Quarterly Report

SUMMER 2010

"Da plane, Da plane" ...famous words from the old TV Show "Fantasy Island." On board Patuxent River today, we have three Joint Strike Fighter variants, one P-8, Multi-Mission Aircraft, numerous Unmanned Aircraft Vehicles, an occasional large airship and our usual array of fixed, rotary and attack aircraft. The workload remains robust and resultantly our economy is doing well. Recent County statistics show our unemployment rate at 6.4%, as compared to 7.0% statewide (nationally 9.9%) with Patuxent River generating approximately 50,000 jobs (direct and indirect) to our Southern Maryland region. These are strong numbers compared to what is happening to many economies throughout our nation.

On the national level, Secretary of Defense Gates has begun to speak about reigning in Defense costs not only in terms of scaled back weapons programs but also holding a stronger line on internal costs (people and pay raises). He has proposed cutting the alternative (second) engine for the Joint Strike Fighter and cancelling the Air Forces C-17 cargo plane. Congress has in the past been very reluctant to support these requests. The defense budget will be under tremendous scrutiny over the next few years as our nation continues to climb out of its prolonged economic downturn and to help pay for other Federal programs enacted over the past year.

As we have previously mentioned, the Navy Alliance remains focused on supporting Patuxent River as a recognized National asset. Combining its aviation expertise with command, control, and communications capabilities and the recently opened Aircraft Prototype Facility, an extraordinary cadre of facilities and knowledge is growing that not only can support our Navy and Marine Corps aviation programs, but the war fighter worldwide and a multitude of Government

agencies. What does this mean to the reader not intimately familiar with "inside the gate?" Bottom line, it is high paying technical jobs located here. It's the opportunity for small businesses to establish themselves to provide not only the services the base needs directly (contractors) but for the numerous ancillary industries that service the overall population. All these initiatives also provide jobs for our children who will stay in St. Mary's County and help us grow an even higher quality of life.

Encroachment still is an unsettling issue. The recent oil spill disaster in the Gulf of Mexico has slowed down the Government's desire to drill off of the Virginia coast. At the same time the Navy recently flew its "Green Hornet" here at Patuxent River, a modified F-18 E/F that uses a bio-fuel gas mixture. Secretary of the Navy Ray Mabus was in attendance along with numerous other high level Government representatives. Wind turbines, as an alternative form of energy, still are in the mix.

We do want to wish VADM Dave Venlet much success in his new job as Program Manager of the Joint Strike Fighter program. We welcome VADM Dave Architzel back to Patuxent to lead NAVAIR. We bid farewell to RADM Gaddis, Mr. Greer, and CAPT Macyko and wish them well in their new assignments. We look forward to working with RADM (Select) Winter, Mr. Kessler, and CAPT Schmeiser.

As always, feel free to contact me with questions or comments

Respectfully,

Todd Morgan, President

• Irregular Warfare, Patuxent River and the 21st Century

By Todd B. Morgan, President

Irregular warfare (IW), broadly defined, "
is a violent struggle among state and nonstate actors for legitimacy and influence over
the relevant populations." The Department
of Defense's 2007 Capstone document on
IW, Joint Operating Concept on Irregular
Warfare, describes a broad range of operations
and activities occurring within this form of
warfare—each requiring improved capabilities
for our Nation to defeat our adversaries.
These operations and activities include:

- Insurgency
- Counterinsurgency
- Unconventional warfare
- Terrorism
- Counterterrorism
- Foreign internal defense
- Stabilization, security, transition, and reconstruction operations
- Strategic communications
- Psychological operations
- Information operations
- Counternarcotics

For the past few years a number of organizations at Patuxent River and St. Inigoes have been active in their support of the IW community as they have focused on expanding and diversifying NAWC-AD's role in support of the war fighter on a global scale. As the roles and missions of the war fighter have changed, a strategic thrust has emerged at focusing on expanding capabilities as highlighted in a few major areas. These include Special Surveillance, Special Communications, Counternarcotics, Interoperability, Rapid Prototyping, Unmanned Air Systems, Irregular Warfare, the Strategic Cell and the Naval Aviation Center for Rotorcraft Advancement (NACRA). The various competencies that are addressing these areas are working with a wide variety of

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2010 Quadrennial Defense Review Released

By VADM Brent Bennitt, USN (Ret.), Vice President

of Defense (DoD) released its 2010 version of the congressionally mandated Quadrennial Defense Review (QDR). This 105 page document responds to the requirement to, among other things, "review the DoD strategy and priorities ... and to set a long-term course for DoD as it assesses the threats and challenges that the nation faces and re-balances DoD's strategies, capabilities, and forces to address today's conflicts and tomorrow's threats'."

