July 27, 2008 - ZUMWALT: When 'good enough' is the foe of 'better'

The Washington Times

www.washingtontimes.com

ZUMWALT: When 'good enough' is
the foe of 'better'

COMMENTARY:

By James Zumwalt

July 27, 2008

Cold War Soviet
Fleet Adm. S.G. Gorshkov was fond of the quote, " 'Better' is the enemy of 'good enough.' " While embracing evolutionary improvements to existing naval assets - ensuring they were good enough to perform intended missions - Adm. Gorshkov committed billions of rubles to revolutionary naval advancements and game-changing technological "firsts."

Today, an
increasingly strident debate focuses on our Navy's future - should it take an evolutionary "good enough" approach or a revolutionary "better" one. The choice is stark: move forward with the revolutionary new-design Zumwalt-class DDG-1000 multimission warships or continue the evolution of legacy Arleigh Burke DDG-51 destroyers designed in the early 1980s.

Congress is
divided: The Senate clearly looks to "better," strongly supporting the president's program for seven DDG-1000s, while some House members seek "good enough" - temporarily staying the DDG-1000 program, or killing it completely, and continuing to build in-service DDG-51s before moving to another new surface warship concept. The House Armed Services Committee holds hearings July 31 to debate the issue.

The Navy's
requirement is 62 Burkes (the last appropriated in fiscal 2005) to complement 22 Ticonderoga-class cruisers. With a 35-year service life, the 62nd Burke would retire around 2050. Periodic modernization will keep DDG-51s "good enough" for general-purpose roles, missions and planned tasks, including important ballistic-missile defense needs.

But an evolutionary approach continuing to churn out DDG-51s ignores the reality that scant "real estate" exists in the latest Burke design for technologies to meet daunting littoral threats. It also ignores a decade of intense and costly research, development and engineering now poised to deliver a truly revolutionary warship - one Adm. Gorshkov would envy - to meet critical requirements.

The DDG-1000 design represents the greatest technological advancement the Navy has ever made in a single ship platform. This multimission warship pushes operational envelopes and capabilities far beyond today's U.S. and foreign-navy ships. As the first "Post-Cold War" and "Post-Sept. 11" U.S. surface warship, DDG-1000 is designed for what Defense Secretary Robert Gates calls "today's wars," while delivering game-changing multimission capabilities for other 21st-century needs. When the lead ship, USS Zumwalt, named for Chief of Naval Operations Adm. Elmo Zumwalt, delivers in 2013, it will be the world's most capable, mission-flexible and agile surface combatant.

The Zumwalts will not replace in-service warships. They satisfy critical littoral and expeditionary warfare requirements the Navy and Marine Corps determined cannot be met with in-service assets - validated by the Joint Requirements Oversight Council (JROC). Advanced radar and stealth technology enables DDG-1000 to engage air threats well beyond the threat's ability to detect and attack DDG-1000 - something no existing surface warship can claim. Its highly survivable missile-launch system accommodates long-range attack and anti-air missiles as well as future multiwarfare weapons. Its two 155-mm guns each have 600 rounds of precision-guided projectiles capable of pinpoint-accuracy at ranges greater than 70 nautical miles and high rates of fire. The Integrated Undersea Warfare System enables it to operate safely in difficult littoral combat environments, while its open-architecture computing systems facilitate cost-effective future warfighting capabilities inserted into a "plug-and-fight" framework throughout the class' lifetime.

Design maturity and cost are the heart of today's debates. Technological and financial risks in building DDG-1000 have been minimized by the Navy's "build a little ... test a little ... build a little more" philosophy and an engineering development model risk-mitigation approach for which the service invested $2.9 billion and three years to execute, with stunning results. Mission systems have met technical and financial objectives, with 94 percent already released to production. Software production has been recognized as "world class."

Advanced computer-aided design capabilities, coupled with lessons learned from recent U.S. shipbuilding and conversion programs, undergird the Navy's confidence the Zumwalts can be delivered on time, on budget and ready for duty. The Navy has already "built" DDG-1000 in simulated construction programs thousands of times, ensuring it is right before its keel is laid. In late-2008, more than 80 percent of the lead ship's detail drawings will be complete - unprecedented in Navy new-construction warship history.

The Navy

continues to minimize risk and uncertainty via fixed-price/incentive-based contracts and other design and production innovations. For example, DDG-1000 class is designed for optimum shipyard production, resulting in significant labor-hour and cost reduction. And rather than pursue a "winner-take-all" approach, building all DDG-1000s at a single shipyard, the Navy's firm-fixed-price option strategy for the remaining five ships to be built at two shipyards will maximize competition, minimize costs and ensure critical elements of the nation's industrial base are sustained for farther-future needs.

In February, the Navy awarded $1.3 billion shipbuilder contracts to Northrop Grumman and General Dynamics/Bath Iron Works to build two lead ships under the unique acquisition strategy well-supported by Congress. The approximate delivery cost of each ship is $3.2 billion. And, the Navy is confident each of the remaining five DDG-1000s can be delivered for $2.7 billion.

Critics claim these estimates are wishful thinking, calling for the Navy to "can" DDG-1000 and re-start the DDG-51 production line before moving to the next-generation CG(X) guided-missile cruiser. Various estimates indicate one DDG-51 will cost $2.2 billion; two for $3.5 billion. But, these outside estimates may be understated for failing to consider growing shipyard supplier constraints and diminishing manufacturing sources.

Also, building possibly less-expensive follow-on DDG-51s would sacrifice numerous "game-changing" capabilities, satisfying critical operational needs. The Navy does not have a JROC-validated requirement for more than 62 DDG-51s, and there are doubts the Burkes can meet all validated Marine Corps naval fire-support requirements.

These concerns prompted Rep. John Murtha, Pennsylvania Democrat and chairman of the House Appropriations Subcommittee on Defense, to proclaim: "We're not going to start up the DDG-51 line again. Not with my money."

Congress must make a tough decision: Spend more on the DDG-1000 now, resulting in greatly reduced operating and support costs for its smaller crews in the future, or spend less now on building additional DDG-51s, facing rising operational and support costs later for the much larger crews these ships require. Either way demands a significant financial commitment. But, the multimission DDG-1000 will leave our Navy better prepared to face the myriad of 21st-century technological challenges to its control of the seas.

DDG-1000 is the next-generation's "better" that augments today's "good enough."

James Zumwalt is a retired Marine and son of

Admiral Elmo Zumwalt, after whom the DDG-1000 class has been named.