This past year has been incredible and the accomplishments of the NAVSEA team never cease to amaze me. Key to the team’s success has been our ability to address difficult issues with class and cooperation.

This year we took on a manageable number of important initiatives of significant importance to the Navy, in support of the current fleet, future fleet and people goals. Additionally, NAVSEA worked on issues in support of the War on Terrorism, humanitarian assistance and issues of international focus. Our ability to get things done has increased NAVSEA’s credibility with the Navy such that we are counted on to lead the resolution of many difficult problems facing the Navy.

Let me discuss some of our key accomplishments.

**War on Terrorism.** This is our #1 job in support of our Nation. We provided over 20,000 JCREW jamming devices to stop deadly roadside bombs and protect the warfighter in Iraq and Afghanistan. We also delivered the first of fifteen Patrol Boats to the Iraqi Navy, to assist them in rebuilding their Navy and will be building a Ship Repair Facility there next year. Our EODTECHDIV folks are involved in the analysis of EOD forensics and have assisted the Iraqi courts with this evidence. And our Individual Augmentees, both military and civilian, continue to provide INCREDIBLE support.

**International scene/Humanitarian assistance.** The NAVSEA team provided critical support for several natural and manmade disasters over the past year, including the Haiti and Chile earthquakes with port clearing aid and for booming/skimming and engineering support for the Deepwater Horizon disaster. On the international scene, SEA 05 lead a team of Warfare Center professionals to provide technical analysis and reverse engineering support to the South Korean Navy to determine the facts and events surrounding the of the sinking of South Korean ship, ROKS CHEONAN . What fantastic work - and on a world stage at that!!

In support of our Strategic Business Plan goals, we made the following progress:

**Sustain the Current Fleet.** We had two key goals here, Improve Surface Ship Material Condition and Naval Shipyard Back to Basics. Improving surface ship material condition was our #1 goal this year - to get surface ship maintenance RIGHT. Through efficiencies in the Warfare Centers, we funded and stood up the Surface Ship Life Cycle Management Activity and built technical foundation papers. This will allow us to apply the same rigor to surface ship maintenance that we currently have in submarines and aircraft carriers. This is MONUMENTAL as this rigor will translate to proper program funding for surface ship maintenance to ensure our fleet achieves its full service life. Additionally, we reached four star agreement in the way ahead for assessing and sustaining surface ships through their life and we reached agreement with Navy leadership to increase both civilian and military manning at the Regional Maintenance Center to accomplish this critical task. In Shipyard Back to Basics, we improved short- term availabilities in the Naval shipyards, delivering seven of eight on time and delivering our first Trident refueling availability on time.
Build and Affordable Future Fleet. Our two goals in this area are SUPSHIP Back to Basics and Unmanned Maritime Vehicles (UMVs). We increased manning at the SUPSHIPs and are looking to drive our performance to the next level this year, particularly in terms of quality oversight. We are part of the OPNAV team looking for solutions for UMVs and also conducted successful UMV tests this year. Next year we will continue to look at expanding capability by researching energy power sources to allow UMVs to operate longer to keep Sailors and Marines out of harm’s way.

Enable our People. Our three goals in this area are Talent Management, Diversity and Wounded Warriors hiring. This year we had a coordinated hiring playbook that was very effective. We brought on several mid-career professionals through our Detroit hiring events. These team members are already making a critical difference at NAVSEA. Additionally, we signed an agreement with the University of Michigan and a consortium of other universities and professional societies that will allow us to build a pipeline of Naval architects to replenish our workforce. In diversity, we are looking for a fundamental shift in our behavior in how we fill leadership positions and how we manage our talent to ensure that we have a diverse team that truly reflects the capabilities of the country we serve. NAVSEA set out this year to lead the nation in hiring Wounded Warriors. We succeeded in providing CAREERS to 282 veterans!! They bring a unique dynamic to our team and understand first-hand the requirements and stress of combat. Next year’s goal is 365, one for every day of the year.

