurpassed technical, material and repair support to 18 Departments, 239 Work Centers, two Air Wings, nine embarked Aircraft Squadrons and various Strike Group Commands. Also, 2012 marked CVN 77's maiden "Maintenance Deployment" in PIA-12/1. Extensive coordination and a creative level of innovation in a fiscally constrained environment required leadership to manage and use material and manpower resources efficiently and effectively.



Aviation Boatswain's Mate (Handling) 3rd Class Eugenio Penalosa paints an elevator door in the hangar bay. Photo by MC2 Maria Rachel D. Melchor.

Navigation Department

Navigation Department skillfully guided CVN 77 through 42,089 nautical miles during the year, supporting two major operations in FIFTH Fleet (NEW DAWN and ENDURING FREEDOM), two port calls in foreign countries (UAE and France), and several operations upon returning from deployment facilitating the training and qualification of replacement aviators. Specifically, it:

- Won the CNAL "White Wheel" for navigational excellence for the second consecutive year, continually demonstrating excellence in executing a demanding, high-tempo deployment.
- Flawlessly executed 24 Special Sea and Anchor details to four separate ports, six Connected Replenishments, and five Vertical Replenishments.
- Navigated through international straits seven times, including the Strait of Hormuz, Bab-al-Mandeb, the Suez Canal, the Strait of Gibraltar, and the Strait of Florida.
- Safely navigated the Gulf of Maine while hosting two former Presidents of the United States in an unprecedented and historic voyage to visit the ship's living namesake.

Command Religious Ministries Department (CRMD)

CRMD facilitated participation in religious practice and promoted personal and spiritual growth for over 5,000 Sailors. It also coordinated community relations projects to provide religious and humanitarian charity and interfaced with the American Red Cross to provide family emergency notification services. Specifically, CRMD:

- Processed 239 Red Cross messages and provided counseling to Sailors with family emergencies.
- Facilitated 150 religious services with an attendance of 2,131 from nine faith groups.

Administration Department

Administration Department worked tirelessly to support CVN 77's Individual Augmentees (IAs). It liaised with President George H.W. Bush's Office to provide each augmentee thank you and encouragement letters from the President. It also coordinated record maintenance and served as contact point between IAs and the ship. In total, CVN 77 supported the following IA requirements:

Iraq	5	Guantanamo Bay, Cuba	3
Afghanistan	6	Kuwait	2
Bahrain	4	Djibouti	3
Qatar	1		

Aviation Boatswain's Mate (Equipment) Airman Melissa S. Nero performs maintenance on a catapult. Photo by MC3 Billy Ho.

Combat Systems Department

Combat Systems Department supported Operations NEW DAWN and ENDURING FREEDOM with a variety of communications, command and control, computers, and intelligence (C5I) systems. Accomplishments included:

- Performed complex system installation of Joint Automated Deep Operations Coordination System (JADOCS) providing in-theater intelligence support during Operations NEW DAWN and ENDURING FREEDOM.
- Completed 2M repair on KIV-7 crypto cabling, supporting vital shipboard Super High Frequency (SHF) equipment. Avoided tech assist, CASREP and depot level repair cost enabling timely critical bandwidth utilization for Carrier Qualifications and Maintenance Training Team (MTT).
- Processed over 40,900 classified and unclassified Naval messages including timely processing of TOP SECRET requirements, PERSONAL FOR, SITREP, CASREP and AMCROSS messages.
- Established 13 Super High Frequency (SHF) activations and produced 96% up time which enabled over 3,000 hours of phone communications, e-mail and internet connectivity at a combined rate of 10mbs.
- Conducted 86,400 hours of technical support to 5,100 crew members, air wing, and embarked staff personnel onboard during USS GEORGE H. W. BUSH's maiden deployment, providing 99% communications uptime to support mission-critical operations.
- Expertly designed and implemented a network-wide configuration change by relocating user profiles to the Fiber-Attached Storage (FAS) server, enhancing the efficiency of network operations by reducing the need for local profile resets by 95%.
- Put together a completely robust 200-plus printer inventory in partnership with Xerox and the new HP support contract to provide product and technical support 24 hours a day, 7 days a week. The cooperation between Xerox and ship's force network technicians provided advanced-level troubleshooting and repair, saving numerous man-hours and thousands of dollars in potential replacement costs.
- Upgraded over 27 regular black-and-white printers to full-color, multiple-function printers for senior-level management and operationally-intensive areas, providing better quality output for mission-critical operations and executive-level briefings.
- During PIA-12 Availability Combat Systems Department refurbished six external platforms and 15 internal spaces saving the heavily tasked paint and tile teams 30 man-hours and approximately $13,000 in shipyard space restoration funds.

Supported INTEL, Operations, and AIRWING missions with concentration on SIPRNET/SCI communication, and Navigation/Safety of Flight support through:

- CV Sharp: CV-Sharp reports the training readiness for the surface force personnel which are paramount in preventing readiness degradation due to loss of key personnel.
- Successfully conducted a full system upgrade on CV-Sharp. Upon upgrade completion, CS32 administrators assisted with the command level training of CV-Sharp to each department representative, providing the necessary skills to ensure proper system database management.
- Performed a system snapshot of the CV-Sharp data which facilitated the successful transition to the new program installation in May '12. Each department was verified for personnel accuracy in the system, critical in maintaining an accurate training records and personnel/team management.

ADMACS/LSO

- The LSO platform encountered display failures which caused intermittent ADMACS data to LSO personnel. Extensive trouble shooting revealed a faulty fiber optic connection between the Data Display Control Processor (DDCP) and ADMACS. Ship's force technicians repaired the connections, conducted operational testing, and fully restored system operability, restoring mission critical safety of flight capabilities.

Operations Department

Operations Department worked closely with all Warfare Commanders and CVN 77's 18 departments to ensure individual CCSG 2 units and commands successfully completed its maiden combat deployment. Additionally, Operations department completed four carrier qualification detachments for Fleet Replacement Squadron (FRS) and Commander, Naval Air Training (CNATRA) units.

