

Gun and Missile Systems

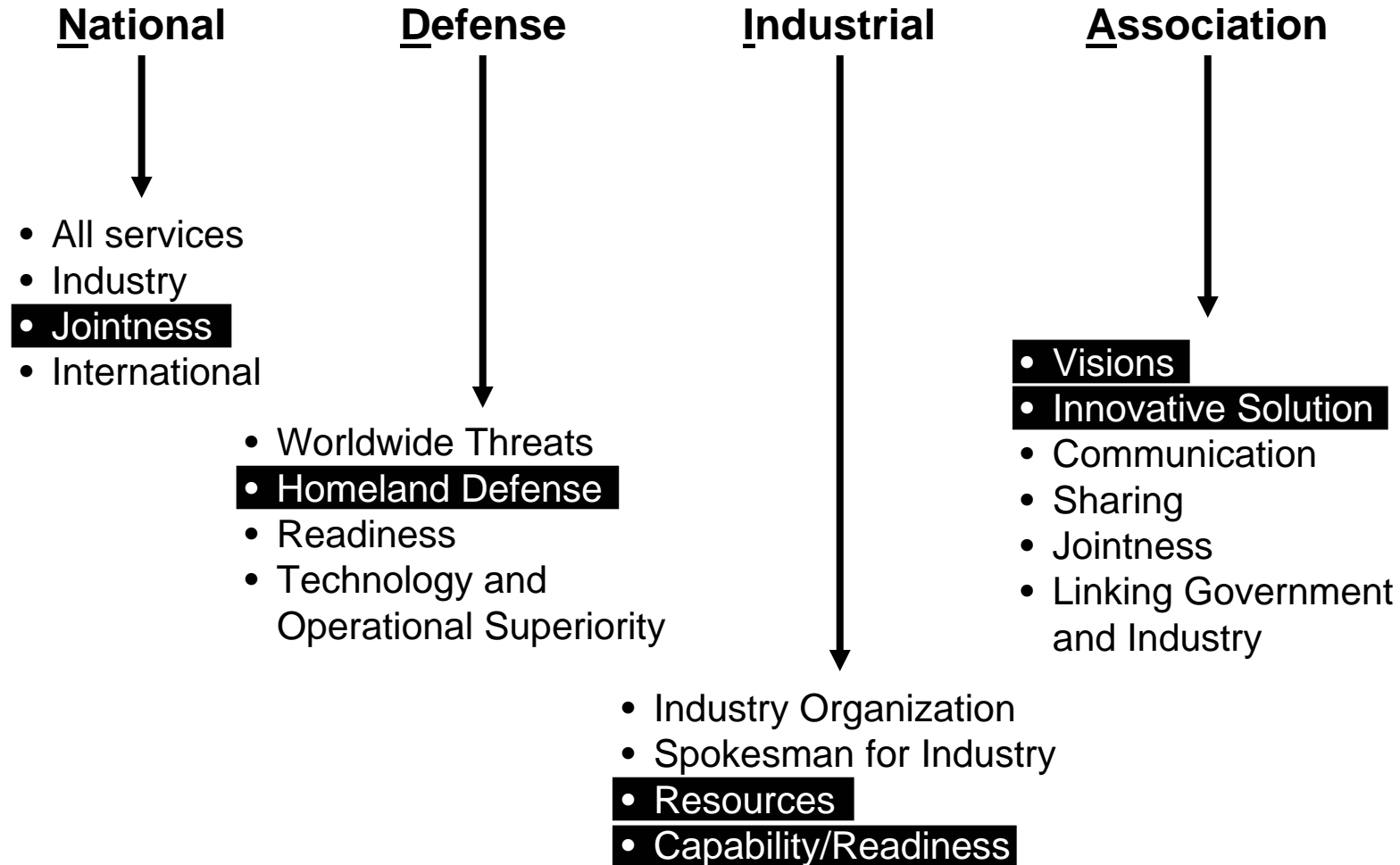
**National Defense Industrial Association
(NDIA)**