While there is considerable debate on Capitol Hill and among those who 'watch' these sorts of documents as to how well this year's YQDR meets the broad set of requirements laid down by the initiating legislation, the document does lay out two overarching objectives:

"First, to further rebalance the

capabilities of America's Armed Forces to prevail in today's wars, while building the capabilities needed to deal with future threats. Second, to further reform the Department's institutions and processes to better support the urgent needs of the war fighter; buy weapons that are usable, affordable, and truly needed; and ensure that taxpayer dollars are spent wisely and responsibly".

Further, the QDR sets specific direction for each of the four services. For our Navy, the QDR states that: "U.S. naval forces likewise will continue to be capable of robust forward presence and power projection operations, even as they add capabilities and capacity for working with a wide range of partner navies. The rapid growth in sea- and land-based ballistic missile defense capabilities will help meet the needs of combatant commanders and allies in several regions".

The QDR 'makes official' the cancellation of several large programs – among these are the Air Force F-22, the Army Future Combat System and

the Navy's future cruiser program, the CG(X). The document also states that the Navy's follow-on nuclear carrier program will be 'stretched out.'

However, from a naval aviation point of view, the QDR is supportive of all of the current aviation major acquisition programs, with particular emphasis on the F-35 Joint Strike Fighter and the EA-18 Growler. In addition, DoD directs that two helicopter squadrons will be dedicated to direct support of Naval Special Warfare units and acknowledges the Navy's effort to increase its carrier based long range striking capability by developing prototypes like the Navy-Unmanned Combat Aerial System (N-UCAS).

Finally, the foundational aviation elements of the Navy's force structure, the 10 to 11 fleet nuclear aircraft carriers and 10 carrier air wings, are specifically endorsed in the QDR. This, along with the requirement for four Marine Aircraft Wings, will underpin naval aviation's acquisition and sustainment program

requirements for the next four rounds of the defense budgeting process.

As the Obama administration's first formal endorsement of the Future Year's Defense Plan, QDR 2010 is strongly supportive of our current naval aviation 'Roadmap' and bodes well for our workload at Patuxent River and throughout the Naval Air Systems Command for years to come.



Governor Martin O'Malley Releases Plan to Make Maryland Nation's Epicenter For Cyber Security

Issued by the Office of the Governor and Thomas O. Evans, DBED

ANNAPOLIS, MD- Addressing the growing global threat of cybercrime, Governor Martin O'Malley joined Maryland's Congressional Delegation, federal and military officials and business leaders at the National Institute of Standards and Technology (NIST) in Gaithersburg to unveil an aggressive policy report that calls for establishing Maryland as the nation's epicenter for cyber security.

Developed with guidance from more than 50 public and private sector information technology and security experts, CyberMaryland highlights the State's key role in supporting President Barack Obama's national cyber initiative and is the first comprehensive inventory of any State's cyber security assets. Over the last year, Maryland has led the nation in the creation of computer systems design jobs, growing by 6.6 percent. "Cyber security touches everything we do - from grocery shopping to banking, to heating our homes and talking on cell phones. With 50,000 new computer viruses emerging every day and hackers becoming increasingly advanced, the need to protect our country, our companies and our families has never been more urgent," said Governor O'Malley, who serves as co-Lead on Homeland Security for the National Governors' Association Public Safety Task Force and sits on the U.S. Homeland Security Advisory Council.

O'Malley continued, "Maryland is poised to lead the nation's war on cyber crime. From the innovative work being conducted at NIST, our universities and Maryland companies both large and small, to our highly-educated IT workforce, we have a duty to ensure the safety and security of every American citizen against this growing threat."

Cyber threats have surged in the last year, with significant jumps in the number of consumers reporting financial fraud, malware infection and password detection, according to the 2009 CSI Computer Crime and Security Survey, which surveyed more than 400 organizations in July 2009. On average, identity theft cost each organization surveyed more than \$700,000, while losses from financial fraud cost \$450,000.

Key among the report's recommendations is the creation of a National Center of Excellence for Cyber Security in Maryland, which calls for a partnership between federal and State government, the private sector and academic institutions and includes an incubator; cyber security testing laboratories; information sharing about vulnerabilities in hardware, software and IT systems; education and training; and Cyber security/IT Law Council to advise the Governor and State leadership.

The recommendations also include launching an aggressive effort to brand Maryland as a hub of cyber intelligence, which would help the State to attract both national and global information technology companies; continuing to focus Maryland's academic efforts on science, technology, engineering and math (STEM) to meet the ever increasing workforce needs of the cyber and IT industry; and aligning the State's cyber security best practices with those of the federal government to ensure a cohesive and consistent vision.

