

# Interview with Rear Adm. John P. Cryer Commander, Naval Network & Space Operations Command



NNSOC was established July 12, 2002, through the merger of elements of Naval Space Command and the Naval Network Operations Command. This Navy initiative supports the Secretary of Defense's goals for transforming the U.S. military to meet 21st century asymmetric threats. The goals of this strategy include using space-based assets in support of information technology to link U.S. forces, and protecting our information networks from attack. This action was part of a broader organizational realignment that also established the Naval Network Warfare Command as the service's first type commander for the Navy network and the information technology, information operations and space systems that support it. Located at Naval Amphibious Base Little Creek in Norfolk, Va., NETWARCOM was created to be the central operational authority responsible for coordinating all information technology, information operations, and space requirements and operations within the Navy.

*Q: NNSOC was created in 2002 through the merger of the former Naval Space Command and Naval Network Operations Command. What was the Navy's rationale for undertaking this reorganization?*

The decision to stand up the Naval Network and Space Operations Command, or NNSOC, had its genesis in the initiatives begun by Admiral Vern Clark when he became Chief of Naval Operations in 2000. He quickly formulated plans to realign elements of the service to create a more efficient organization properly focused on the correct product or service to achieve the best possible return on investment.

What led to the formation of NNSOC, specifically, was recognition that the Navy lacked a central authority that was responsible to the fleet for network operations. It was very apparent at the time that while we had been touting ourselves as a network-centric force, in reality the Naval warfighter had no advocate for network operations. When a battle group commander would come back from a deployment, he didn't have a single, responsible organization to complain to when networks didn't work or connectivity wasn't there.

With that in mind, Admiral Clark approved the establishment of the Naval Network Warfare Command. Based in Norfolk, NETWARCOM was conceived to function as a type command responsible for coordinating all information technology, information operations and space activities within the Navy. As a corollary to that decision, CNO approved a proposal to merge Naval Space Command and Naval Network Operations Command into NNSOC, to be aligned as a subordinate organization to NETWARCOM to serve as its operational arm in coordinating Navy's space operations and providing network connectivity for the fleet.

*Q: What has been your primary focus during NNSOC's first year of operations?*

I've spent this first year learning what the fleet most needs from NNSOC — what was working well and what wasn't working well with regard to network operations — and determining how best to help them with connectivity problems. A particular issue we

tackled immediately was the outages that battle groups were typically experiencing while cutting over circuits from one communications area to another, such as sailing from the Mediterranean Sea and the European Command's area of responsibility into the Red Sea and Central Command's area of operations. In some cases, it was taking a day or more to transition ships from one network to another to restore their connectivity and communications. NNSOC has been successful in bringing flag-level oversight to our global network operations and, as a result, today we have effectively eliminated the lag time in battle group cutovers, or at least reduced it to a matter of a few hours. Our ultimate goal is to provide the fleet with seamless cutovers with no interruption in service.

Another primary focus of the command in our first year — and an effort that I'm very proud of — is our support of Operation Iraqi Freedom. Prior to the start of combat operations last spring, we realized that we had a monumental task ahead of us in trying to figure out how to make sure all fleet and allied warships had the kind of network connectivity that would be required for this scale of military operation.

In the final analysis, we were successful in ensuring that the more than 170 U.S. and allied ships participating in OIF had the communications resources they relied upon for mission planning and execution, whether it was the 500-plus Tomahawk cruise missiles launched against Iraqi targets or the countless Naval air strike missions launched from our aircraft carriers. NNSOC and our subordinate commands were clearly instrumental in providing critical support to our warfighters going in harm's way. I would say that our performance with regard to OIF validates the rationale for establishing this command.

*Q: What are your future near-term goals for the command?*

We are developing metrics to help us determine how best to build more automation and efficiency into our network operations. We are still maintaining older legacy systems, which tend to be enormously expensive because they require substantial manpower. Also at issue is the fact that legacy systems do not have the capabilities afforded by newer technology.

## Rear Adm. John P. Cryer

Rear Adm. Cryer received his officer's commission in 1976 through the Naval Reserve Officer Training Program upon his graduation from Jacksonville University. He was designated a Naval Flight Officer in March 1977. He trained as an electronic countermeasures officer at Tactical Electronic Warfare Squadron VAQ-129 and subsequently served with VAQ-130 where he made deployments aboard the USS Forrestal and USS Independence.

Cryer's sea duty has included multiple deployments aboard USS Saratoga with VAQ-137 participating in strike operations against Libya, a tour as executive officer for VAQ-129, and a third Mediterranean deployment aboard the USS Theodore Roosevelt as executive officer and commanding officer for VAQ-141, participating in Operations Provide Promise, Deny Flight and Southern Watch.