Specifically, Operations:

- During CVN 77's deployment (11May11-08Dec11), the CVW-8/CVN 77 team flew more sorties than the previous five CVNs, amassing 30,783 total flight hours, 11,925 total sorties, and 9,395 total traps with a 99.7% sortie completion rate and zero Class A or B mishaps. Over 40,000 pounds of ordnance was expended during combat operations to include 209 Troops in Contact (TIC) evolutions. The team met 96.4% of Ground Commander's Intent (GCI).
- Scheduled and planned 4,962 sorties and 8,531 traps, including 2,922 sorties and 2,446 traps in support of Operations ENDURING FREEDOM and NEW DAWN.
- Completed four Detect-to-Engage (DTE) exercises during Carrier Qualification (CQ) steaming for readiness and evaluation. Tracked and evaluated over 100,000 surface, subsurface and air contacts in the 5th and 6th Fleet Areas of Responsibility (AOR) without incident. Achieved a 3M readiness evaluation score of 100% for the Combat Direction Center (CDC).
- During the 2011 Deployment, the USS GEORGE H. W. BUSH Intelligence team exploited over 7,860 images, produced 5,884 imagery reports as well as disseminated over 300 intelligence briefs, 800 situational updates and 1,000 tactical reports in outstanding support of 5th and 6th Fleet Theater objectives. The timely, accurate and professional handling of the Indications and Warnings and Maritime Interdiction Operations missions to both theater and Composite Warfare Commanders was highlighted and recognized when CVN 77 received a five of five score on their Fifth Fleet intelligence report card. Seven Intelligence Officers qualified as Information Dominance Warfare Officers and 10 Intelligence Officers completed their Intelligence Officer PQS.
- USS GEORGE H. W. BUSH was CNAL's nominee for the Association of the Old Crow award from the 2011 Deployment where the USS GEORGE H. W. BUSH Electronic Warfare team submitted 569 Tactical ELINT (TACELINT) reports containing over 2,276 signals and three Threat Change Analysis Requests (TCARs) which enabled the rapid evaluation of potential threats. Additionally, the EW team supported over thirty CVN Night Move Operations through the application of tactical Military Deception (MILDEC) and restrictive Emissions Control (EMCON) in an effort to confuse or deny information to our adversaries. Throughout 2012, the GEORGE H. W. BUSH conducted over 200 EW training exercises, maintaining a rating of M-1 and finished a highly successful Training Assist Visit (TAV) in just three days
- Qualified 228 CNATRA Student Naval Aviators (SNA) and 214 FRS aviators.

Safety Department

Mission accomplishment begins and ends with safety on board USS GEORGE H. W. BUSH. Setting the tone and a quality atmosphere of safety on the ship, the Safety Department excelled in every possible area as a front-runner both on the ship and along the waterfront as demonstrated by:

- Zero Class A or B mishaps: Completed Maiden Deployment in December 2011 and following holiday stand-down, conducted three FRS and TRACOM CQ at-sea periods without a single Class A or B Mishap. GEORGE H. W. BUSH was at sea for 137 days of FY12 and remained operationally safe at all times throughout that period.
- ORM and Safety Training: Because we evaluate safety training statistics on a quarterly basis through an innovative program management process, we have elevated and sustained our standard of safety training into the middle and high 90% ranges. Not withstanding months of higher than average crew turnover rates, GEORGE H. W. BUSH is able to achieve high levels of trained personnel. All new Sailors receive ORM and Safety training immediately upon arrival through our indoctrination program and then through our management practices and continual monitoring we maintain those high standards of qualifications.
- Planned Incremental Availability (PIA): The ship transitioned from Operational Tasking to the shipyard industrial environment for PIA. Safety department worked alongside shipyard safety to ensure all hands were aware of hazards associated with the shipyard environment. Safety Department personnel conducted daily walk-through inspections with shipyard and contractor safety representatives in order to identify any hazards and communicate them to crewmembers. Ship's Force efficiency was directly affected as they set the standard for work completion on a weekly basis.

Media Department

Media Department provided exceptional support to maintenance, safety and quality of life programs. Specifically, Media:

- Published 28 editions of CVN 77's newspaper, which contained over 140 articles. High-lighted stories detailing the ship's Medical Training Team, the Damage Control Petty Officer training academy, water conservation, mass casualties, general quarters, and flight deck training drills, and the ship's performance.
- Produced 80 safety and maintenance-related video products vital in communicating command information to nearly 4,900 Sailors during the ship's first operational deployment, sustainment exercises and Planned Incremental Availability. The productions included Safety Stand downs, Captain's Calls, Command Information Briefs, and commercials on maintenance and safety-related topics totaling 586 hours of video captured and edited.
- Provided more than 4,500 man-hours of print production support. Produced nearly 24,500 documents, drawings, and schematics and over 1,000 Damage Control handbooks for the crew.

Deck Department

Deck Department expertly maintained eight underway replenishment stations, two 60,000lb anchors and ground tackle, a 25 ton Boat and Aircraft (B&A) crane, two VEST type davits, and two 7m Rigid Hull Inflatable Boats (RHIBs). It also administrated CVN 77's Surface Search and Rescue program (SAR). The Afloat Training Group (ATG) assessed Deck evolutions as follows:

Anchoring – 100%	MOB (night) – 87%
FAS (day) – 96%	FAS (night) – 83%
Emergency Breakaway – 100%	RAS (provisions) – 93%
RAS (ammunitions) – 93%	FAS (delivery) – 92%
MOB (day) – 84%	Moor to pier – 100%

Overall, Deck scored a superb 94%. It also accomplished:

- 31 underway replenishments.
- Transfer of over 20.4 million gallons of JP-5 and over 950 pallets of cargo and ammunition
- 25 man-overboard and small boat evolutions
- 5 precision anchorages and 15 mooring evolutions

Deck department scored 98.5% on the CNAL Safety inspection and 97.3% on the Ship's Maintenance and Material Management Inspection. The department received its second consecutive Black "E" and major contributor to CVN 77's Battle "E" and the USFF Battenberg Cup Award.

Training Department

Training built a supremely important core of technical skill and proficiency excellence which CVN 77 leveraged to produce superior operational results. Specifically:

- Taught Command Indoctrination to over 700 Sailors, Midshipmen and Reservists within 30 days of their reporting.
- CVN 77's training plan was the core of a successful first combat deployment. CVN 77 exceeded all Competitive Exercise requirements and earned the highly coveted 2011 CNAL Battle "Efficiency" Award. Additionally, CVN 77 was awarded the Battenburg Cup Award from US Fleet Forces Command.
- Prepared 2,585 No-Cost and Cost TAD orders and managed CVN 77's Defense Travel System (DTS) account to optimize use of a $473,000 training and Temporary Additional Duty (TAD) budget.
- Achieved an 84.18% completion rate for required Navy Enlisted Classification (NEC) schools and other courses. Exceeded the 80% CNAF minimum course completion rates.