Armament Division

2006 Division Status

27-30 May 2006

The Links – Who, What, Why



An Organization Ensuring Strength Through Industry and Technology

NDIA Focus → Responsive to Industry/DoD Community → Ensures Relevance

Addressing Issues Critical to Guns and Ammunition, Missiles and Rockets Systems

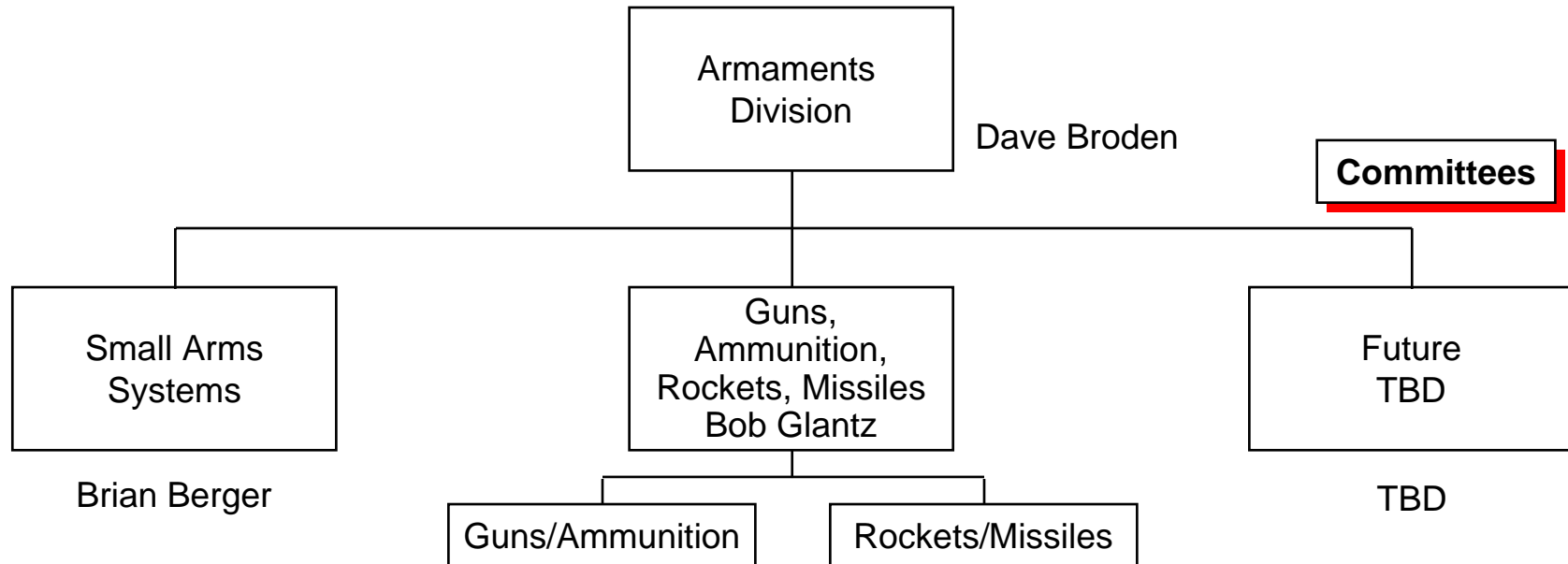
Armament Division Focus

- Expanded participation
- Resource for government and industry
- Linked to key DOD and service strategies
- Capture “lessons learned” → ensure readiness → shape future
- Encouraging leverage of complementary systems
- Effective use of exhibits, demonstrations, and tours

