

# Interview with Vice Adm. James D. McArthur Jr. Commander Naval Network Warfare Command

## **NETWARCOM's Global Mission**

*Naval Network Warfare Command creates warfighting and business options for the Fleet to fight and win in the information age. We deliver and operate a reliable, secure and battle-ready global network. We lead the development and integration of Information Operations capabilities into the Fleet.*

*To serve as the Navy's Functional Component Commander to U.S. Strategic Command.*

## **NETWARCOM's Mission Statement**

*To act as the Navy's central operational authority for space, information technology requirements, network and information operations in support of Naval forces afloat and ashore; to operate a secure and interoperable Naval Network that will enable effects-based operations and innovation; to coordinate and assess the Navy operational requirements for and use of network/command and control/information technology/information operations and space; to serve as the operational forces' advocate in the development and fielding of information technology, information operations and space and to perform such other functions and tasks as may be directed by higher authority.*

*Vice Adm. McArthur assumed command of the Naval Network Warfare Command March 26, 2004. The admiral talked to CHIPS about several of NETWARCOM's priorities including the new space cadre.*

*CHIPS: Let's talk about your top priorities starting with FORCEnet. NETWARCOM Deputy Commander Rear Adm. Singer said that the Navy must determine its doctrine and operations before it determines the shape of FORCEnet. Can you elaborate on what this means?*

**Vice Adm. McArthur:** Operationally, FORCEnet refers to the capabilities that dramatically improve the systems and processes for providing effective networked, Naval command and control in 2015-2020. Command and control is the means and methods by which a commander recognizes what needs to be done in any given situation and sees that appropriate actions are taken. The objective of FORCEnet is to provide commanders the means to make timelier decisions with better situational awareness than they currently can and to see to the effective execution of those decisions.

The underlying premise from which FORCEnet gets its power is the network effect, which causes the value of a product or service in a network to increase exponentially as the number of those using it increases. The more commanders, staffs, units, individual platforms, weapons and sensors that are linked together in a network, the more valuable will be each and the more powerful will be the overall network. We're in the process of wrapping up a FORCEnet functional concept, and planners will be able to envision key benchmarks in the developmental process. FORCEnet is not just information technology (IT) — it is the Doctrine, Organization, Training, Material, Leadership and Education, Personnel and Facilities coordination that leverages IT.

*CHIPS: Another of your mission areas is Information Operations. Would you explain what this is and how it will impact the way we conduct warfare in the future?*

**Vice Adm. McArthur:** The Chief of Naval Operations has estab-



lished Information Operations (IO) as a primary Naval Warfare Area, equivalent to Air, Land, Maritime, Space and Special Operations. It is comprised of five core military capabilities: Computer Network Operations, Electronic Warfare, Psychological Operations, Military Deception and Operations Security. IO is a major part of Naval forces' overall strategic planning and operations to shape and influence potential adversaries' understanding and intent. IO significantly enhances deterrence and accelerates the pace of operations.

*CHIPS: The CVN-21 program, the next-generation of aircraft carrier and the modernization of the entire fleet of DDG-51 Arleigh Burke-class destroyers have been talked about as part of the FORCEnet effect. Will FORCEnet require a heavy investment in structural changes to Navy ships, aircraft and shore facilities to ensure the flexibility that FORCEnet is expected to achieve?*

**Vice Adm. McArthur:** I think we'll see different equipment but not major structural changes. The concept behind FORCEnet is not just to bring more equipment and systems to the warfighter but to consolidate the existing multiple paths of information flow into a single integrated universal database from which users can create their own picture of the battlespace. FORCEnet architecture will enforce a discipline on all command, control, computers and combat systems to ensure this shared battlespace environment — within Naval forces as well as in a joint and coalition environment.

*CHIPS: Rear Adm. Singer talked about achieving FORCEnet goals of a level one capability in 2007, a level two capability in 2010 and a level three capability in 2014. Can you provide some examples of these levels of capabilities? (See Figure 1 on page 10.)*

**Vice Adm. McArthur:** FORCEnet is built around the synergistic integration of many efforts using a spiral development process that results in a 'system of systems.' It is an architectural framework that integrates warriors, sensors, networks, commanders, platforms, effects and weapons into a networked, distributed combat system.

FORCEnet will take current capabilities and develop them into a hybrid of initiatives to include remote sensors, UAV/UUV/CAVS and advanced human-centric interoperability. This would evolve into integrated systems — seamless, fault tolerant networks, dynamic battlespace deconfliction and be Web-enabled. Ultimately, in the 2015-2020 time frame, we would evolve to a fully integrated and interactive system for all users that would include fully-automated networks, consolidated decision-support tools and full human-centric integration of the 21st century warrior.