NAVSEA Commitments to Navy Priorities. We have several over-arching goals that showcase our commitment to Navy priorities. ERP was successfully implemented at NAVSEA headquarters and general fund activities. We made total ownership (TOC) cost a priority and had eight of 13 initiatives officially endorsed and funded in FY12 which will result in savings of over $500 million over the five year defense plan (FYDP). This is in addition to the hundreds of other TOC reduction initiatives being worked by the NAVSEA team. We recognized the ingenuity of NAVSEA employees in our bi-yearly TOC awards, with 12 awards that will save over $700 million over the FYDP. We are actively supporting SECNAV energy goals with “quick wins” such as solid state lighting and paint coatings. The NAVSEA team also moved forward successfully testing bio-fuels in RHIB and riverine craft this year. These initiatives, along with our work in hybrid electric drive, will substantially reduce the Navy’s dependence on oil.

I am confident that we are working on the right things for the Fleet. I look around every day and see GREAT things happening in the command. This does not mean we can rest on our laurels though. In FY11, we will need to work on institutionalizing the progress we have made. NAVSEA has the best jobs in the Navy, and I am extremely proud to serve as your commander. Thank you for demonstrating that we can meet the most challenging needs of our Fleet. As always, be safe and KEEP CHARGING.
Recognizing a lack of technical rigor and long-term maintenance planning in the surface fleet, NAVSEA has committed to a renewed focus on surface ship readiness – a cornerstone of the 2009 NAVSEA Agenda for Change.

Partnering with the surface fleet, NAVSEA began a series of initiatives to increase fleet support and improve maintenance practices across ship classes, while also modernizing them to keep pace with mission requirements. These initiatives are designed to ensure all surface ships are fully mission-ready and able to achieve their expected service life.

“Maintaining our existing surface fleet is critical to executing the maritime strategy,” said Rear Adm. Jim McManamon, NAVSEA deputy commander for Surface Warfare (SEA 21). “The acquisition of new ships is only part of what it will take to reach Navy objectives. The Navy must continue to maintain, efficiently manage, and modernize the existing surface force.”

McManamon’s office began undertaking several readiness initiatives in the last year, providing dedicated experts to assist surface ship crews with corrosion control, distributing specially designed covers to protect deck equipment from rust, and conducting comprehensive baseline studies of surface ship material condition in conjunction with the American Bureau of Shipping.

However, most critical to meeting NAVSEA’s long-term readiness goals was the completion of a near-total realignment of the command’s surface ship readiness organization.

“This reorganization will better enable us to maintain surface ships throughout their service lives by integrating the fleet’s existing readiness strategies directly with the organization charged with equipping today’s surface ships with tomorrow’s technology.”

As part of that reorganization, McManamon stood-up a SEA 21 Readiness Division to specifically addresses both near-term material readiness challenges and manage long-term lifecycle management efforts. Additionally, the Surface Ship Lifecycle Management Activity (SSLCM), created as a field activity in 2009, was established as a full shore command — the Surface Maintenance Engineering and Planning Program — with a comprehensive mission to provide centralized surface ship life cycle management for the fleet. Just two years after being established as a four-person field activity, SURFMEPP has expanded, with detachments in all major fleet concentration areas.

NAVSEA’s goals for 2011 will continue to build on this alignment and focus on executing our commitments.

“We have to maintain momentum we’ve developed,” said McManamon. “We’ll be fully institutionalizing the changes we made last year, and begin executing the processes we developed.”

### FY11 Goals

- **Improve Surface Ship Material Condition by executing five Surface Ship Readiness Initiatives:**
  - Total Ships Readiness Assessments will provide a framework and schedule to execute comprehensive ship lifecycle inspections.
  - Develop a dedicated Integrated Sustainment Program — throughout the surface fleet to provide reliable distance support.
  - NAVSEA established the new Surface Maintenance Engineering and Planning Program at the beginning of FY11 to fully manage the maintenance requirements for ships in the surface fleet in order to better plan and budget for long-term fleet readiness.
  - Reconstituting the Intermediate Maintenance Activity — staff Regional Maintenance Centers with the appropriate skill-sets to execute non-nuclear surface ship maintenance efforts and train future sailors to be journeyman engineers.

- **Further improve Availability Execution and Work Certification,** driving technical rigor and discipline in the execution of surface ship maintenance availabilities.