Establishing Vision for 21st Century Relevance

Applying System Synergism to Meet Transformation Goals

Objective: Coordinated Focus and Vision for Armament Systems



Responsive Organization – Ensures Relevance

**Scope – Area of Interest – Responsibility
Definition Clarity**

Expanding Cooperation with Related Sections

Themes, areas
discussed; no
specific action

Symposium Attendance Realizing Growth



- **Gun and Missile Systems**

Attendance---350-500 in last 5 years

- **Small Arms Systems**

Attendance—400-550 in last 5 years

Expanded Participation

New Attendees and repeat attendees

Growth of Exhibits

Continued International participation

- **Interest and Activity Continues to Grow**
 - **Armament Division meets Needs of Government and Industry**

Committee Scope



Gun and Missile Systems

Small Arms Systems

- Individual weapon(s)
- Crew served weapon(s) (e.g., $\leq 40\text{mm}$)
- Lightweight Systems
- Ammunition
 - Enhanced/lightweight
 - “Green”
- Full life cycle management
- Supportability
 - Training
 - Logistics
- Target Acquisition/Fire Control System (TA/FCS)
- Remote Stabilized Turret System
- System Integration
- Networked capabilities
- Non lethal
- Homeland Defense systems

Guns and Ammunition

- Medium caliber systems
- Tank systems
- Mortar systems
- Artillery systems
- Naval gun systems
- Aircraft/helicopter systems
- Precision systems
- Platform Integration
- Manned/robotic applications
- System integration
- TA/FCS
- Supportability
- Life cycle management
- Stabilized Turret System

Missiles and Rockets

- Tactical missiles and rockets
- Shoulder Fired Systems
- Ground launched
- Aircraft/helicopter launched
- Precision Systems
- System Integration
- Manned/robotic applications
- Life cycle management

Synergism



Commonality

Common Enabling Technologies, Modeling/Simulation, Man-Tech

Links to Other Committees

Guns and Ammunition

Rockets and Missiles

Enhancing Our Capability and Evolving for Tomorrow

Addressing the Theme!

- **Joint Capability**
- **Joint Requirements**
- **Readiness Capability**

Applying Common Advanced Technologies and Integrated Systems

- Capability focused complementary integrated systems
- Strengthening Legacy Systems while evolving “new”
- Address key force multipliers
 - Precision
 - Mobility
 - Communication
 - Situation awareness
 - Lethality
- Planning and implementing Spiral Development
- Building on “lessons learned” for future readiness
 - Priority to supporting the Warfighter
- Ensuring responsive industrial base capability
- Attention to life cycle management

Enabling an Integrated Joint Force Capability

Enhancing Our Capability and Evolving for Tomorrow



- Understanding the Need
- Joint Requirement(s)
- Requirements Pull
- Technology Push
- Readiness/Capability/Responsiveness
- Direct Integration
- System Integration Adaptations
- Spiral Development
- Supportability



- Threat Specific Solutions vs. Capability Driven and Adaptable
- Operational Flexibility and Responsiveness
- Industrial Base Readiness
- Spiral Development

Response to Symposium Theme

– Adaptable, Innovative, Visionary, Capability Focused

Vision: Readiness for Today and the Future



Joint Services: Defining and Executing the Change
Industry: Ensuring Technology and Product Availability – Evolution

Asymmetric Threats

Joint Operations

Joint Requirements

Transformation Initiative

Readiness

Industry Responding to
Joint Force Needs

Simultaneously

Changing the Force

Responsiveness – Technology – Capability
and

Maintaining Readiness

of
Existing Forces

Meeting the Needs of Our Joint Ground Forces in the Fight Against Terrorism and Developing the Tools for Future Combat

Address and Focus on the Theme

DoD and Homeland Defense Capabilities

- Joint Force operations and capability
- Response to asymmetric threats
- Adapt systems and technology for operational flexibility — Jointness
 - Responsiveness
- Push technology envelope(s)
- Push integration efficiencies
- Add functional capabilities
- Introduce new systems
- Ensure readiness and capability

**“Lessons Learned” — Readiness/Capability —
Responsive Force — Jointness — Technology Change**

Shape the Future — Enable the Force

Linking NDIA and DoD Realized

- Improved links to DoD and service thrusts and initiatives
- Interest in “after action reports” — “lessons learned” → industry responsiveness → addressing challenges