*CHIPS: What is NETWARCOM's role in enterprise IT in regard to the BLII OCONUS, IT-21, future requirements and IT governance?*

**Vice Adm. McArthur:** To answer this question, let me go back to NETWARCOM's mission — our mandate is to provide a reliable, secure, interoperable and affordable network that creates rapid, high quality decision-making, effects-based operations and combat readiness across the Navy. To do so, we must help to lead Navy's efforts to deliver a seamless network environment for our Sailors and civilians, whether they are at sea, overseas, at home or away from their home station on travel. One of the greatest challenges facing today's Navy is to make our various enterprise and stand-alone networks operate together as a whole and to bring this vision to reality — as soon as possible.

This means that users of today's program of record networks such as the Navy Marine Corps Intranet (NMCI), Overseas Naval Enterprise Network (ONE-NET – a new and more descriptive name for Base Level Information Infrastructure OCONUS – BLII OCONUS), and Integrated Shipboard Network System (ISNS) also known as Information Technology for the 21st Century (IT-21) need to be able to exchange their information seamlessly regardless of which network they're using, and they need to be able to exchange in-

formation with their counterparts in the other Services as well — this is the vision of a truly enterprise network.

Our role is to operate, maintain and ensure the security of today's networks — but also to be a forceful advocate for change to integrate the Navy's networks and, most importantly, to ensure that the applications and services that traverse the networks will work together and deliver warfighting capability to our Sailors into the future.

*CHIPS: NETWARCOM is working with the Joint Forces Command on Joint Battle Management Command and Control or JBMC2. Can you talk about your role in the JBMC2?*

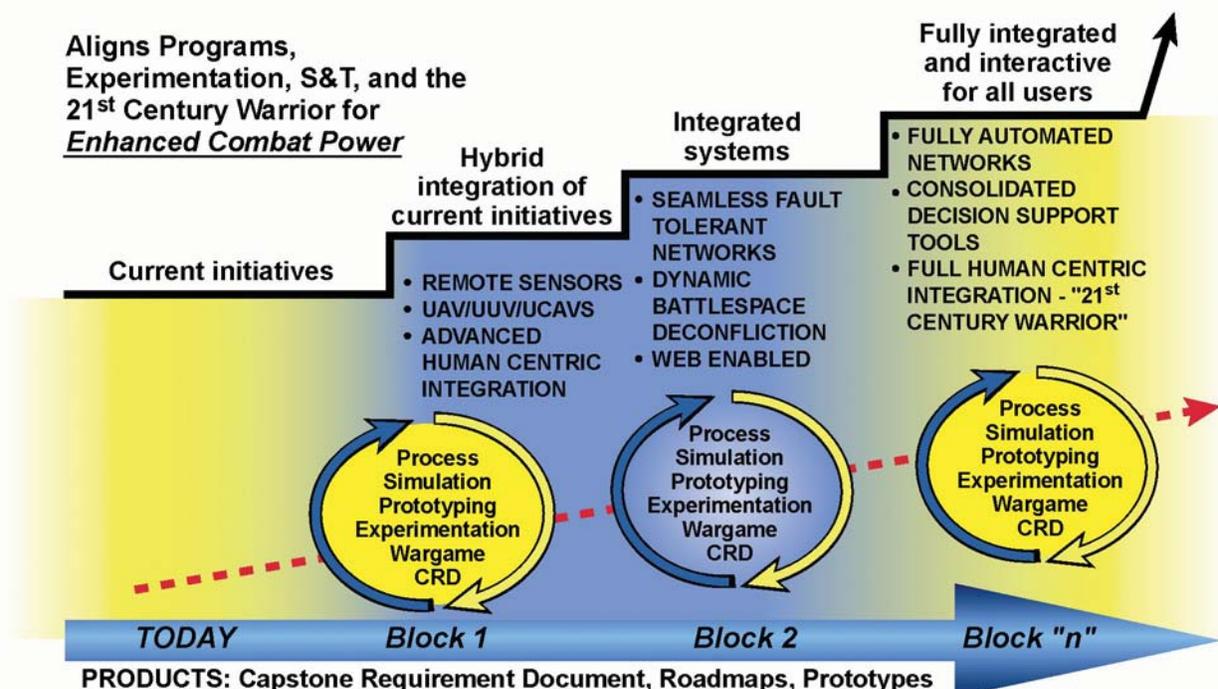
**Vice Adm. McArthur:** JBMC2 was initiated to promote DoD's goal of fielding fully joint and interoperable battle management command and control capabilities. As a result, JBMC2 cuts across a wide range of commands within the Navy and other Services. Naval Network Warfare Command, on behalf of Commander Fleet Forces Command, serves as the Navy's representative to the JBMC2 Board of Directors (BoD). As CFFC's representative, NETWARCOM provides an operational perspective to the numerous critical issues addressed by the JBMC2 BoD. Our work with Air Force Command and Control, Intelligence, Surveillance and Reconnaissance (AFC2ISR) and Army Training and Doctrine Command (TRADOC) complements the JBMC2 work.