- **Complete the development of the Surface Ship Maintenance and Modernization End-to-End Process Map,** creating a surface ship material readiness standard with appropriate technical rigor.
NAVSEA’s four Naval Shipyards — based in Kittery, Maine; Portsmouth, Va.; Bremerton, Wash.; and Pearl Harbor, Hawaii — are key to maintaining the readiness of the Atlantic and Pacific fleets, responsible for all submarine, aircraft carrier, and even some surface ship availabilities.

“The shipyards are critical readiness providers for the fleet,” said Rear Adm. Joseph Campbell, NAVSEA deputy commander for Logistics, Maintenance and Industrial Operations. “We’ve got to make sure the yards are doing their work as efficiently as possible, because the fleet depends on Naval Shipyard performance. Anything we can do to improve shipyard performance has a direct effect on fleet readiness.”

Throughout fiscal year 2010, Campbell has worked with his four shipyard commanders to continue reducing the time required to complete ship availabilities, increasing the percentage of on-schedule availability completions from 22 percent to 43 percent.

“In 2010, we continued our strong trend in aircraft carrier maintenance, and we’ve completed 7 of 8 shorter submarine availabilities — as well as the first Trident submarine availability — on time” said Campbell. “Our challenge now is taking on the longer submarine availabilities and improving the performance on those.”

Critical to further reducing the time required to complete shipyard periods is the Electronic Technical Work Documents (eTWD) — which will be begin to be implemented across all of the shipyards in 2011.

“This is one of our biggest Total Ownership Cost initiatives,” said Campbell. “Today, we manage everything on paper, but eTWDs will allow us to move everything to an electronic system. We believe this system will result in an almost 10 percent reduction in our total workload, and by 2016, we could see more than $60 million in savings.”

FY11 Goals

- Focus on completing all availabilities within cost and schedule:
  - Reduce SSN 688 class engineered overhauls to 18 months.
  - Reduce SSGN 726 class extended refueling overhauls to 24 months.
  - Efficiently execute all carrier availabilities.

- Improve worker and supervisor efficiency using project management fundamentals with emphasis on scheduling and execution.

- Increase productivity by implementing Electronic Technical Work Documents.
In the fall of 2009, NAVSEA's four Supervisors of Shipbuilding, Conversion and Repair (SUPSHIP), along with SEA 04 and the affiliated program executive offices, embarked on a “back to basics” initiative designed to correct cost, schedule and quality issues discovered in the shipbuilding process.

Following a detailed self-assessment conducted throughout 2010, SUPSHIP and the PEOs agreed to focus on the four areas — quality assurance, project oversight, contracting and engineering — identified as SUPSHIP’s core functions. “The four supervisors directly oversee all Navy shipbuilding,” said Rear Adm. Joseph Campbell, NAVSEA deputy commander for Logistics, Maintenance and Industrial Operations (SEA 04). “So in 2010, we sent teams out to review how each of our SUPSHIPs are doing with their oversight of the shipbuilders.”

Following the assessment, SEA 04 and the supervisors created working level teams to focus on improving each of those core focus areas, starting with the one Campbell sees as the most important. “We got a good start on improving quality in 2010,” said Campbell. We’re already seeing improved attention to quality by the private shipbuilders.”

Campbell and the four supervisors will continue that push in 2011, completing the reviews of the remaining three focus areas, and instituting new Service Level Agreements which will codify exactly what is expected of the SUPSHIPs in each of those areas.

“By the end of fiscal year 2011, I plan to have all of those agreements signed by the PEOs and myself,” said Campbell. “And we’re going to deliver what we said we’re going to.”

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**FY11 Goals**

- Improve the four SUPSHIP core functions — quality assurance, project oversight, contracts and engineering
- Complete and institute the four Service Level Agreements between SUPSHIP and the program executive offices.
Though still in its relative infancy, Navy leadership has taken a strong stance on the importance of unmanned vehicles — the secretary of the Navy has made it one of his top three priorities, and the chief of naval operations intends to demonstrate an unmanned undersea vessel fleet by the end of the next decade.

Although challenges remain, unmanned vehicles and sensors represent the Navy’s future, both as a way of augmenting force structure and removing Sailors from high-threat environments.

