

NDIA Briefing for VADM Greenert 12 July 2007

Milo Hyde Chairman Undersea Warfare Division
VADM (ret) Dennis Jones

Executive Summary – Why are we here?

- Perception: We are becoming detached from our customer base
 - ★ Possible lack of awareness
 - ★ NDIA might not working smartly
- Division leadership has not visited senior customers in years
- Seeking to reintroduce ourselves and our capabilities
- Desire to reinvigorate Navy/NDIA relationship

Executive Summary – Why is this important?

- We believe USW remains a critical assured access enabler
- We believe USW has suffered in GWOT budget environment
- We believe USW community must hang together (or separately)
 - ★ Articulate importance of warfare area
 - ★ Jointly state clearly the new requirements
 - ★ Justify and defend budget priority

Executive Summary – Why NDIA USW?

- Our division's expertise, like the warfare area, cuts across all warfare domains and platforms
- Unlike many other industry organizations, we exist solely to address warfare technology and associated equipment and infrastructure
 - ★ Communication protocols, software architectures, sensor designs, interface descriptions, operational concepts
 - ★ No other group can muster the technical scope and reach
- We can assemble an industry team of experts on virtually any subject and at any technical level
- We have always tackled the really difficult issues and we always ask and address the hard questions

Executive Summary – What do we need?

→ From the Navy

- ★ Stand up for NDIA – Sponsor, Advocate, Communicate
- ★ Participate in events – not all; but one or two key events per year
- ★ Keep NDIA in the loop, make NDIA part of the team and dialog
- ★ Provide direction to Division on focus areas

→ From our Industry Members

- ★ Participate in USW community discourse and NDIA events
- ★ Advocate USW issues within industry and community
- ★ Dedicate time and intellectual capital to the cause



***Undersea Warfare Division
Leave Behind Material***

- Mission: Support the Navy with countering submarine and mine threats to the free and open flow of sea borne commerce and to the conduct of power projection from the sea.
- Strong industry and government support
- Technical Committees
 - ★ Major areas of Navy interest
 - Mine Warfare
 - Undersea Vehicles
 - C4 and Combat Systems
 - Sensors
 - Aviation USW
- Over 50 active participants in Executive Board and Advisory Council
 - ★ virtually every U.S. USW company

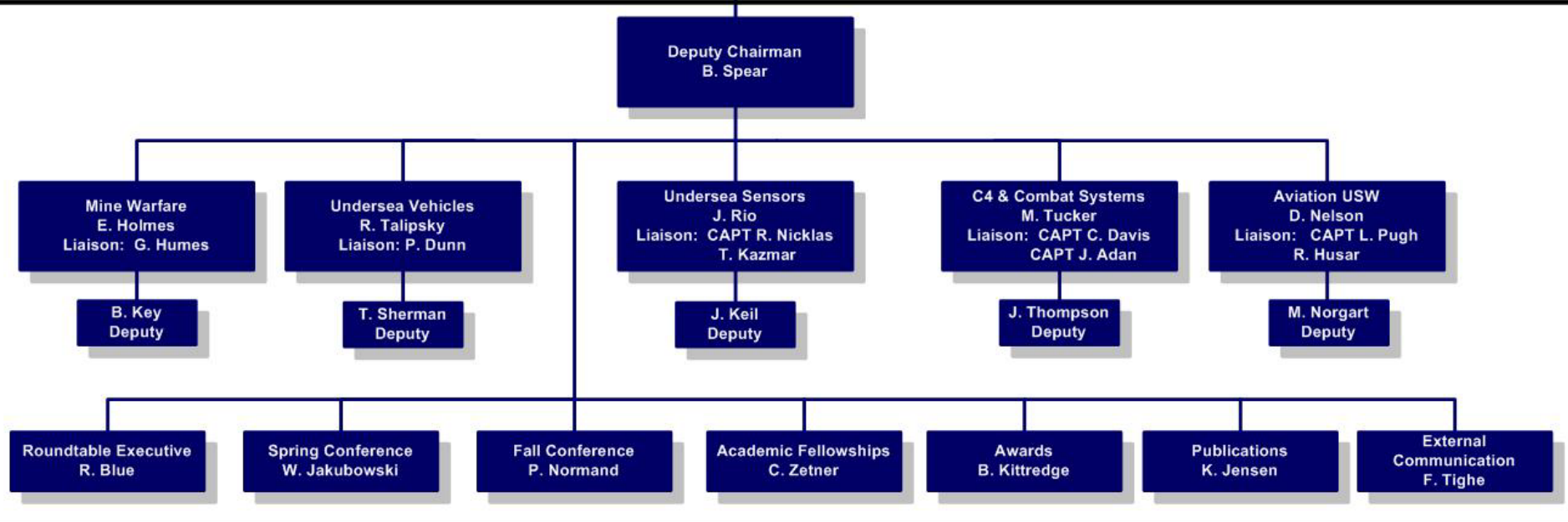
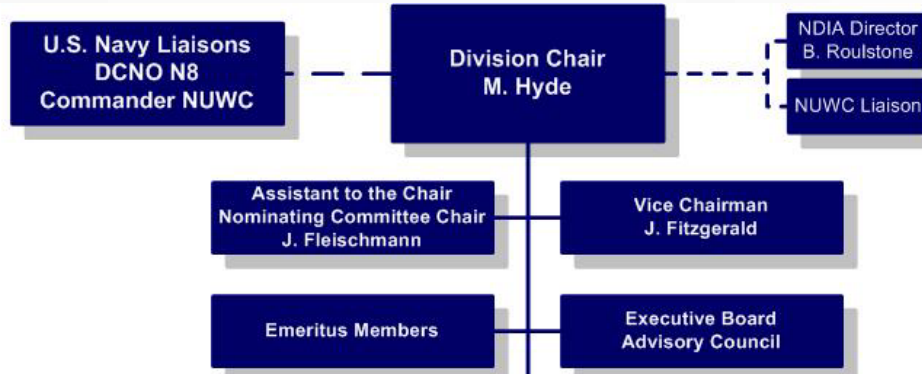