Medical Department

Medical supported the CNAL mission during the pre-deployment work-up cycle, including an extensive Planned Incremental Availability period. Specifically, Medical:

- Conducted three Medical Evacuations (MEDEVACS) during various underway periods.
- Maintained a readiness rate above 75% despite medical software deficiencies and multiple personnel assigned to alternate work locations while in the shipyard environment.
- Provided 192 mental health outpatient visits.
- Provided care to 34 inpatients in the hospital ward.
- Performed 81 surgical procedures.
- Performed 20,430 patient visits including 2,445 physical exams and 1,356 preventive health assessments.
- Senior Medical Officer selected as the Navy-wide RADM Charles S Stephenson award winner for the Physician with the most significant contributions in the field of Preventive Medicine and Health Promotions

Dental Department

The Dental Department provides optimal dental care to 2,900 Sailors in USS GEORGE H. W. BUSH. Our mission is to provide courteous, efficient service and ensure all personnel maintain excellent oral health. The Dental Department treats over 30 patients on an average day, cared for countless more from its maiden combat deployment and during the Planned Intermediate Availability (PIA). Specifically, it:

- Sustained advanced cross training among the dental assistants as "prophy" qualified, leading to increased flexible hours of care.
- Dental Department provided superior care to CVN 77's Sailor's, completing over 8,979 routine patient visits, more than 32,523 major dental procedures, 762 surgical examinations and 3,750 minor surgical procedures; total department productivity in comparison to civilian equivalent care was $2.9M.
- Dental Department prided itself on sustained Operational Dental Readiness at 99% and 95% Dental Health Index during its Planned Intermediate Availability (PIA) period, which was again the highest metrics attained across 11 CVN's – maintained an unprecedented benchmark for both fleet and shore facilities.
- The Surface Medical Warfare qualification program saw seven Officers meet the requirements for Surface medical Department Officer (SWMDO).

USS GEORGE H. W. BUSH Dental Department is committed to mission success in maintaining the Dental Health of our crew. With recent Process Improvements, this department has demonstrated extraordinary successes in establishing new standards for not just Fleet Dental Facilities, but Navy Dentistry as a whole.

Reactor Department

Reactor Department continues to excel onboard USS GEORGE H.W. BUSH (CVN 77) in the flawless and safe execution of preventative and corrective maintenance, consistently keeping both reactors fully operational for unrestricted use. By maintaining strict procedural compliance and attention to detail at all times, Reactor Department continuously supported the ship's ability to execute its role during a vigorous post deployment training cycle and over the course of 2012, Reactor Department performed numerous maintenance items, held classroom training, and performed propulsion plant drills to ensure the ship was able to meet its many operational requirements. Specifically Reactor Department:

- Demonstrated its superior watch standing ability and level of knowledge during post combat deployment sustainment training and a Planned Incremental Availability.
- Performed 375 level of knowledge interviews, conducted 28,348 man-hours of training lectures, and issued and evaluated monthly exams to ensure that departmental personnel were knowledgeable on all aspects of safe reactor plant operation and complex propulsion plant operations at sea.
- Safely executed more than 691 individual propulsion plant drills to train and maintain proficiency of over 300 watch standers
- Successfully completed an Operational Reactor Safeguards Exam (ORSE) during a reduced training cycle.
- Performed exceptionally well on the ORSE, continuing to prove that they can safely operate and maintain the propulsion plant at maximum readiness, as well as maintain a high level of proficiency and knowledge.
- Reactor Department received extremely high scores on their material readiness, a major contributor to their successful completion of ORSE and a testament of the self-sufficiency of the maintainers in the department.

Supply Department

Supply Department ensured uninterrupted logistics readiness and quality of life services were provided throughout CVN 77's first combat deployment, extensive post-deployment carrier qualification underway schedule, and CNO funded Planned Incremental Availability period. Supply department's commitment to excellence was recognized at the highest levels when it was awarded its second consecutive Commander Naval Air Force Atlantic (CNAL) Logistics Excellence Award (Blue "E"), the Carl Scheufele award for Chief Petty Officer Mess Excellence, and the Dorie P. Miller award for Wardroom Excellence. Specifically, Supply Department:

- Processed 6,182 customer requisitions totaling $21.4 million.
- Processed $3.1 million in BP 28 stock reorders. Received and issued over seven million gallons of JP-5 totaling $27.5 million.
- Facilitated transfers of 103 CASREP high-priority requisitions and over 300 routine requisitions in support of deployed units worldwide
- Processed 274 Issue Priority Group I NMCS/PMCS requisitions in support of Carrier Air Wing EIGHT (CVW-8) flight operations
- Achieved 87.2% and 83.1% net and gross repairable effectiveness rates, exceeding the 85% and 75% CNAL target rates, directly contributing to CVW-8 sustaining a sortie completion rate consistently higher than the last five deployed CVNs.
- Safely transferred 1,933 pallets of cargo weighing over 1.6 million pounds valued at $16 million during six Replenishment-at-Sea evolutions.
- Hosted over 500 French and American dignitaries during a reception in Marseille, France, significantly strengthening international relations while fulfilling the Navy's mission of strength through diplomacy.
- Hosted Commander, Naval Air Forces Atlantic's commemoration of the 70th anniversary of the Battle of Midway, attended by more than 300 service members and civilians, including Fleet Forces Command and retired Admiral Joseph Prueher, a World War II (WWII) veteran and guest speaker.
- Hosted CVN 77's namesake, former President George H. W. Bush, former First Lady Barbara Bush, former President George W. Bush and extended family for a promotion ceremony while underway off the coast of Kennebunkport, ME.
- Provided first class logistic and food service in support of USS ABRAHAM LINCOLN (CVN 72) deployment homecoming and homeport shift.

Weapons Department

Weapons department has executed flawlessly throughout an arduous sustainment and maintenance cycle. Awarded second consecutive Black "W" award for weapons excellence and key contributor to CVN 77's CNAL Battle "E" Award. Weapons provided ordnance and small arms support that facilitated strafing runs and support missions for troops in contact with violent extremists during Operations NEW DAWN and ENDURING FREEDOM with "zero" defects noted during debriefs and battle damage assessments. It also supported anti-terrorism/force protection (AT/FP) measures in three foreign ports and throughout the FIFTH and SIXTH Fleet Area of Responsibility (AOR). Specifically, it:

- Planned and executed the safe VERTREP of air-to-air missiles which were critical to CVN 74 Battle Group operations.
- Crossdecked over 821 line items of conventional ordnance weighing 174 tons and valued over $58M to USS DWIGHT D EISENHOWER in support of its Middle East deployment.
- Safely conducted post cruise offload of 1,301 line items weighing 924 tons valued over $88.7M to USNS LEWIS and CLARK.
- Expended over four tons of conventional ordnance valued over $101,114.42 in Non Combat Expenditure Allowance (NCEA) assets.
- Trained 1,286 personnel in all aspects of shooting and handling 9mm pistols, M-16 rifles, 12 gauge shotguns, G911 Grenades, M240B and .50 cal machine guns. Provided critical small arms and crew-served weapons AT/FP support.
- Tracked repair activities for 937 CU Phases and performed 122 maintenance actions expending over 63,600 man hours during the 2012 Planned Incremental Availability (PIA-12).
- Conducted quarterly sprinkler tests/inspections in 39 magazines ensuring proper protection for 1,043,230 tons of ordnance; Rebuild and overhaul of 76 Magazine Sprinkler Valves; Removal, calibration and re-install of 169 MSV's.
- Completed 4,500 maintenance actions on 2,413 items of Armament Weapons Support Equipment (AWSE).
- Completed the removal and total refurbishment on nine Jettison and two CAD lockers.