“We’re facing increasing challenges throughout the world in all the different domains, and the force structure to deal with those is going to be limited,” said Rear Adm. Tom Wears, commander of the Naval Undersea Warfare Center. “Unmanned systems provide the potential to build that force structure, though there are technical challenges we need to overcome.”

In support of the Program Executive Office for Littoral and Mine Warfare, Wears has spent 2010 working through two key challenges to meeting the Navy’s unmanned goals.

“For unmanned undersea vessels specifically, autonomy and energy are our biggest technical challenges,” said Wears. “We have some that can operate for short periods of time, but when you start talking about operating them in the Pacific theater for example, the vessels have to be able to get their destination, persist in that environment, and be maneuverable, which requires advanced power systems and autonomy.”

In October 2010, NUWC demonstrated a 20-hour, 70 nautical mile unmanned undersea vehicle transit from the Woods Hole Oceanographic Institute in Massachusetts, to Newport, R.I., where the UUV autonomously travelled around islands, through various undersea terrain, and without surfacing.

“This demonstration was a significant milestone,” said Wears. “But our real objective is developing and demonstrating that level of autonomy for 30 or 60 days, over thousands of miles, which I think highlights the technical challenges we have moving forward.”

**FY11 Goals**

- **Acquisition/Requirements Development:**
  - Develop an acquisition roadmap for Large Diameter Unmanned Undersea Vehicles
  - Coordinate with ONR to ensure smooth transition to program of record
  - Work with N2/N6 to mature the concept of operations development requirements.
  - Work toward at-sea demos in FY 13-15

- **Technical Authority**
  - Establish technical authority structure and certification criteria for power and energy sources

- **Update Warfare Cener infrastructure**

- **Complete Universal Launch and Recovery Module Development and Demonstration**

- **Coordinate LCS Mission Module Specifications**
As the Navy’s largest system command, NAVSEA is committed to recruiting and retaining the nation’s best and brightest.

To achieve this goal, NAVSEA began developing an integrated Talent Management Strategy in 2009 designed to align workforce-related activities and to amplify their effects in overcoming barriers to build and sustain the 21st century naval engineering and acquisition workforce. The Talent Management Strategy provides a framework to allow NAVSEA to more effectively implement policies and practices across the organization.

“We’ve long believed that people are our most valuable resource and we’ve committed to attracting and sustaining a diverse, highly qualified workforce,” said Don McCormack, executive director, Naval Undersea Warfare Center and NAVSEA’s champion for talent management initiatives.

Over the next five years in the Warfare Centers alone, more than 30 percent of NAVSEA’s science and engineering workforce — representing 170,000 years of service — are or will become eligible for retirement. To address this challenge, NAVSEA will use the Talent Management Strategy to apply an arsenal of activities to plant, nurture, and sustain our current workforce, attract the next workforce.

“Our outreach efforts have to prevail over low numbers of students choosing science and engineering majors and declining numbers of students graduating with those degrees,” said McCormack. “In the area of hiring and on-boarding, we’re looking for ways to improve cumbersome or varied application processes, and inefficiencies in the on-boarding process. To increase retention of our personnel, we’re working to engage the current NAVSEA workforce and build a group of diverse highly qualified candidates for every job that is advertised.

Although the Talent Management Strategy is still being completed, NAVSEA has already had great success developing programs to encourage high school and college students to pursue careers with the command, hosting robotics competitions at Warfare Centers around the country, establishing K-12 outreach programs, and signing Cooperative Research and Development Agreements with a number of colleges and universities.

“It’s been incredibly gratifying to see so many great folks, at all levels, so committed to developing and furthering our recruiting efforts,” said McCormack. “Our challenge for next year will be to maintain that level of effort as those new employees come on board. We owe all of our employees — new and existing — all of the resources needed to succeed. The Talent Management Strategy is going to institutionalize those efforts.”

FY11 Goals

- NAVSEA will attract and retain a talented, diverse workforce through professional development, job enrichment and work-life balance.
NAVSEA employs more than 60,000 employees across the country and around the world. Like the rest of the federal government, NAVSEA will benefit by fostering a workplace that utilizes all workers’ talents, without regard to race, color, religion, national origin, gender or disability and that allows all employees to achieve their fullest potential.