Project 677 Lada Diesel Electric Submarine

Executive Board and Advisory Council Companies

Assett	Lockheed
Boeing	Mantech
DRS	Northrop Grumman
EDO	PSU
GD	Raytheon
JHU APL	SAIC
L3	Ultra
	Verizon

Undersea Warfare Division Organization



Activities of the USW Division

- Two world-class conferences each year
 - ★ Fall Clambake, New London; Spring Conference, San Diego
- Annual Fleet Visit – LANTFLT, PACFLT
- Best-in-class Newsletter outlining Division activities
- Doctoral scholarship program
- Awards
 - ★ Bronze Medal Distinguished Technical awards – Clambake
 - ★ NDIA/ASN (RD&A) Award for Excellence in Undersea Warfare Technology
 - ★ Distinguished Service awards – Spring
- Sponsored studies on focused USW issues

Activities of the USW Division



A Message from Our Liaison

DONALD F. MCCORMACK, TECHNICAL DIRECTOR, NAVAL UNDERSEA WARFARE CENTER

Pacing the Threat

A I look forward to the joint Undersea Warfare Technology Spring Conference, "Pacing the Threat — Getting the Strategy Right for the 21st Century." I am struck by the complexity of the environment in which we operate; by the tremendous organizational and behavioral changes we have made to adapt to the post-Cold War post-9/11 world; and by the changes and realignments we have yet to undertake to meet the needs of the 21st century Navy. We have developed a broad spectrum of partnerships with other government organizations, industry, and academia to enhance performance through collaboration, pooling resources and skills. Representatives from across the navy, the Pentagon, SYSCOM program offices, Naval and university labs, and the defense industrial base will come together at the conference to bring their collective knowledge to bear in addressing undersea warfare (USW) challenges and opportunities.

Take the phrase itself "pacing the threat." It isn't a new term and it can have many implications. Part of the challenge we face, is to define what pacing the threat means in the context of today's and tomorrow's uncertain world. When you cannot see the threat, greater numbers of capable forces are required. When you can see the threat, fewer, highly capable forces are adequate. ASW is a warfare mission where you can no longer see the threat and we must figure out how to achieve the effect of greater numbers of forces.