Breakout, buildup and delivery for CVW-8 over 30 tons of ordnance valued over $2.6M in support of training exercises for detachments to Mt. Home Idaho, Alpena Michigan, and Tyndall Air Force Bases. Specific assets included:

11,200 rounds 20MM ammunition	8,000 rounds 7.62 & 50 caliber ammunition
4,694 rounds countermeasures and squibs	1,209 MK-76 Practice Bombs
104 Laser Guided Training Rounds	48 General Purpose Bombs and components
8 AIM-9X Sidewinders missiles	6 AIM-7 Sparrow missiles

- Maintained the Ship's Armory, 46 Ordnance Magazines, and nine Weapons Elevators in continuous operation and pristine material condition
- Maintained 2,307 Individual Material Readiness List (IMRL) SE items, totaling $10.6 million.
- Completed 2,668 PMS actions; installed Force Revisions 2-12 and 4-12; processed 157 Feed Back Reports (FBRs); corrected 250 Consolidated Ship's Maintenance Plan (CSMP) discrepancies; and closed out 100 trouble calls totaling 6,679 man hours.

Warfare Warriors

CVN 77 implemented a robust warfare training program that qualified:

126 Enlisted Aviation Warfare Specialists (EAWS) and 408 Enlisted Surface Warfare Specialists (ESWS). CVN 77 is the only CVN to fly both the EAWS and ESWS pennants, indicating 100% qualification of her eligible crew.

- 4 SWSCO (Supply Surface Warfare) Officers.
- 2 NASO (Aviation Supply) Officers.
- 10 SWMDO (Medical Surface Warfare) Officers.
- 4 SWO (Surface Warfare) Officers.
- 1 PAMO (Professional Aviation Maintenance) Officer.
- 10 IO (Information Dominance) Officers

These exceptional operational and maintenance accomplishments distinguish George H.W. Bush Strike Team as members of the premier aircraft carrier in the Fleet. The ship's ability to continually excel in every operational commitment, planned availability, and training requirement was due to the integration of shipboard departments and a culture of Continuous Process Improvement (CPI) and as a driver to achieve excellence.

Logistics Specialist Seaman Recruit Shane M. Power removes a banding crank from a pallet strap. Photo by MCSN Brian Read-Castillo.

Effective Use of Maintenance Resources

Through efficient and effective use of material and manpower resources, GEORGE H.W. BUSH accomplished a myriad of maintenance tasks resulting in potential cost avoidance and savings. Throughout the year, effective teaming with the multitude of off-ship maintenance providers enabled our team to meet an array of training opportunities and complete the Planned Incremental Availability in time for higher authority tasking.

Air Department

"Perfection is the goal, excellence will be tolerated"

Air Department pooled its contractor and ship's company resources to maximize maintenance completion during end-of-deployment cycle and preparations for a compressed Planned Incremental Availability. Specifically, it:

- Resurfaced over 75,000 square feet of flight and hangar deck non-skid.
- Accomplished 1,312 jobs during a four month compressed maintenance availability encompassing 44,511 man-hours.
- Completed 226 deck jobs and over 5,128 man hours as part of the ship's force PIA work package.
- Completed 30,273 maintenance actions, totaling 523,248 man-hours on aircraft launch and recovery equipment, fuels systems and damage control equipment.
- Expended over 4,000 man-hours alone maintaining CVN 77's unique aircraft launch and recovery systems such as Catapult Human Machine Interface and Advance Recovery Control arresting gear. Achieved a 98% equipment readiness rate.
- Completed over 986 maintenance actions on JP-5 fuel systems totaling 9,000 man-hours.

Combat Systems Department

Combat systems maintained a full suite of electronic systems to facilitate safe flight and sailing operations. Its aggressive management of scheduled and unscheduled maintenance ensured CVN 77 was ready for combat operations. Specifically, it:

- Successfully rebuilt and restored the ISNS Secondary Domain Controller (DC02) upon failure of the network COMPOSE services to start causing operational impact to web browsing, network timing and logon success. This enabled web browsing and LAN access to ship's force, greatly enhancing morale and productivity.
- Submitted and received approval for an allowance change request to support an increase of on board spare Lockheed Martin 4.0 KVA UPS and 96V battery packs to support a high rate of UPS failure with this model. This allows the ADP division to quickly recover from an UPS failure due to the availability of parts onboard and allows for restoration of services and critical applications to shipboard users.
- Repaired secondary SHF Defense Satellite Communications System (DSCS) access replacing two Fiber Optic Modules (FOM) and associated chaise to dedicated DSCS access. These repairs restored critical communications for secondary mission assignment supporting special operations tasking.
- The Interior Communications Division recalled and assessed 762 Hierarchical Yet Dynamically Reprogrammable Architecture (HYDRA) radios during PIA, resulting in the identification and subsequent repair of 137 radios. This effort saved the Navy over $36,000 in replacement costs. Additionally, the technicians inventoried and verified correct operation of 104 flight deck cranials in preparation for Sea Trials and Flight Deck Certification. Technicians discovered and corrected nine faulty cranials, saving the Navy an additional $18,000 in replacement costs.
- The Micro-miniature repair shop (2M) inducted, tested and repaired 192 circuit card assemblies saving $281,805.00 in replacement costs, and avoiding three mission critical CASREPS.
- Repaired 14 Human Machinery and Operator Interface panels restoring the ships ability to control and monitor ships Emergency throttle boards, fire pumps, list control, AFFF, VCMS, flooding, high temperature, and various other critical alarm and indicating systems.