Beginning in 1998, Cryer reported as Commander, Electronic Attack Wing, U.S. Pacific Fleet. During his two-year command tour, he deployed to Aviano Air Base in Italy and participated in strikes during Operation Allied Force.

His other assignments have included tours with Air Test and Evaluation Squadron Five as an operational test director for an improved EA-6B Prowler aircraft, with Naval Air Systems Command in Washington, D.C., as the assistant EA-6B program manager, and with the Joint Chiefs of Staff as operations officer. In this last position, he was designated the Chairman Joint Chiefs of Staff Action Officer of the Year for 1997.

Cryer reported to the staff of the Chief of Naval Operations as the deputy director for the Requirements Assessment Division and as director of the CINC Liaison Division in July 2000. He served in Riyadh, Saudi Arabia from August through November 2001 as deputy commander for the Joint Task Force-Southwest Asia (JTF-SWA) to direct air operations in support of Operation Enduring Freedom.

Rear Adm. Cryer assumed command of Naval Space Command in Dahlgren, Va., on December 10, 2001 and directed the establishment of Naval Network and Space Operations Command on July 12, 2002.

Cryer holds master's degrees from the Naval War College, Salve Regina University and the National War College. He has 3,200 flight hours in the EA-6B and has executed 750 carrier-arrested landings.

Consequently, we're working hard to identify which legacy networks we can actually eliminate in favor of newer technologies to get us more capacity and to create cost savings. And this all folds very neatly into the requirements for FORCENet as this becomes more and more of a real program.

*Q: How will the establishment of NNSOC result in better support to the fleet?*

In NNSOC, the fleet now has a single point of contact for connectivity and network operations. We have program authority and operational control for communications across all media from shore to ship. That takes in everything from SATCOM in UHF and EHF frequencies to phone networks at shore installations to pier side plug-ins for ships in port.

We are in a position to look at fleet operations globally to characterize fleet requirements on a broader scale than perhaps is achievable through the regional Naval Computer and Telecommunications Area Master Station. From that perspective, we can better align fleet operations and we're in a better position to help the numbered fleet N6s as well as Atlantic Fleet and Pacific Fleet N6s to meet their specific combat requirements.

*Q: What are the greatest challenges in meeting the operational fleet's demand for telecommunications services and tactical information today, and how will NNSOC address those issues?*

One of the biggest challenges the fleet has right now is to use available network resources in the most efficient way possible. Conventional wisdom tells us we don't have enough bandwidth. We have a tendency to get all we can, and more is better and what we have is never quite enough. It is probable that we don't have enough bandwidth when we consider the operational tempo we had during OIF, for example. Admittedly, during that operation, we were using a great deal of leased commercial satellite communications assets to give us more bandwidth. Nevertheless, we have to be willing to look at what's most important in terms of information exchange. Take Navy legacy messaging, for example. When you look at the tremendous amount of message traffic that flows to the fleet through those channels, that volume of data hogs precious bandwidth in transmission and ties up other communications resources in the process.

NNSOC has a major role to play in helping fleet communicators articulate their requirements and understand what information is truly important. I see NNSOC functioning like a traffic cop responsible for directing and managing the flow of all types of information across a multitude of networks. If we fail to blow the whistle and raise our hand, so to speak, and intervene to help speed information traffic on its way, then we're not doing our job. One of the things that strikes me as being critically important, and a great role for NNSOC, is for us to provide the technical expertise and operational leadership that can influence the fleet to adopt the most efficient means of establishing and maintaining communications connectivity.

*Q: The Naval Space Surveillance System, designed, built and operated by the Navy for over 40 years, was turned over to the Air Force last year. What other changes in Navy's operational space activities do you foresee over the next few years?*

We take a great deal of pride in our history of operating the Naval Space Surveillance System. NNSOC and its predecessor organizations — the Naval Space Surveillance Center and Naval Space Command — have played a central role in monitoring objects orbiting the Earth since the beginning of the space age in support of fleet operations, manned space missions and defense of the homeland. Nevertheless, turning over the Naval Space Surveillance System to the Air Force was an appropriate action for Navy to take when you consider that this is a mission that has been pretty much exclusively the Air Force's as the operator of the national Space Surveillance Network.

On the flip side, Navy's role in space operations overall has the potential to grow over the next several years as we develop new systems and capabilities more closely aligned in support of our core mission. For example, NNSOC currently functions as the Satellite Systems Expert for UHF satellite communications for the Department of Defense. I expect to retain that function, and I believe our contribution in this area will grow further with Navy's deployment of the Mobile User Objective System, or MUOS, as the next-generation UHF SATCOM system for DoD.