Undersea superiority provides the competitive advantage of gaining and sustaining battlespace access, developing and sharing knowledge, and projecting power. It is critically important that we preserve our undersea superiority by staying ahead of potential enemies across an expanding set of operational capabilities. Speaking to the Surface Navy Association National Symposium in January 2006, CNO

ADM Mullen noted, this does not mean that we must acquire the "Star Wars" version of every new concept. Yes, we need to "stretch our imaginations," but we also need to be "selective and efficient." Affordability is, and will continue to be, a critical driver. Affordability does not mean "cheap," and low bidding and cost overruns are simply not an option. We must also be able to be agile and adapt quickly while preserving our technical authority, setting high standards of technical competence and systems engineering expertise.

— DONALD MCCORMACK

Our choices will be driven by several known factors. We are, operating in an increasingly constrained fiscal environment that is likely to persist given the budgetary requirements of competing national priorities. As a result, there will continue to be more requirements than there are dollars to meet them. Yet we must still find ways to achieve the CNO's top priority of building a 313-ship Navy by 2020, and address VADM Donnelly's three objectives that he recently set forth as Commander Submarine Forces. His goals are to achieve operational excellence, provide professional



DON MCCORMACK, TECHNICAL DIRECTOR, NAVAL UNDERSEA WARFARE CENTER

development of Submarine Force personnel, and work to improve submarine maintenance, modernization and recapitalization, focusing on Virginia-class cost reduction, modernization through programmed initiatives, and improvements to our maintenance programming and execution processes to deliver ships from depot availabilities on schedule and at cost.

To fulfill the nation's security needs in this new century, the 2006 Quadrennial Defense Review called for shifting our traditional warfare capabilities to effectively confront an array of asymmetric challenges across four

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- ➔ Best in class 10-page glossy newsletter outlining our activities
- ➔ Strong contribution from Navy

Fall 2007 Edition

- Specific operational or technical issues requiring investigation
- Brings the full intellectual energy of industry-academia-laboratory-Navy to the issue
- Requires Navy sponsorship
 - ★ Terms of Reference and Tasking Letter
 - ★ Support for access to classified information
- Division assigns a Study Leader and seeks participation from the total community
- Periodic reviews with sponsors
- Final report and follow-on tasking

Recent Studies

→ ASW Common Tactical Picture

★ Sponsor: Chairman, ASW CFB

Status: In progress

→ USW Distributed Netted Sensors

★ Sponsor: Director, Sea Shield

Status: Sponsor brief: May 07

→ Littoral ASW Technology Trade-off Study for Self and Force Protection

★ Sponsor: Director, Sea Shield

Status: Complete

Final Brief: Sep 05

★ Impact: Sponsor concurred with study recommendations; integrated into the analytic effort for PR07 investment strategy

→ Peer Review of FORCEnet Architecture and Standards

★ Sponsor: Commander, SPAWAR;
Commander, USW NAVSEA

Status: Complete

Final Brief: Apr 2004

★ Impact: Input to evolving FORCEnet Architecture and Standards

→ Open Architecture, Dual Commercial/Military Use of Large Displacement Unmanned Undersea Vehicles

★ Sponsor: PMS403

Status: Complete

Final Brief: Feb 05

★ Impact: The study failed to identify a business case for UUV dual-use

→ Sonobuoy Receiver Digital Output Interface Study

★ Sponsor: PMA264

Status: Complete

Final Brief: Apr 03

★ Impact: STANAG 4283 Annex C Revision 5 in January 2006

★ Impact: Interface adopted by P-8A, P-3C, and MH-60R Programs



P-8 Poseidon

Benefits to Navy and Industry

- Relationship between Navy and industry
 - ★ Frequent, constructive communications
 - ★ Common understanding of warfare objectives and requirements
 - ★ Sense of community focuses human capital and intellectual energy on the common threat vector
 - ★ Better focus of industry R&D resources
 - ★ Broad and deep pool of operational experience
 - ★ Affords Navy access to motivated industrial workforce for ideas and messages
 - ★ Affords Industry access to Navy leadership responsible for formulation of concepts, technologies, requirements, budgets, systems



What Stryker has to say about USW.....

Look guys, Undersea Warfare is tough
But it's tougher if you're stupid.....

Whatever happened to Speed,
Maneuver, and Deception?