Engineering Department

Auxiliaries Division

- Completed 1,563 trouble calls and committed 8,150 man hours to enhance the crew's quality of life and improvement of the ship's material condition.
- Cleaned the condensers of three 800 ton Air Conditioning units following the ship's first deployment. This resulted in $1,200,000 savings in contractor costs.
- Completed total overhauls of CVN 77's two unique O2N2 plants rebuilding both forward and aft gaseous nitrogen generator compressors for a total savings of $625,000. Provided direct support for Fleet Replacement Squadrons and the Training Command Wing, supplying thousands of gallons of liquid oxygen.

Repair Division

- Devoted 54,719 man hours correcting 7,683 trouble calls for sanitation, plumbing, locksmith and habitability work, enhancing the crew's quality of life and ship's material condition.
- Lead work center for the 238 non-tight doors that were replaced during CVN 77's time compressed PIA-12, exhausting 3,800 man-hours over the span of four months.
- Repair Division Pipe Shop expended 2,325 man-hours removing all urinals from the ship well ahead of the anticipated "Millennium MOD" that is expected to be in effect in the near future. This not only kept CVN 77 well ahead of a fleet wide task timeline, but also drastically reduced the number of trouble calls that culminate into troubleshooting and repairs by 42%. This reduction in downtime for the ship wide VCHT system greatly contributed to the crew's morale and quality of life.
- Made weld repairs to 245 water tight door striker plates, drastically improving the ship's Damage Control material readiness in addition to saving the Navy over $565,000 in consumable and contractor costs.
- Completed 2,525 ship-wide self help availability jobs through 18 departmental availabilities, exhausting 6,875 man-hours.
- The Ship's Maintenance Support Center (MSC) aggressively managed the ship's 3M Program with accomplishments to include:
- Served 4901 customers.
- Closed 531 problem worksheets.
- Cataloged 877 technical manuals. Incorporated 349 changes and revisions to technical manuals.
- Deleted 167 obsolete technical manuals and drawings.
- Distributed 5045 drawings and completed 28 red line drawings.
- Researched 527 Allowance Parts Lists (APL's).
- Verified 363 material open purchase requests.
- Installed 248,968 configuration updates to 46 Automated Shore Interfaces.
- Received 14 new integrated logistics and completed 21 certifications for shipboard configuration changes.
- Distributed 134 EOSS/AFOSS manuals and incorporating 2 revisions.
- Validated 3,525 OMMS-NG Equipment items along with CVN 77's Calibration Requirements List (CRL) of 7,315 gages and switches. Submitted 95 Calibration Maintenance Discrepancy Reports (MDRs).

Electrical Division

- Expeditiously responded to 1,183 electrical trouble calls expending 3,788 man-hours. Corrected 85% of the electrical trouble calls within 24 hours greatly enhancing the crew's ability to leverage the ship's resources.
- Executed 480 electrical work packages encompassing over 4,000 man-hours during PIA-12 availability.
- Assisted contractors installing a ventilation modification on over 400 ventilation motor controllers, new hot food wells in all five ship's galleys and installing 15 new dryers in ships laundry.
- Replaced motor bearings and shaft in MK 48 cooling pump motor saving the Navy over $10,000 in contractor costs.
- Overhauled number four fire pump motors saving the Navy $115,000 in contractor costs.
- Identified a major safety hazard in the ships 400HZ Aircraft electrical service station heads. The stations would not shut down after being disconnected which could cause electrical shock. Ship's force researched the correct heads and submitted an urgent feedback report. Ship's force replaced 48 station cable heads ensuring the proper operation of the stations.

Damage Control (DC) Division

- Completed 284 corrective maintenance actions totaling 1,352 man-hours including 250 man-hours returning five AFFF stations to full operation ensuring uninterrupted support of flight and propulsion plant operations throughout an extended combat deployment.
- Demonstrated exceptional troubleshooting and repair ability to correct a degraded chemical improved point detection system (IPDS) required for continuous operation in the 5th Fleet AOR in support of CBR early warning.
- Qualified 183 Damage Control Petty Officers with focused training for 46 watertight door maintainers. Ship wide DCPOs completed 2,827 preventative maintenance items with a validated score of 92.41% during recent maintenance and material management inspection (3MI)

GEORGE H. W. BUSH's Engineering Department honed their already stellar maintenance management standards during FY12 to their finest edge. Their unmatched proficiency in self-assessment, maintenance planning, and corrective maintenance execution has allowed for a quick and flawless transition into a fully capable Carrier Strike Group Leader.

Reactor Department

- Executed a demanding Planned Incremental Availability though diligent planning and preparation. Despite a shift in scope only months before the beginning of the availability, this PIA was executed in a shortened time frame in support of fleet requirements.
- Prepared and executed Phase II Cooldown for both plants, including repairing a packing leakage on A RPFW pump mid-cooldown.
- Four complex fill capacity tests to certify shipyard work.
- Through extensive planning, training and radiological controls, conducted prime standard alignments of critical reactor control instruments in nearly half the time of the fleet standard.
- Planned and executed over 100 valve overhauls, displaying exceptional quality controls and work planning.
- Maintained all equipment in superior condition making the most complex maintenance items seem routine.

Reactor Controls Division

- RC division performed reactor plant prime standard alignments, an evolution which involves a high degree of planning, training and radiological controls. After carefully planning for this evolution which normally takes five weeks, RC division worked around the clock to flawlessly complete this complex maintenance item in only three weeks with no rework, and no errors.
- RC division performed semi-annual control rod testing. A maintenance item which normally takes two weeks to complete, RC division worked in shift work and completed the evolution in only one week with no rework and no errors. This test is a very high profile maintenance item with significant regulatory agency scrutiny.