"Cyber security is a growing and robust global industry, as more financial service companies, universities and retailers address their security needs and government agencies work to safeguard our nation's most vital networks," said Maryland Department of Business and Economic Development Secretary Christian S. Johansson. "With our unparalleled IT assets and a highly-skilled workforce of more than 126,000, Maryland is best prepared to lead the cyber security charge and tap into what is expected to be a more than \$800 billion global IT industry in 2010."

"NIST has a longstanding comprehensive program in cyber security research and standards and we're proud to be hosting this event," said NIST Director Patrick Gallagher. "Our efforts are greatly strengthened through collaborations with the state and private sector, and I welcome Gov. O'Malley's strong leadership in this area."

Maryland is home to more than 50 key federal facilities and 12 major military installations, including the National Security Agency,

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the Army's Communication and Electronics Command (CECOM), which will soon be locating at Aberdeen Proving Ground, and the Defense Information Systems Agency, which is slated to move to Maryland from Virginia in 2011, bringing 4,300 advanced technology jobs. Combined, these facilities and installations employ nearly 200,000 well-educated, highlyskilled government employees and contractors in cutting-edge research and development and scientific, medical and technological innovations. Maryland is also home to many of the nation's top defense contractors and has a growing cluster of private sector companies specializing in cyber security. In total, Maryland has one of the highest concentrations of technology jobs in the nation, with 10 percent of jobs classified as technology-related and led the nation in 2009 with the largest growth in computer systems design jobs.

The State is also a leader in research and development, ranking first in federal R & D obligations per capita, and second in federal R & D investment at \$12.2 billion. Maryland is home to several of the nation's top research universities, including Johns Hopkins and University of Maryland, College Park, the University of Maryland, Baltimore and the University of Maryland, Baltimore County, which combined conduct nearly \$1 billion in funded research annually.

To support the cyber industry, Maryland also has the nation's top rated public school system and is developing an education pipeline to produce highly-skilled workers trained in Science, Technology, Engineering and Math (STEM); has more than 20 colleges and universities that offer computer science degrees, including six State universities that are certified by the NSA as Centers of Academic Excellence; and is home to the nation's first business accelerator - the Chesapeake Innovation Center - for government innovation, homeland, national and cyber security initiatives.



Mr. Edward Greer moves to OSD

by R. Keith Fairfax, Senior Vice President

r. Edward Greer, former Executive Director Naval Air Warfare Center Aircraft Division and Deputy Assistant Commander for Test and Evaluation, Naval Air Systems Command moved to The Office of the Director, Developmental Test and Evaluation (DDT&E) that was created in May 2009. As the new Director, DT&E, he is the principal advisor to the Secretary of Defense and the Under Secretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) on DT&E. His mission is to ensure that developmental test and evaluation is effectively addressed throughout the entire acquisition life cycle.

As a part of its mission, DDT&E has responsibilities in the areas of policy and guidance, program oversight, T&E workforce, and program development including the review and approval of Test and Evaluation Strategies (TES) and Test and Evaluation Master Plans (TEMP) for all Major Defense Acquisition Programs. The initial foci for this office are workforce development, early developmental test and evaluation, our relationship with the Director, Operational Test and Evaluation (DOT&E), and new role for Government DT&E.

In addition, DDT&E will work with the Office of the Director, Rapid Fielding to provide DT&E support as we provide more effective and efficient technologies to the war fighter. To support these efforts, the office will advocate for rapid prototyping and medium and small-scale modifications to existing weapons systems through the government T&E infrastructure. These concepts are intended to reduce program cost and schedule for faster fielding of capabilities.

To accomplish this, DDT&E will be working with the Services and Agencies to reconstitute consistent responsible test organizations as

All the members of the Southern Maryland Navy Alliance wish to thank Ed for his dedicated service to the Naval Air Test Center, Naval Air Warfare Center, Aircraft Division and the Naval Air Systems Command and wish him the absolute best in his new position at OSD serving the war fighter, the DT&E community and the American people.

 County Update – Port of Leonardtown Winery is Best of Class

> by Bob Schaller, Director, St. Mary's County Department of Economic and Community Development

That's what the first vintage of Port of Leonardtown Winery has been called. And not just by the folks who have flooded in since the grand opening one week ago. And not just for one wine, but two, see http://facebook.com/pages/Port-of-Leonardtown-Winery/108408175848012. The

2010 Maryland Winemasters Choice "Best in Class" Awards include Best Dessert: Autumn Frost Vidal Blanc 2009, and Best Fruit: McIntosh Run 2009 (apple), both from Port of Leonardtown, see http:// marylandwine.com/mwa/awards/ winemasterschoice10.shtml. These two are among only seven best of class choices throughout the state. Especially rewarding is that Port of Leonardtown Winery is the only Winery to win two (repeat two) Best of Class awards, and the only winery south and east of Rt. 95 (or this half of the state) to win. It is important to understand that the judges for this competition are Maryland winemakers - not journalists, not experts, not spectators; but actual winemakers from around the state. Considering the competition from the great wineries in Calvert and the Eastern Shore who have been at this far longer, this ain't bad! In fact, it's outstanding coming out of the gate.