***NDIA Corporate
Leave Behind Material***

→ NDIA Vision:

- ★ *NDIA will serve as America's leading Defense Industry Association promoting National Security*

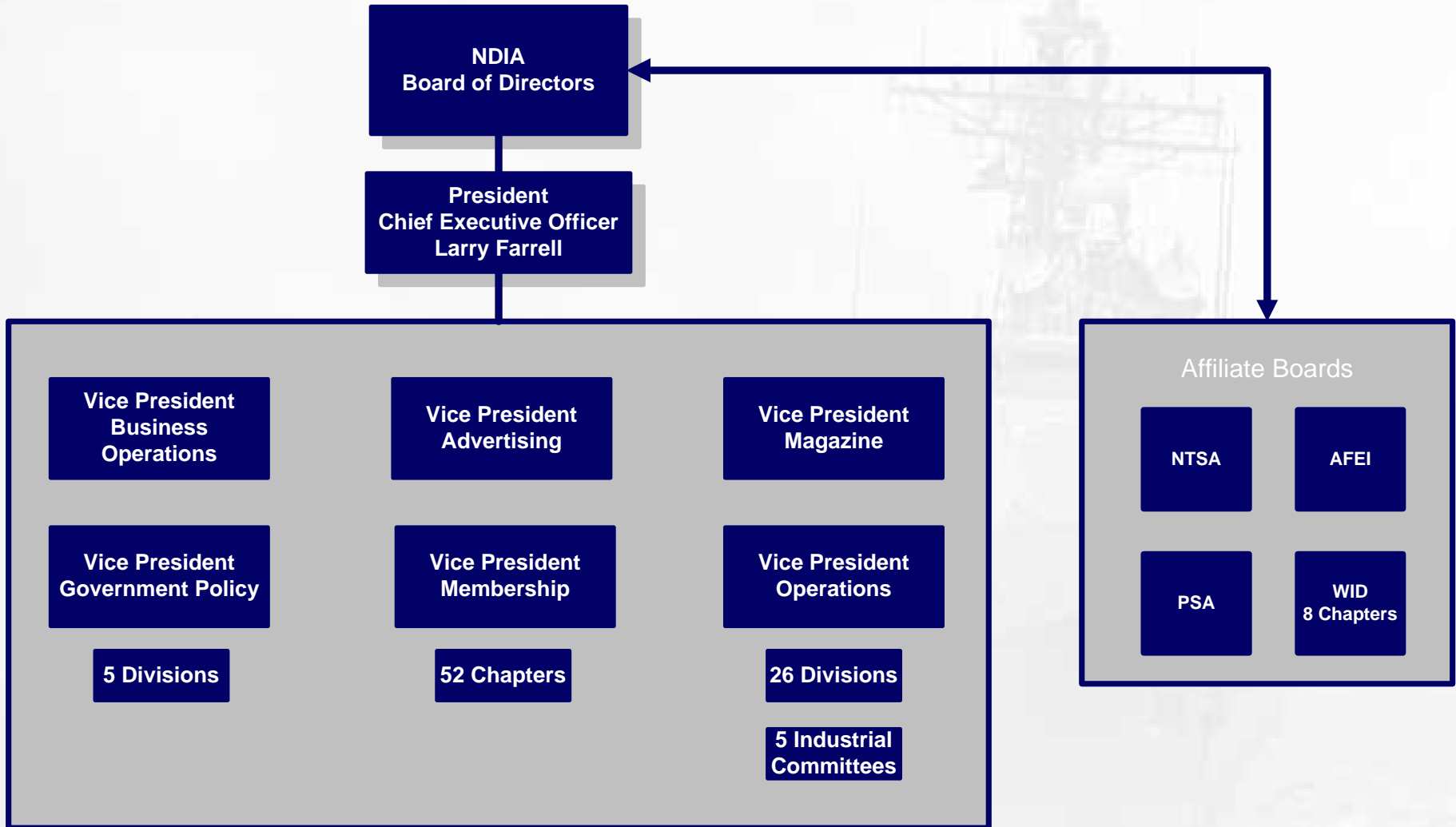
→ NDIA Mission:

- ★ **Advocate:** Cutting-edge technology, superior weapons, equipment, training, and support to the War-Fighter and First Responder
- ★ **Promote:** A vigorous, responsive, Government - Industry National Security Team
- ★ **Provide:** An information exchange forum between Industry and Government on National Security issues