Reactor Electrical Division

- Repaired three Motor Operated Automatic Bus Transfers after catastrophic failure to restore full electrical distribution to vital propulsion plant and DC equipment.
- Replaced #1 Coolant Turbine Generator Circulating Water Pump upper and lower motor bearings, ensuring maximum ship's propulsion.
- Troubleshot and repaired Main Engine Guard Valve Trip Circuitry while supporting underway flight operations to correct faults severely limiting propulsion reliability.
- Repaired #3 Main Engine Throttle Control circuitry after failure while underway.
- Made vital repairs to #1 Ship's Service Turbine Generator over excitation and firing circuit and #2 Ship's Service Turbine Generator Governor Control circuitry while underway, ensuring ship's power was maintained at full capacity.
- Replaced #1 HPAC High Pressure Cutout Switch returning it to full service.
- Repaired, trouble shot, and replaced parts for the #1 Propulsion Auxiliaries Operating Board control circuit board.
- Replaced the Joint Operational Control Electrical Network (JOCELN) Universal Power Supply and battery extension module to maintain remote monitoring and control of the ship's electrical distribution system.
- Over 4,000 man-hours of spent troubleshooting and repairing #1 and #2 Oily Water Separator Electrical System.
- Repaired #1 Ship's Service Air Compressor Motor Controller and rebuilt all of #2 Ship's Service Air Compressor Electrical Systems.
- Troubleshot and Repaired a vital Fan Coil Unit in #1 Main Machinery Room allowing cooling to the ship's Gyro-Magnetic Compass allowing the ship to maintain full capability to safely navigate and conduct flight operations.
- Re-built turning gear motor for #3 Main Engine after total failure.
- Spent over 500 man-hours troubleshooting numerous grounds on Distilling Unit Auxiliary Equipment maintaining continuity of drinking water.
- Repaired numerous failures in the Programmable Logic Control Circuitry for #1-4 Mixed Oxidant Electrolytic Disinfectant Generators.
- Troubleshot and repaired a #1 Main Machinery Room Auxillairy Exhaust Augmenting Station Solenoid Control Circuitry.
- Completed over 3,500 distinct maintenance items.

Reactor Mechanical Division

- Successfully prepared and executed Phase II Cooldown for both plants, to include repairing a packing leakage on A RPFW pump mid-cooldown in two plant.
- Conducted 12 fill tests and four fill capacity tests, resulting in an accuracy update to the RPMs.
- Conducted over 15 corrective clean and inspects of the USS GEORGE H. W. BUSH's unique RPFW titanium plate heat exchanger.
- Aggressively broke into, flushed out, and cleaned clogged seawater piping and coolers for Coolant Turbine Generators over 20 times.
- Overhauled #2 Ship Service Air Compressor.
- Replaced both discharge storage filters in #2 Plant.
- Through meticulous preparation and excellent radiological controls, conducted two 6hr inspection and cleaning of charging system strainers.
- Successfully accomplished Reactor Compartment Bilge well level checks in both plants while maintaining scheduling flexibility around shipyard priorities and support.
- Rebuilt 3 Reactor Plant Seawater Pumps.
- Maintained 100% gage calibration for both plants.
- Upon return to home port from deployment, replaced Coolant Generator Circulating Water Pump bearings for #3 & 4 Coolant Generators in a multiday evolution.
- Frequently worked major maintenance items through the night when underway to fully support all flight operations and missions.

Reactor Propulsion Division

- Multiple rebuilds of all four High Pressure Air Compressors following failures, requiring significant coordination with Supply for repair parts and over 300 man hours.
- Rapidly replaced #1 SSTG Rupture disc to return full electrical power generation to support underway operations.
- Rebuilt #2 SSTG Attached lube oil shaft and bearings after abnormally worn bearings were discovered during operation.
- Rebuilt 4 Distilling Unit Brine Pump to restore full water production capacity.
- Aggressively returned Main Engine and Ship Service Turbine Generators to service on numerous occasions after their condensers had been fouled my marine growth. On numerous occasions, the reactor propulsion division worked through the night to ensure the ship was ready to meet tasking and execute underways on time.
- Completion of 85 valve overhauls during PIA.
- Troubleshot and repaired the Automated Coolant Analysis System after failures of vital components on five separate occasions. These repairs enabled rapid restoration of this unique system to support unrestricted reactor plant operations.
- RL division's 3M system has earned the distinction of one of the best on the ship as evidenced by no deficiencies noted on all outside inspections during CY-2012 and a Planned Maintenance System accomplishment rate of over 95%.

Reactor Auxiliaries Division

- Conducted repairs to numerous critical path controlling components including two air reducing manifolds, two freshwater pumps, and three fuel injectors. Consistent divisional success noted by fleet inspection teams.
- Successfully complete the most recent CNAL Diesel Engine Inspection in half the allotted time. Division worked around the clock completing inspections and conducting the following repair: changed out of two rocker arms, two injectors, repair two major fuel oil leaks, and five minor fuel leaks. The division also corrected six "Repair Before Operate", five major deficiencies, and ten minor deficiencies.

Reactor Quality Controls Division

- Tracked 3,981 Material Condition Assessment Program (MCAP) deficiencies for proper documentation repair and completion.
- Audited 7,528 Work Authorization Form (WAF) and Tag-Outs.
- Conducted 2,561 Current Shipboard Maintenance Project (CSMP) review for proper annotation and screening to higher authority.
- Successfully implemented Planning Board for Maintenance (PB4M) to de-conflict maintenance schedules among all 20 Reactor Department work centers, ensuring all maintenance were properly schedule and accomplished with no down time or delay and equipment were returned to 100% operational.
- Tracked and monitored discrepancies for 429 discrepancies in Total Ship Information Management System (TSIMS) for correction.
- Administered the MCAP exam for over 95 departmental personnel.

Reactor Department promotes a culture of process improvement, empowering all its Sailors to live by the watch standing principles of the Naval Nuclear Propulsion Program. This attributes to the continued day to day proper execution of maintenance, procedural compliance and safe propulsion plant operations.

Deck Department

Deck devoted 75,000 man-hours painting and preserving 400,000 square feet of CVN 77's hull, saving $400,000 in contractor cost. It also rehabilitated CVN 77's ceremonial foc'sle in time to host 100 ceremonies and command functions.

Navigation Department

Navigation was efficient in utilizing its maintenance resources. Specifically, it:

- Oversaw the early completion of all Navigation Ship's Force Work Package jobs during the ship's first-ever PIA, with zero jobs failing to start or failing to certify on time.
- Coordinated all PIA jobs that affected the habitability of the crew, minimizing the displacement of Sailors from their normal berthing and places of work. When unforeseen delays in work routinely presented themselves, Navigation's Habitability team ensured that the maintenance schedule was adjusted to keep the entire project forging ahead and allowed the ship to return to service on time.
- Re-painted all exterior and interior Navigation spaces, spanning nine levels of the ship and her entire length despite having less than 10 Sailors available to work at any given time.

Safety Department

The Safety Department is a proven leader aboard GEORGE H. W. BUSH when it comes to maintenance. The safe operation of all assets and personnel on board the ship is the key to making the resources we have remain effective for the long projected life or our ship.