Another capability that we've only recently begun developing is counterspace operations from the maritime perspective. That is an area that we need to continue to explore and remain actively involved in over the years ahead.

Another potential growth area for us is the development of a space cadre in the Navy. The OPNAV staff, with the leadership of Rear Admiral Tom Zelibor as deputy for C4 integration and policy, and deputy CIO for Navy (N6F), is working this issue now. The challenge for NNSOC down the road will be to determine how best to use and develop that human resource smartly and in ways that can benefit the Navy in the joint environment.

*Q: Has the organizational change that created NNSOC actually weakened the Navy's involvement in space?*

I can see how someone might come to that conclusion. Clearly, network operations have been in the spotlight for us in the first year and a half since we stood up NNSOC. Furthermore, in the move by DoD to fold U.S. Space Command into U.S. Strategic Command — which was really independent of the realignment of Navy's space organization — my role as the Naval component commander for CINCSpace was dissolved.

While these developments have brought about significant changes in mission focus for NNSOC, I don't believe they diminished Navy's bigger involvement in space. On the contrary, it was actually strengthened with NETWARCOM now serving as the functional component commander for space, networks and information operations for STRATCOM. This is a better alignment than having me serve as a one-star Naval component commander.

On balance, when you look at NNSOC today compared to what Naval Space Command was doing five years ago, I'm not personally convinced that we're doing that much less in space than NAVSPACECOM was then. We are still operating the Naval Space Surveillance System for the Air Force. We have developed a space control program that we didn't have five years ago. We're still providing a spacecraft telemetry and control capability through the Naval Satellite Operations Center. And we're still supporting space training and education in formal settings, such as the Naval Academy and Naval Postgraduate School, as well as through training teams and the development of Web-based support tools. When you look at the aggregate, we certainly haven't pitched out of the fight.

*Q: Will the establishment of NNSOC generate new career development opportunities or choices for Sailors in the IT rating or officers in the new Information Professional community?*

I fully expect that as this command matures that we're going to become a prime choice for shore duty among Navy members in

the information technology professions. I believe that NNSOC is an organization that can offer a unique opportunity for them to develop their expertise. We're sitting at the helm of all the regional NCTAMS — an overall command structure of 7,300 people located worldwide — and we're making operational decisions daily.

The great majority of our work relates specifically to the IT rate and the IP designators. I don't feel today I have the right numbers in those fields, and we're in the process of re-evaluating our manpower levels so that we can build a billet structure more properly aligned to our mission. I foresee smaller numbers of the right mix of NECs/designators throughout the command in the future. We are constantly looking at how we can create efficiencies through proper alignment, and that, I believe, will result in fewer subordinate commands meeting the mission needs.

In the meantime, we have formalized a unique training plan for Sailors currently being assigned to our military detachments involved with the operation of the Navy Marine Corps Intranet. We oversee Sailors assigned to detachments in Norfolk, San Diego and Ford Island [Hawaii] in support of the three NMCI Network Operations Centers, NMCI Base Operations and two NMCI Help Desks run by the EDS/Information Strike Force team. What we're doing is essentially embedding Sailors with the civilian team in the NOCs, Base Operations and the Help Desks. The Sailors are gaining valuable on-the-job experience in troubleshooting the specifics of NMCI. But, more importantly, they're presented with opportunities to go to school to earn state-of-the-art, industry-standard system engineer and system administrator certifications from CompTIA, Microsoft and Cisco, for example.

Through this program, Sailors can greatly enhance their careers in the IT field and the Navy gains a military workforce that is extremely technologically literate in the operation of NMCI. And we will be able to put this expertise to work at our Global NMCI NOC in Norfolk as we begin to maintain that staff with people who have gone through the NMCI Military Detachment training program and are very technologically accomplished.

### ***I want to have a robust network operations center that's able to react quickly and efficiently to the needs of the Navy customer***

We intend to expand the responsibility of the Global NMCI NOC in Norfolk to appropriately scale it to the size of the network. Right now we have deployed about one-half of the projected total 345,000 NMCI seats. We expect to have almost every seat deployed by the end of this calendar year. When you look at other enterprise networks of similar size, whether they're civilian or military, it is evident that a lot of horsepower is required to get things done and make sure the network is operated well. Successful companies don't just make the administration of their network an afterthought. By the same token, I want to have a robust network operations center that's able to react quickly and efficiently to the needs of the Navy customer.

***Editor's Note: Thanks to Gary R. Wagner, NNSOC Public Affairs Officer and editor of NNSOC's Domain Magazine, for his assistance with this interview.*** 