→ NDIA formed by merger of NSIA and ADPA in 1997

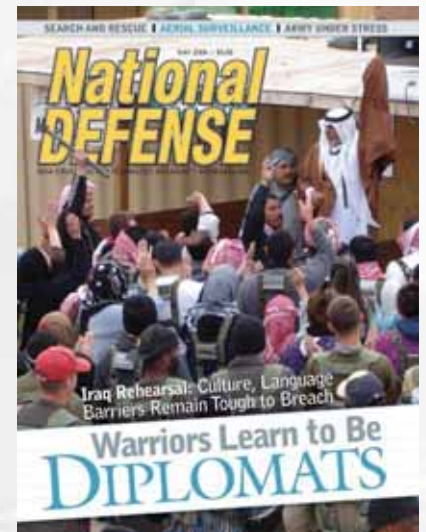
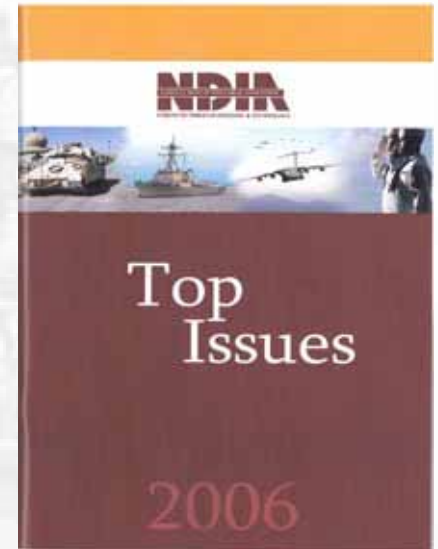
→ 41,000 industry members; 12,000 government members

NDIA Organization



NDIA Publications

- *National DEFENSE* Magazine -- monthly coverage of defense developments, trends, and issues. Covering Defense since 1921.
- “Top Issues” -- published annually to outline key focus areas for NDIA efforts
- Mega Directory -- published annually in August issue of *National DEFENSE* - provides key information and POC’s for corporate member companies.



- Aberdeen PG
- Albuquerque
- Arizona
- Ark-La-Tex
- Capital Cities
- * Central New Jersey
- Central Florida
- Chicago
- China Lake
- Cleveland
- * Delaware Valley
- Greater El Paso
- Florida Peninsula
- Cumberland Valley
- George Rogers
- Greater Atlanta
- Greater Hampton
- Greater LA
- Greater NY&CT
- Gulf Coast
- Iowa-Illinois
- Indian Head
- Lone Star
- Michigan
- Mid-Continent
- Nebraska
- North Carolina
- Northern California
- Northwest
- Oregon&Vancouver
- Pacific Northwest
- Panhandle
- * Picatinny
- Pittsburgh
- Pontchatrain
- Razorback
- Rio Grande
- * Rocky Mountain
- * San Diego
- South Carolina
- South Texas
- Saint Louis
- * Tennessee Valley
- Texas
- Utah
- * Washington, DC
- West Virginia
- Wisconsin
- Wright Brothers
- Yankee

NDIA Divisions

- Organizations through which members get involved
- 31 Total: 26 - Operations, 5 - Government Policy
- Industry and government volunteers
- Nationally oriented - all chartered – DoD sponsors
- Studies, conferences, meetings & symposia
- Minimum objective - revenue neutrality

Technology and Government Policy Divisions

Technology Divisions

- Space
- Missile Defense
- Armaments
- Science & Engineering Technology
- Munitions Technology
- Chemical Biological Defense
- Bombs & Warheads
- Manufacturing
- Ballistics
- Tactical Wheeled Vehicle
- C4ISR
- Systems Engineering
- Technical Information
- Test & Evaluation
- Homeland Security
- Combat Vehicle

Government Policy Divisions

- Environmental & Energy
- International*
- Health Affairs
- Logistics
- Legislative Information*
- Procurement*
- Government Policy*
- Small Business*

* In Government Policy Business Center

Warfare Divisions

- Expeditionary Warfare
- **Undersea Warfare**
- Strike, Land Attack & Air Defense
- Air Targets, UAVs & System Ranges
- Combat Survivability
- Special Operations/Low Intensity Conflict
- Night Operations

- Intelligence (Mod to C4ISR Division)*
- Robotics*
- Combat Vehicles & Tactical Wheeled Vehicles*

*New Divisions