- Respirators: Cited as one of the best programs on the waterfront; the department personally cares for respiratory health of all Sailors by educating, maintaining, and issue of our respirator for protection against respiratory hazards. Trained 906 Sailors and issued over 2,000 respirators in 2012.
- Ear Plugs: Safety Department worked aggressively with Supply Department during PIA to ensure adequate supplies of hearing protection were available to crewmembers. Hearing protection was placed at various places aboard ship to ensure it was available to all who required it.
- Liquid Foriegn Object Damage: The GEORGE H. W. BUSH/CVW-8 team kept the press on by maintaining a clean and visible flight for the last two months of deployment. An increase in awareness, more vigilant cleaning regimen, and investigative ways to reduce production of Liquid FOD was achieved.
- Audits: Although only an annual requirement, GEORGE H. W. BUSH's Safety Department conducts 17 out of 20 NAVOSH program audits on a quarterly basis. It is our belief that more frequent looks and adherence to the INSURV standards helps to better maintain our ship in showroom condition year-round.
- Safety Video Library: Maintained a Safety Training library where video and PowerPoint material can be found and used for future needs. Keeping archives of good Safety Training material allows embarked commands and other unit to borrow training material procured or produced on board GEORGE H. W. BUSH, and allows them to give training to their personnel when needed.

Innovative Management Accomplishments

AIMD

AIMD front loaded all LIFAC training for 26 Sailors two months ahead of USS GEORGE H. W. BUSH's first PIA, enabling water tight door, air tight door, and ready service locker refurbishments to commence immediately upon arrival at Norfolk Naval Shipyard. Additionally, when all ship work was completed, the LIFAC operation was employed to elevate a bottleneck on the SE rework sandblasting line, enabling the timely completion of eight additional rolling stock overhauls. This process is now the standard operating procedure (SOP) for future AIMD NNSY operations.

Air Department

"Perfection is the goal, excellence will be tolerated"

Air implemented several creative practices and tools to improve maintenance efficiency and effectiveness. Specifically, it:

- Assisted in the critical repairs of 74 JP-5 pipe leaks, enabling USS GEORGE H. W. BUSH to complete the Planned Incremental Availability as scheduled.
- Air Department was extensively involved and proactive in the advances of future CVN aircraft launch and recovery systems by providing tech assist to DOD Systems Design Engineers of Newport News Shipbuilding for the Advanced Recovery and Control arresting gear system, Human Machine Interface and the Electromagnetic Aircraft Launching System.

Safety Department

The Safety program aboard USS GEORGE H.W. BUSH is one of the most robust and innovative Safety Departments on the waterfront. Combining creativity and out-of-the box thinking and paired with a questioning attitude by all of its Sailors, has led to a lack of stagnation throughout this department. Safety consistently strives to make all our processes easier, more reliable, more manageable and sustainable as a top-quality product for our fellow Sailors.

NAVOSH Program annual calendar: To better understand the many disparate products the Safety Department is required to produce, we maintained an annual calendar as a warning, tracking, and recording device to maintain all of our required products throughout the year. Programs were assigned and led by individual Sailors within the department to increase ownership of each program and monitor its training.

- 8 O'clock Reports and TSIMS: It was realized early that placing safety discrepancies just on the 8 O'clock reports was not always effective. Safety places all safety discrepancies found aboard ship in the TSIMS database for quicker action taken, more intrusive oversight, and long-term trend analysis throughout the life of the ship.
- NAVOSH Program Binders, Grading System, and Digital Backup: All NAVOSH programs are kept by a Subject Matter Expert for that program. Records of audits, associated training, and comments by the Chain of Command (through the Captain of the ship) are archived for each individual program. Each NAVOSH audit is graded based upon their percentage of items in the green (fully in compliance), yellow (posing negligible health risk) or red (requires immediate action) status per the INSURV checklist and standards. All audits are also electronically scanned and backed up to our ship's network and local hard drive for archive purposes.

Combat Systems Department

Combat Systems also implemented several creative practices and tools to improve maintenance efficiency and effectiveness. Specifically:

- Established standard operating procedures (SOP) for network troubleshooting onboard to include over sixty hardcopy and user friendly SOP's, and over 200 hours of technician training. These initiatives increased overall efficiency and reduced expended man hours by over 45%.
- Established a more robust inventory and asset control system for computer assets. This consisted of the WASP Technologies Mobile Asset Standard package allowing for more accurate tracking of asset locations, dates of deployment, assets per department or division and for a streamlined system of issue, turn-ins, and disposal/disposition tracking.
- During an unprecedented four month PIA, Combat Systems Department coordinated the integration and assisted with the installation and alteration of 82 systems, five of which were major equipment installations and determined to be high risk from the start of the availability. Combat systems oversight was key to the successful completion of all production work and SOVT testing on time, meeting or exceeding all Combat systems major milestones.
- PM17 Cableway team was responsible for correcting 270 cableway discrepancies and the removal of over 10,000 feet of dead ended data and electrical cable throughout the ship.

Navigation Department

Navigation utilized several training opportunities to ensure the ship sustained a sufficient number qualified bridge watch standers and remained ready to get underway. Specifically, it:

- Held bi-monthly bridge watch officer training to improve integration between bridge watch standers and their counterparts in Operations, Deck, Air, Reactor and Engineering. Helped standardize bridge teams' core knowledge of steering the ship.
- Participated in two formal Naval Shiphandling and Seamanship Trainer courses (Basic Shiphandling and Bridge Resource Management) to elevate the bridge team's level of knowledge and improve standardization among all watch standers.
- Executed 36 hours of simulator time to maintain proficiency and continue training with fewer underway opportunities in the shipyard.

Medical Department

The Medical team effectively managed a large VGE outbreak affecting 10% of the crew, initiated a first-ever quarantine protocol in coordination with Supply and Engineer to resolve the outbreak. Subsequently, the Medical Department provided detailed first hand information to the Naval Warfare Development Command which was vital in the establishment of a Shipboard Quarantine and Isolation publication.

Personnel Quality of Life Programs
Administration Department

Admin Department orchestrated CVN 77's recognition program to reward Sailors' exceptional performance and leadership. CVN 77's maintenance, inspections and operational accomplishments were recognized by awarding:

- 12 Meritorious Service Medals
- 112 Navy and Marine Corps Commendation Medals
- 551 Navy and Marine Corps Achievement Medals
- 13 Flag Letters of Commendation
- 29 Commanding Officer's Letters of Commendation

USS GEORGE H.W. BUSH promoted 863 personnel:

E3-E4	432		E6-E7	40
E4-E5	276		E7-E8	14
E5-E6	98		E8-E9	3

Aircraft Intermediate Maintenance Department

AIMD provided comprehensive transportation as needed for 2,841 Sailors. Specific events include:

- USS GEORGE H.W. BUSH (CVN 77) relocation to Portsmouth.
- USS ABRAHAM LINCOLN (CVN 72), homeport change to NS Norfolk, VA.