Throughout 2010, NAVSEA conducted a detailed review of how the command is complying with Management Directive 715, the executive directive that provides policy guidance and standards for establishing and maintaining effective affirmative programs of equal employment.

“The review showed that we need to increase our focus on our equal employment opportunity program,” said NAVSEA Executive Director Brian Persons. “We fully recognize how critical this issue is, and will be increasing our efforts in 2011 to get this right --- to ensure our EEO program is as effective as possible.” Also, in 2010, NAVSEA held a series of Diversity Accountability reviews to define the senior level positions in the organization, and the career track to get to those positions. Additionally, these reviews looked at how we “manage” talent within the command to ensure that diverse candidates are included when these positions are filled.

“‘We’re looking at a fundamental shift in behavior in how we fill our leadership positions and how we manage our talent,” said Persons. “If we want to fulfill our mission, NAVSEA needs to attract the best talent, both from within and outside the command and that talent needs to reflect the face of America.’”

2011 will see the Command developing a strategy to ensure that diverse candidates are considered for every senior level position in the entire organization.

■ NAVSEA will create a culture that values diversity through proactive, results-driven talent management:
  ▪ Revitalize standards for establishing and maintaining effective affirmative programs of equal employment opportunity.
  ▪ Develop a plan for improving the pool of diverse candidates eligible to compete for higher level jobs across NAVSEA.

■ Develop and implement Talent Management Strategy policy
Perhaps the most important commitment NAVSEA has made in the last year is the commitment made to those who have served our nation in uniform – particularly Wounded Warriors.

NAVSEA launched an ambitious effort in 2010 to expand career opportunities to injured service members, far surpassing hiring goals set for the year. With a 2010 hiring goal of 134 across the organization, this coordinated effort saw 282 Wounded Warriors join the NAVSEA workforce, 210 percent of the year’s goal.

“This is something that everyone wants to do,” said Dennis McLaughlin, the Naval Surface Warfare Center Indian Head technical director who has been charged with leading the command’s Wounded Warrior hiring efforts. “Our workforce and our leaders are extremely patriotic, and this is something they recognize as extremely important. People have gone out of their way, they bent over backwards to bring Wounded Warriors in.”

In addition to exceeding Wounded Warrior hiring goals for each of its major sites, NAVSEA partnered with federal agencies and private organizations to develop programs for veterans to find employment at NAVSEA.

Through a partnership with state and philanthropic entities, NAVSEA's Learning and Employment Centers are the recognized model in public/private support of Wounded Warrior hiring. The collaboration of state and philanthropic funding with NAVSEA employment opportunities provides comprehensive assistance to veterans, from career counseling to job placement.

NAVSEA’s joint enterprise with Defense Acquisition University and Veterans Individual Assistance Training Link (VITAL) launched a contracting career pipeline for Wounded Warriors. With VITAL coaches serving as the liaison between Wounded Warriors in military treatment facilities and NAVSEA, Wounded Warriors follow a customized program of education and training while recuperating to gain certification in the acquisition field, and later job placement as a civilian employee.

In honor of NAVSEA’s support to Wounded Warriors, the command was presented the Wounded Warrior Hiring and Support Award at a Nov. 15 ceremony at the Pentagon. The award recognized NAVSEA’s commitment and achievement in support of Wounded Warrior hiring and reintegration practices.

NAVSEA will continue this push in 2011, pledging to hire an additional 365 wounded warriors – one for every calendar day.

“They bring tremendous experience that we just don’t have,” said McLaughlin. “Sometimes maybe we won’t quite understand exactly what’s going on in the field, so when you bring someone in who’s been there, done that, they can give us insight that we might miss. There’s no substitute to having someone who’s done the missions we’re designing equipment for.”

**FY11 Goals**

- Continue to set the federal service benchmark for hiring and career support of our nation’s heroes:
  - Hire one Wounded Warrior for every calendar day in FY 11.
  - Expand Learning and Employment Centers nationwide.
  - Manage the Veterans Individual Assistance Training Link (VITAL) Expansion program to include mentors in more than 10 hospitals nationwide.
Critical to NAVSEA’s ability to unify, standardize, and streamline all its business activities, the command fully implemented the new Enterprise Resource Planning (ERP) system at headquarters in 2010.