Symposium Quality and Communication Demonstrated

- Presentation quality improvements and “So What” benefit messages have added value
- Focused interest in systems level presentation vs. technology unless technology offers payoff vision
- Industry adjusted to intellectual property concerns and expanded participation positively
 - Industry worked with vision

Armament Division Success



Guns and Ammunition/Missiles and Rockets

Small Arms Committee

Value Added Has Been Demonstrated

Leadership to Strengthen the Armament Community

Challenge: Applying Technology, Systems for Future Force

Ensuring Readiness . . . Responding to the Challenge Advancing Superior Capability

Symposium Benefits Confirmed

Increasing Interest/Participation

Ensuring Relevance

- Evolve executive committees
 - Integrate relevant organization(s) for future
 - Industry
 - Government
- Improve division charters to ensure relevance/clarity
- Symposium themes
 - Future “vision” focus
 - Emphasize Readiness topics
- Symposium content
 - Focus on “Value Added” for attendees
 - Emerging technology and capability
 - Panels
 - Interactive format
- Attendees
 - Participation is growing resource

Armament Division is Key to Current and Future Force Capability

Armament Division 2006 Highlights



1. Focus on relevant and “value added” topics
2. Solid links to Transformation and future topics
3. “Lessons learned” and “after action reports” input shapes the future
4. Recognition of need to address industrial base readiness — capability — responsiveness---capability today and the future
5. Executive committees focused to objectives
6. National Small Arms Center established/operational
 - 50+ companies
 - Program planning addressing GAPs in-process
 - Procurement activity realizedBudget process moving forward effectively
7. Continued panel discussions focus to key interest topics
8. Recognized forum for business/technology “networking”

2006 Armament Division Highlights



- **Leadership for National Small Arms Consortium and Center Executive Committee**
Research Committee and Subcommittees
- **Participation in Industrial Base Status and Needs Briefings**
Communication of Situations, Changes and Actions
- **Armament Division Executive Committees demonstrated Leadership**
Multiple Meetings
Expanded Participation
Shaping the Future
- **NDIA Armament Division Contacted by Government and Industry for expertise to address specific needs---**
Talent and Experience benefited specific activity

2006 Armament Division Highlights



- **Symposium Attendance Strong and Growing**
- **Symposium Exhibits Effective and Quality Enhanced**
- **Integration of Guns and Ammunition and Rockets and Missiles provides strong system and technology synergism—realizing benefits**
- **Executive Committee activity strengthened and increased**
- **Government and Industry Partnership in Division leadership demonstrated**

Armament Division leadership strength enables strategic focus to address current and future needs

Armament Division Focus Topics



- 1. Ensuring Capability for the Warfighter**
 - Current Systems**
 - Refurbishment/Repair**
 - Expendables**
- 2. Responding to Urgent Technology/System Needs**
 - “Lesson Learned” Responses**
 - Adapting to New Threats and Conditions**
- 3. Maintaining and Adapting the Industrial Base**
 - DOD Organic Base**
 - Industrial Base**
- 4. Establishing and Transitioning New Technology and Systems**
 - Requirement Process Effectiveness**
 - Program Decision Milestones**
 - Schedules/Spiral development and Technology Insertion**
 - Funding**

Armament Division Focus Topics (continued)