Command Religious Ministries Department

Continuing in the spirit of President George H.W. Bush's 1989 Inauguration Address and in support of the Chief of Naval Operations' Sailing Directions, the leadership on board USS GEORGE H.W. BUSH (CVN 77) established a program to foster a culture of community service and a spirit of volunteerism amongst the crew. Overseas and homeport initiatives take place year round in hopes that each Sailor becomes a living example of our namesake's commitment to duty, sacrifice, commitment, and patriotism. Specifically, it:

- Overseas initiatives - During the ship's final months of the maiden deployment, 203 Sailors from the ship, embarked staffs and air wing spent 860 hours participating in 14 community relations (COMREL) projects in three foreign ports (Dubai, Bahrain, and France).
- Hampton Roads Initiatives - Since June 2012, over 650 CVN 77 officers and Sailors spent 2,800 hours participating in more than 45 community service projects throughout Hampton Roads

Supply Department

Supply Department played a key role in keeping Sailors' spirits up over CVN 77's first combat deployment, extensive post-deployment carrier qualification underway period, and CNO funded Planned Incremental Availability. Specifically, Supply Department:

- Achieved $2.1M in retail sales in CVN 77's ship stores
- Processed over 228,000 pounds of mail and conducted over 2,300 postal transactions
- Provided over 27,000 haircuts and processed over 180,000 pounds of laundry
- Hosted 12 monthly special birthday meals for over 550 Sailors.
- Maintained four gyms totaling 125 pieces of aerobic and weight equipment ensuring minimal equipment downtime which enhanced the ship and air wing's physical fitness program.
- Conducted the first ever Marine Corps Marathon underway. This treadmill-based marathon totaled 30 participants and was held at only one other forward deployed location.
- Conducted four BINGO shows and raised over $17K for CVN 77's MWR fund.
- Provided mass entertainment and recreation through activities such as Norfolk Tides Family Command Picnic, Spring Invitational Golf Tournament, movie nights in the hangar bay and flight deck; hangar bay basketball, volley ball and dodge ball, BINGO, game nights, video game challenges, 5K fun runs on the flight deck, talent shows, fitness challenges, kick box aerobics, cards and sports tournaments.
- Booked and coordinated over 351K in-port tours, reserved over 800 hotel rooms, booked over 200 golf tee times, and coordinated a golf tournament.
- Provided resale tickets at a discounted price for Kings Dominion, Busch Gardens, Water Country, Norfolk Tides, Norfolk Admirals, Regal Cinema, American Indoor Karting, Ocean Breeze Water Park and Motor World.
- Assumed management of the ship's Starbucks kiosk, Lonestar Café, providing gourmet coffee with a taste of home, generating $100K for CVN 77's MWR fund.

Legal Department

Legal provided assistance to over 2,600 Sailors, including drafting and notarizing over 500 powers of attorney, issuing four jury absentee letters, 165 court continuance letters and 17 Service Member's Civil Relief Act lease termination letters.

Combat Systems Department

Combat Systems worked diligently to ensure Sailors' needs were satisfied. Specifically, it:

- Refurbished CS1 and CS31 divisional berthing spaces with paint, decking, new mattresses and new pillows, providing a higher quality standard of living to CSD personnel.

Summary

During the past 12 months USS GEORGE H.W. BUSH met or exceeded all goals and expectations in a wide variety of challenging environments, and served as a model for other carriers. Each maintenance requirement and operational commitment was flawlessly executed by a well-trained and motivated crew. The departmental highlights detailed throughout this submission document the ship's successes across all evaluation factors.

FROM THE COMMANDING OFFICER

Each segment of a CVN's deployment cycle presents unique challenges ranging from heavy National Command Authority operations to necessary independent training operations, and the men and women of CVN 77 successfully met each significantly differing milestone with superb results. FY 2012 saw CVN 77 complete its first deployment cycle, take on the roll of FRS/TRACOM CQ platform, provide a testing platform for the MV-22 and Puma helicopters, move into its first PIA period, and make training preparations for an early deployment.

Most notably, the ship's crew met the PIA 12 requirement head on, and only through hard work, ingenuity, and unrelenting perseverance was top leadership able to consider CVN 77 as a viable warfighting option for an early deployment to protect vital U.S interests around the globe. This superlative performance has left CVN 77 better prepared to begin a new FRTP with CVW-8 and CSG-2 and meet whatever National Command Authority tasking is put forth. It is with pride and pleasure that I thank and congratulate the thousands of Sailors who kept CVN 77 in remarkable material condition throughout FY 2012. Without question this is the finest CVN in the Fleet, and is truly deserving of the recognition afforded by the Secretary of Defense "Phoenix" Maintenance Award.

- CAPT Brian "Lex" Luther
Commanding Officer

PROPOSED CITATION

Machinist's Mate 1st Class Stephen E. Marler welds a piece of metal. Photo by MC3 Leonard H. Adams.

The Secretary of defense takes great pleasure in presenting

The 2012 Department of Defense Phoenix Award for Maintenance Excellence to

USS GEORGE H.W. BUSH (CVN 77)

For service set forth in the following

CITATION:

For meritorious achievement in the administration of consistently superior maintenance programs from 1 October 2011 to 30 September 2012. Through diligent use of constrained resources, firm conformance to published maintenance procedures and best practices, the Officers, Chiefs and Sailors of USS GEORGE H.W. BUSH established their ship as the finest aircraft carrier in the entire fleet. CVN 77's achievements over the past twelve months reflect a commitment from all hands to perform the highest quality maintenance with a focus on safety, while enhancing combat capability throughout CVN 77's expected 50 year service life. During the year, CVN 77's crew consistently displayed resilience to a wide variety of challenges through effective use of maintenance resources, innovative management accomplishments, and devotion to personnel quality of life programs. CVN 77 successfully completed its first combat deployment, performed admirably as the FRS/TRACOM training platform, and rolled into its first Planned Incremental Availability. From the deckplates to the Bridge, CVN 77 reflects the tremendous pride and professionalism in carrying out its mission. This mighty warship served its nation by demonstrating to the world that the U.S. Navy is a "Global Force for Good." The professionalism, unparalleled dedication to excellence and proven success of the men and women of USS GEORGE H.W. BUSH reflected great credit upon themselves and upheld the highest traditions of the United States Department of Defense.

SECRETARY OF DEFENSE

Aviation Electronics Technician 2nd Class Angel Rodriguez Martinez solders a resistor. Photo by MC3 Kevin J. Steinberg.

WE ARE:

FREEDOM AT WORK