



SPAWAR Chief Engineer's Guidance 2010

Our Mission

“SPAWAR Engineering Competency provides cost effective engineering solutions for the development, delivery, and sustainment of integrated, interoperable, and effective C4ISR, Business IT and Space Capabilities. We do so through rigorous yet agile systems engineering and disciplined technical leadership.”

I. Introduction:

In my 2009 guidance, I asked you to ‘paint the plane in flight’ and *that you did*. Over the past year, I have gained an even deeper appreciation for the unique challenges that SPAWAR faces as a systems command and C4I provider and the added complexity of managing your business units as a Navy Working Capital Fund while simultaneously executing in a Competency Aligned Organization. I have witnessed the demands on your time and talent and the growing expectations placed on the Engineering Competency. Your personal and professional response to these demands and challenges continues to impress me. What I did not have a full appreciation for was that amid this already difficult tasking, 2009 would be a year of unprecedented change.

Last year opened with the uncertainties of executing under a new Presidential Administration and historical economic challenges facing the Department of Defense and the Nation. While changes in leadership and organizational construct are commonplace in our world, rarely does it occur to the extreme it did this past year. In addition to the inauguration of a new Commander in Chief, we witnessed the confirmation of a new Secretary of the Navy and numerous other changes in Navy leadership.

In recognition of our increased dependency on cyberspace and new threats associated with that dependency, the Secretary of the Navy directed Commander, U.S Strategic Command (COMUSSTRATCOM) to establish National Cyber Command (NCC), and further directed the Services to create a similar component. The Chief of Naval Operations directed the commissioning of Fleet Cyber Command, Commander 10th Fleet.

These changes had significant impact on two of our key stakeholders, Naval Network Warfare Command (NETWARCOM) and OPNAV N6. In parallel with this order, OPNAV N2 and N6 reorganized to form one organization supporting Information

Dominance. We were and will continue to be responsive and flexible as our stakeholders respond to these new demands.

Much closer to home, the competency leadership helped me through the rotating Deputy Chief Engineer and the subsequent in-brief of Mr. Spencer while also filling in for the gapped SPAWAR Systems Center Atlantic Deputy. Your focus despite significant change and your agility in responding to the tasking were the hallmark of the year and recognized across the enterprise.

II. The Year in Review - Celebrate Success: Our success this past year was characterized by your ability to draw from the abundance of technical talent that exists throughout Team SPAWAR and approaching the community's most complex problems through Integrated Product Teams (IPTs). These IPTs in many cases included multiple PEOs, program offices and systems commands, as well as joint and federal agencies. We made significant progress in establishing ourselves as the Navy's Chief Engineer for C4ISR and business IT systems and the recognized independent Technical Authority.

Some highlights from the year include:

- In January, the Naval Enterprise Leadership looked to SPAWAR, as the Technical Authority, to evaluate the Commander, Pacific Fleet Maritime Operations Center Proposal and future MOC architectures. This work progressed in an effort to influence POM 12 decisions and refinement continues today.
- In February, with the goal to consolidate Navy Data Centers, CNO N6 called upon SPAWAR to develop the Navy's architecture for data centers in accordance with Defense Enterprise Computing Centers Standards and Naval Networking Environment 2016. This work continues today as we explore cost and operating models and flex to include the IC Data Centers. In parallel to the comparison of data center consolidation among our many industry partners, significant work has been done to define how Services Oriented Architecture and cloud computing will play in the enterprise.
- As Federal co-Lead and Project Manager for Universal Core (UCore), we worked in concert with DOD, Department of Justice, Department of Homeland Security, and the intelligence community to release the UCore production baseline in March. UCore was used in a diverse set of missions including Ballistic Missile Defense (STRATCOM), ISR sensor web enablement (Defense Intelligence Agency) and many others.
- In response to the Assistant Secretary of the Navy for Research, Development and Acquisition led NGEN-CANES Alignment Summit in May, we formed the Network Alignment OIPT with the objective of a common user experience across Naval Networks and lower Total Ownership Cost through alignment with common and/or coordinated products/tools, specifications, acquisition documentation, contracts, and processes. This work focused on the development

of a Naval Networking Enterprise System Design Specifications, which will guide the design and procurement of all naval networks in the future.