ERP is increasing NAVSEA’s ability to accurately plan, budget, measure and manage all of programs, and will provide unprecedented management visibility across the enterprise.

“NAVSEA now has one business system that is secure, reliable, accessible, and current,” said NAVSEA Executive Director Brian Persons. “We have updated and simplified our processes; we’re eliminating redundancies; and most importantly, we’re saving money.”

In the works for more than two years, successful implementation of ERP at headquarters required the involvement of all NAVSEA employees. And just two months after successfully going live with the system, that involvement is already paying off. Employee time-keeping and payment is already fully functional, simple acquisition and foreign military sales cases are being processed, and multi-ship, multi-option ship repair contracts are being awarded — all through the ERP system.

“Our workforce has really just done a tremendous job bringing the system online” said Persons. “It was by no means easy, and leadership here is thrilled at how well the command has done. We haven’t experienced any of the startup issues experienced by other systems commands.”

ERP Efforts will continue in 2011, both at headquarters and in the field. By April 1, NAVSEA will be able to conduct complex contracting using the ERP system, and by the end of the fiscal year, all of NAVSEA’s Warfare Centers and their detachments will have the system fully deployed.

“Whether you’re at headquarters or the field, ERP implementation is an all-hands effort,” continued Persons. “We need to keep working just as hard to complete system roll-out command wide.”

In a May 2010 speech commemorating the 65th anniversary of victory in Europe, Secretary of Defense Robert Gates called for a significant reduction of overhead costs department-wide, transferring the savings directly to cover urgent warfighting needs.

“As the Defense Department begins the process of preparing next’s years fiscal year 2012 budget request, I am directing the military services, the Joint Staff, the major functional and regional commands, and the civilian side of the Pentagon to take a hard, unsparing look at how they operate – in substance and style alike,” Gates said. “The goal is to cut our overhead costs and to transfer those savings to force structure and modernization within the programmed budget.”

Committing to that process, NAVSEA conducted a detailed review in 2010 to define acceptable levels of overhead reductions that would reduce cost with minimized risk to our ability to enable the warfighter.

“As the largest systems command, NAVSEA will find the appropriate areas where can make overhead reductions,” said Peggy Harrell, NAVSEA deputy commander for Total Force and Corporate Operations. “Based on current fiscal realities, it is unquestionably the right thing to do.”

Because the budget has not yet been released, it’s premature to discuss the specific reductions NAVSEA will make, but the command is, as always, working hard to fully align its mission with warfighter needs.

“The work we do here impacts the warfighter tremendously,” said Harrell. “The ships and systems we deliver are critical to maritime security. So we’re being extraordinarily thoughtful in our overhead considerations to minimize impacts to our programs and workforce.”

In early 2011, following the release of the budget, NAVSEA leadership will ensure the workforce is informed of any potential impacts from the overhead reduction initiatives.

**FY11 Goals**

- Successfully stabilize and sustain fiscal year General Fund functionality.
- Implement complex contracting functionality by April 2011.
- Be full prepared to deploy the system to the Warfare Centers and reaming sites by October 2011.
- Sustain existing functionalities.

**COMMITMENT TO NAVY PRIORITIES: ENTERPRISE RESOURCE PLANNING**

**with Mr. Brian Persons**

**COMMITMENT TO NAVY PRIORITIES: REDUCING OVERHEAD AT HQ AND FIELD ACTIVITIES**

**with Ms. Peggy Harrell**
NAVSEA, its field activities and affiliated Program Executive Offices (PEOs) are committed to creating more efficient processes to yield a better return on investments, and continue to identify and execute initiatives, such as the elimination of cumbersome work practices and pursuit of commonality, in an effort to reduce total ownership costs.

In 2010, at the request of the chief of naval operations, NAVSEA — along with the rest of the Navy — conducted a detailed review of areas where costs could be reduced or operations streamlined. Identifying hundreds of potential initiatives, the command submitted the 35 most promising, mature and technologically feasible.

“Across the Navy, the Pentagon chose 13 total ownership cost (TOC) reduction initiatives to invest in for fiscal year 2012,” said PEO Carriers Executive Director Bill Deligne. “Eight of those are NAVSEA initiatives. Obviously we’ve been very successful proving this command’s commitment to TOC reduction.”