Of course there are many reasons. One worth highlighting is the winemaker, Pat Isles. An aerospace engineer by day supporting the V-22 program at NAS Patuxent River, Pat has been active in winemaking for the past 17 years. He has sharpened his craft through a commitment to training and development. All on his own dime. Pat is the vineyard manager at Summerseat Farm. He single handedly rescued and restored a formerly neglected vineyard there. Again, all on his own dime. Of course he makes their wine. Pat has amassed so much winemaking experience that the renowned consultant hired to assist the Port of Leonardtown Winery has basically endorsed all of Pat's winemaking recommendations. Here's to you, Pat for "Best of Class." Please stop by the Port of Leonardtown Winery to enjoy the County's newest site and attraction, see http://www.portofleonardtown. com/



Port of Leonardtown winemaker, Pat Isles, works with winemaking consultant Tom Payette on testing and selection of red wines in preparation for the second bottling of the first vintage. Payette is a noted national speaker and recognized International wine judge and Wine Tech columnist for Vineyard & Winery Management Magazine.

As one looks around today, Phase 1 of the new Aircraft Prototype Facility (APF) is near completion. And we see a wide variety of Unmanned Air Systems hovering around Patuxent and St. Inigoes ranging in size from the Global Hawk to the Fire Scout, and even smaller.

St. Inigoes annually hosts the Association for Unmanned Vehicle Systems
International (AUVSI) and the annual student competition that last year had 20 competing teams. (This year's goal is 30 teams.) The NACRA organization is a result of recent Base Realignment and Closure Commission (BRAC) language establishing Patuxent River as a Co-Center of Excellence for Rotary Wing aircraft.

The customer base of IW customers include multiple Joint Forces organizations, the US Coast Guard, Homeland Security to name a few. It is an exciting time to be involved in these evolutionary programs, stay tuned for more information.

Lightning II Goes Vertical

By VADM Brent Bennitt, USN (Ret.), Vice President, Chairman Joint Strike Fighter Committee

The first quarter of calendar year 2010 was filled with 'highs and lows' for the world's largest military procurement program - the Joint Strike Fighter (JSF) F-35 program. On the flight test side of the house, flight-testing was significantly accelerated when the third of the first three flight-test Short Takeoff and Vertical Landing (STOVL) F-35BS was delivered to Patuxent River on 17 February.

With a stable of test aircraft to work with, the flight test team at Patuxent began the process of carefully approaching the first vertical landing for a production representative F-35 Lightning II by flying test points at slower and slower airspeeds, evaluating flying qualities and propulsion system performance at each test point - a test technique known as 'build down' to a specific test point.

During the week of 15 March history was made when this 'build down' flight testing procedure resulted in the first production representative STOVL F-35, designated BF-1, executing the Program's

FIRST VERTICAL LANDING. With this milestone 'in the books', the testing program begins a broader program of flight envelope expansion, flying qualities evaluation during aerial refueling, flight preparations for loads testing and flutter evaluation, and ground Electromagnetic Compatibility testing.

In the not too distant future, aircraft BF-4 will join the Integrated Test Force Team here at Patuxent River. The arrival of this aircraft will mark yet another milestone in the test program as it will be the first developmental STOVL aircraft that has elements of the Mission System installed and ready for testing. BF-4 will arrive with the APG-81 electronically scanned array radar, the electronic warfare suite, the communications/navigation package and the helmet mounted display installed.

On the 'lows' side of the house, the Program is in the process of undergoing a significant review and restructuring following the announcement on 1 April that cost increases resulted in a breach of congressionally mandated Nunn-McCurdy limits. This rule requires the notification of Congress if the cost of a program increases by more than 50% during development.

In 2001, the per-aircraft 'price tag' for the F-35 was estimated by the Department of Defense (DoD) to be \$50M. After the ongoing review is completed, it is expected that the updated figure will be greater than \$100M per aircraft. The DoD expects to have the required re-certification for the Lightning II ready for Congressional review by June.

While it is anticipated that the recertification will not change the Initial Operational Capability (IOC) date for the Marine Corps of 2012, the IOC for the Navy's F-35C is expected to move to the right. By delaying the operational ready date for the Navy variant, the program will be able to restructure the test and acquisition schedules, thus taking considerable risk out of the development effort.

As we move into the summer months here in Southern Maryland, expect to see the F-35 Lightning II ever more frequently in our skies as the test program goes into high gear. And, by the end of the year, we will have both the Marine Corps F-35B and the Navy F-35C developmental testing moving forward side by side on the shores of the Chesapeake Bay.

Todd B. Morgan

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