*CHIPS: NETWARCOM has evolved since its inception a little over two years ago. Can you describe some of the changes that have taken place?*

**Vice Adm. McArthur:** Yes, we've grown in our mission responsibility, but we have been able to achieve overall net savings for

Figure 1.

## FORCEnet Capability Evolution





*Vice Adm. James McArthur in his office at Naval Network Warfare Command during the interview with CHIPS Aug. 30, 2004. The admiral talked about NETWARCOM priorities including FORCENet; information operations; network assurance and security; and the new space cadre.*

the Navy in both manpower and resources. NETWARCOM has assumed duties and responsibilities as a hybrid Type Commander for global C4 and Naval networks. Fleet Forces Command and Commander Pacific Fleet have divested most of the duties and responsibilities for these functions. The alignment of global C4 and network functions to NETWARCOM is intended to increase coherency, efficiency and capability of network management — and provide a single point of contact for network issues ranging from requirements to operations.

This alignment is a perfect opportunity for our Navy and NETWARCOM. Embedded in this alignment are expanded missions, responsibilities, authority and accountability. It centralizes network operations, command and control, information operations and FORCENet — which were created and developed with a unified fleet and joint perspective.

Ultimately, this expanded mission for NETWARCOM is about giving commanders greater command and control capability through networked C2 and combat systems to better employ a full range of effects in the battlespace. The alignment will ensure that speed, agility, flexibility, discipline and capability are integral to network-centric warfighting capability and business effectiveness.

*CHIPS: How is the Navy and NETWARCOM dealing with space policy and management related to Navy space personnel?*

**Vice Adm. McArthur:** Navy has established a space cadre to integrate the essential capabilities provided by space systems at every appropriate level throughout the Naval force and to shape the outcome of joint deliberations on future space systems capabilities to ensure combat effectiveness of Naval forces. The professional space cadre, competing for appropriate senior leadership positions in joint, national, and Naval space programs and organizations, will accomplish these important functions.

We've taken a multifaceted approach in partnership with the Bureau of Naval Personnel, Naval Post Graduate School and SPAWAR

### *Vice Adm. James D. McArthur Jr.*

*Vice Adm. McArthur graduated from the U.S. Naval Academy in 1972. Following his commissioning, he served on the USS Caloo-sahatchee (AO 98) and qualified as Officer of the Deck (U/I) prior to entering flight training. He was designated a Naval Aviator on Dec. 6, 1975.*

*Admiral McArthur arrived at his first fleet squadron, VF-211, in December 1975 and deployed twice to the Western Pacific/Indian Oceans on the USS Constellation (CV 64). After three and one-half years, Vice Adm. McArthur reported to VF-124 as an instructor pilot and landing signals officer. In July 1982, he returned to the fleet with VF-1, and deployed on the USS Ranger (CV 61) and USS Kitty Hawk (CV 63).*

*Vice Adm. McArthur was then assigned to the Office of the Chief of Naval Operations for Strategy, Plans and Policy (OP-60) in December 1984. In August 1986, he reported to VF-24 as executive officer, and assumed command of the squadron in December 1987. Upon detachment in May 1989, he reported to Carrier Air Wing FIFTEEN as the deputy commander. In July 1991, he transferred to the Bureau of Naval Personnel to become the Head, Aviation Commander Assignment Branch.*

*Following the BUPERS tour, he took command of Carrier Air Wing ELEVEN embarked on the USS Abraham Lincoln (CVN 72). After a deployment to the Arabian Gulf, he was reassigned briefly as the Head, Aviation Officer Distribution/Aviation Captain Assignments (PERS 43) and then was selected to serve as Executive Assistant to the Vice Chief of Naval Operations in July 1995. In August 1996, he became the Executive Assistant to the Chief of Naval Operations.*

*In May, 1998, he reported to the Joint Staff as the Deputy Director for Strategy and Policy (J5). He was relieved as Commander, Carrier Group TWO on May 25, 2000, and deployed to the Arabian Gulf with the Harry S. Truman Battle Group. After deployment, he was assigned as the Director of Operations (J3) at U.S. Space Command and subsequently, the Director of Global Operations, U.S. Strategic Command. March 26, 2004, Vice Adm. McArthur assumed command of Naval Network Warfare Command in Little Creek, Va.*

*Vice Adm. McArthur has more than 1,100 arrested landings and 4,300 flight hours and has been awarded the Defense Superior Service Medal (two), the Legion of Merit (three), the Meritorious Service Medal (four) and the Navy Achievement Medal.*

Space Field Activity. In addition, we share responsibilities with the Chief of Naval Operations staff to engage with the Department of Defense space architect and National Security Space Office. Additionally, we have developed a Fleet Space Campaign Plan to improve fleet effectiveness with smarter, more aggressive use of space.

*For more information about the Naval Network Warfare Command's priorities go to the command's Web site at <http://www.netwarcom.navy.mil/>.*

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