Based on those approved 2010 TOC initiatives — ranging from improvements to training improvements on main propulsion diesel engines to revising Virginia-class submarine drawings — the Department will direct $50 million investment funding to NAVSEA for implementation. That modest investment is projected to yield almost $400 million in savings.

“We didn’t need an order from the Pentagon to focus on TOC,” said Undersea Warfare (SEA 07) Executive Director Steve Schulze, who, along with Deligne, has been working on TOC initiatives across the command from the last few years. “The fact that we were able to generate so many initiatives in such a short amount of time was proof. NAVSEA understands life cycle cost. We’re ahead of the game and we have been for a long time.”

NAVSEA has long funded TOC reduction internally, rewarding employees in 2010 with $190,000 in cash awards for successful lifecycle cost reduction initiatives. And it’s an entirely collaborative process, with input from industry and sharing of best practices among various PEOs and field activities.

“We recognize the cost of our systems is outpacing inflation,” added Deligne. “So we’re striving to keep down our acquisition and sustainment costs, generate savings anywhere we can, and put those savings right back into producing ships and systems.”

Over the next year, NAVSEA will continue the push to reducing total ownership costs wherever possible, and has already identified six new initiatives to invest in during fiscal year 2013.

“We’re delivering success stories,” said Schulze. “Our challenge is to keep looking for the next big initiative that’s going to pay off for us. We need to come up with newer, better ideas and be brave enough to check them out.”
Recognizing that energy independence is critical to the Navy’s mission, Secretary of the Navy Ray Mabus announced in 2009 a broad set of goals to increase the efficiency of ships and aircraft and reduce the Navy’s dependency on fossil fuels.

Although not specifically named as a fiscal year 2010 strategic focus area, NAVSEA had several ongoing initiatives in FY10 to support these goals.

“NAVSEA has really taken the lead in identifying ways to improve energy efficiency to support Navy strategic priorities,” said Rear Adm. Tom Eccles, NAVSEA’s chief engineer (SEA 05), whose office is leading NAVSEA’s energy reduction efforts. “Since the secretary’s announcement, we have taken incredible strides to test and evaluate the technologies required to increase efficiency of existing platforms, as well as evaluate new fuels to shield our operators from the effects of an unstable energy supply.”

Eccles’ office, assisted by the Surface Warfare Directorate and the Warfare Centers, has spent 2010 testing and investing resources to develop the systems necessary to demonstrate a “Green Strike Group” in 2012.

In 2010, NAVSEA engineers have installed five different energy saving technologies that, when fully implemented, are projected to produce nearly $24 million a year in savings. These initiatives include the installation of stern flaps and solid state lighting systems for ships in the amphibious fleet; underwater hull and propeller coatings to reduce drag on surface combatants; and the installation of a combustion trim loop system on amphibious ships, which alone is projected to save up to 2,400 barrels of fuel per ship annually.

The most recent major energy accomplishment of 2010 was the at-sea demonstration of an algae-based biofuel aboard both a rigid-hull inflatable boat and a riverine command boat. These tests were key to proving that the biofuel could be used in larger ships, including an LCAC and yard patrol craft, which are scheduled for field tests in 2011, followed by a demonstration on the Self Defense Test Ship in 2012.

“These individual quick win initiatives are really going to add up to some pretty tremendous fuel savings across the fleet,” Eccles added. “Particularly when combined with some of the larger tests we plan to run next year.”

FY11 Goals

- Complete test and evaluation the installation of several “quick-win” technologies:
  - Advanced underwater hull and propeller coatings on DDG 51 and CG 47 classes.
  - Stern flaps on LHD and LSD classes.
  - Combustion Trim Loop system on amphibious ships.
  - Solid state lighting on amphibious ships.
  - Smart voyage planner on all ships.

- Complete land-based testing on the DDG 51 Hybrid Electric Drive prototype to enable installation aboard USS Truxtun (DDG 103) in 2012.

- Test an alternative algae-based biofuel on an LCAC and yard patrol craft, leading to testing on Self Defense Test Ship in 2012.