- New threats brought laser focus on the security of our networks. In June NETWARCOM turned to SPAWAR to develop a comprehensive, actionable, and sustainable way ahead to a secure afloat cyber environment.
- Later that same month, the Secretary of Defense directed the stand up of USCYBERCOM and CNO directed the establishment of FLTCYBERCOM/Commander, 10th Fleet. SPAWAR formed the Cyber IPT to lead the technical input to the National Strategy for Cyber Security and proposed approach for DoD cyberspace operations. A Cyber Summit is planned for early in 2010.
- As our program sponsors realigned responsibilities we found ourselves shifting our focus to initiatives such as Joint Strike Fighter, and Joint Aerial Layer Network Analysis of Alternatives and continue to support the new N2/N6 priorities through the Information Dominance IPT. This IPT was created late in the year to complete the initial steps to create the Information Dominance Functional Architecture for the Navy. This work will roll into the development of capability roadmaps.
- Our Systems Engineering Technical Reviews continue to mature in scope and fidelity and increase positive impact on programs within Team SPAWAR as well as other systems commands, including Marine Corps Systems Command.
- Organizationally we placed Assistant Program Executive Office for Engineering within each of our PEOs and they began to deploy Assistant Program Managers for Engineering to improve systems engineering processes and standards across the Enterprise.
- The Enterprise Engineering and Certification (E2C) Lab was an extensive coordination effort that connected distributed labs via terrestrial and satellite communications to enable testing and collaborative engineering. Sponsored by PEO C4I, E2C provides end-to-end engineering and certification support for a wide range of programs as well as extensive experimentation capabilities. E2C will be an invaluable tool in our quest to engineer and deliver fully integrated and interoperable Information Dominance solutions.
- While responding to the emerging tasking and unprecedented change as a result of the cyber threat, you were able to remain focused on creating an enduring organization through a series of Strategic Workshops. We developed the 5.0 Engineering Strategic Plan and corresponding Strategic Communications Plan that will guide our key communications with our customers and stakeholders and complement the CAO efforts.

III. 2010 Focus Areas: The key initiatives of Competency Aligned Organization - defining and documenting technical processes, technical authority, fleet response, and measurements outlined in my 2009 Guidance - are absorbed into our 2010-2013 Strategic Planning Initiatives. This will provide a concise approach intended to align multiple activities in lieu of creating more work. Technical leadership is priority one. Technical rigor through sound, well defined and documented engineering processes will remain our focus in the upcoming year. To be successful in execution of our role as technical leaders we must ensure a healthy flexible organization and investment in our primary asset...our intellectual capital...our people. Our Strategic Plan Overarching Strategies focus on executing technical leadership, access to the required technical talent and our ability to communicate our value in a clear and concise manner. Below are the overarching strategies and objectives of the 5.0 Strategic Plan.

Overarching Strategy #1 – Execute technical leadership through systems engineering excellence enabling effective program and project management.

- Execute on demand, up-front systems engineering enabling interoperability and reducing total ownership costs of programs
- Conduct rigorous Systems Engineering Technical Reviews by certified technical warrant holders using approved procedures for programs of record
- Improve engineering performance by formalizing, documenting and incorporating feedback into our processes

Overarching Strategy #2 – Recruit, train, align, and retain the best and brightest technical talent to meet current and future demand signal.

- Forecast future demand signal for technical expertise
- Improve recruiting across the 5.0 Engineering Competency
- Increase our credentials and technical depth in designated warrant areas
- Ensure continuity through effective career planning, mentoring, and succession planning.

Overarching Strategy #3 – Improve stakeholder relationship management.

- Articulate the relevance and value of systems engineering to obtain key support and resources
- Increase SPAWAR's engineering influence and participation in key initiatives and organizations
- Develop and execute a 5.0 Strategic Communications Plan

IV. Way Ahead

I predict that in the year ahead we will be required to continue to flex with our customers and stakeholders as they solidify their changing roles and responsibilities. Internally, our focus will be to publish our 2010-2013 Strategic Plan, supplement with an actionable POA&M and execute to our defined goals. I admire your focus amid unprecedented change and surmounting challenge. I applaud your passion for your work and desire to serve. I look forward to the year ahead and remain proud to serve as your Chief Engineer.