5. Understanding Budgets and Funding

Shaping Development Plans leading to New Systems

Maintaining Production to ensure Readiness

6. Transitioning the Workforce

Attention to DOD Technical Manpower Study

Mentoring effectively

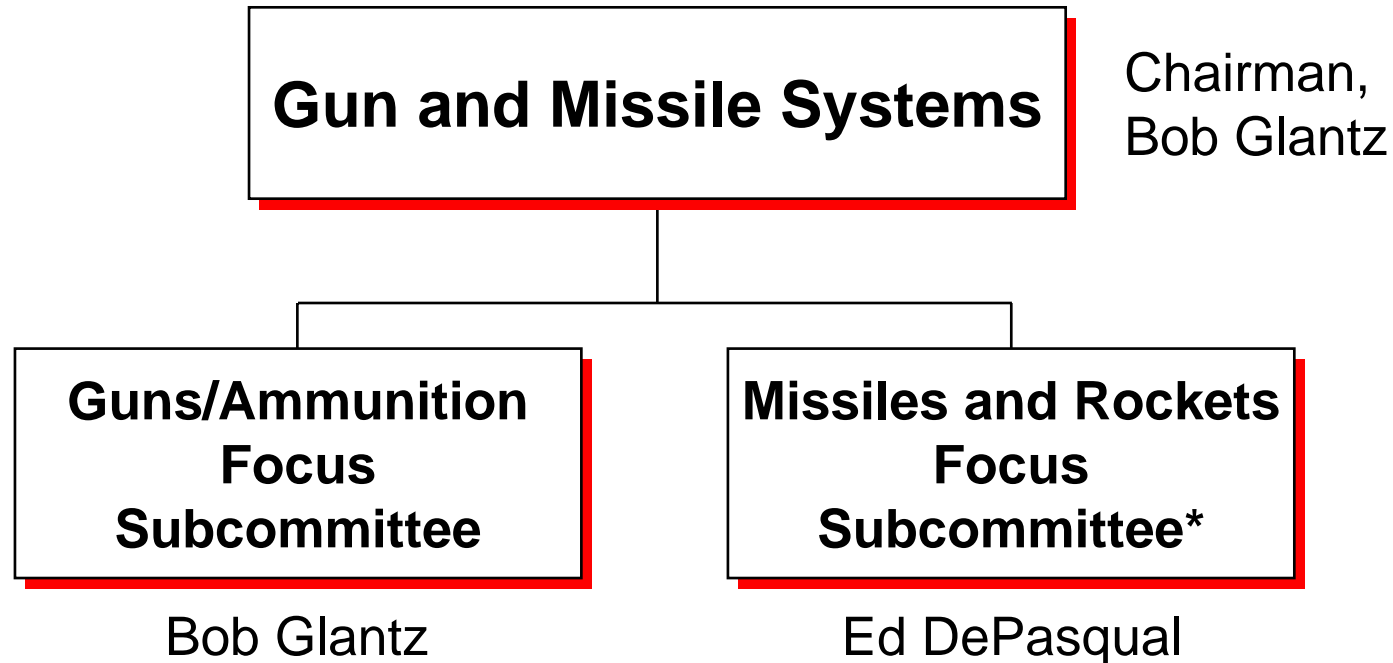
Enabling the entry Workforce

7. Evolving New Technology To Readiness for System Applications

Understanding the Need

“Maintaining Innovation” thru effective Industry and Government investments

8. Maintaining Technical Data Packages (TDP's) and related data to ensure timely and quality production



*May be 1 or 2 subcommittees

Organization Focuses on Commonality and Synergism and Provides Links to the Two Components

Guns, Ammunition, Rockets, Missiles Section/Committee---Gun and Missile Systems



Committees were

Guns and Ammunition

Missiles and Rockets

Committee is

, Gun and Missile Systems

Benefits Realized

1. Commonality NDIA membership
2. Leverages convergency of technology and systems
3. Stimulates discussions — dialogue
4. Symposium attendance efficiency (one vs. two meetings)
5. Brings separate communities together for common purpose

Symposium Interest, Attendance, and Dynamics Enhanced

NDIA International Symposium Links



Objective: International cooperation and integration of symposiums benefiting industry and Department of Defense to encourage partnerships for development, production, and interoperability

Approach:

- Coordination of NDIA Armament Division programs with “Symposium at Shrivenham” The Royal Military College of Science
- Common presentations and panel participants is a strong “open door” resource

European Small Arms and Cannon Symposium

August 2006

2006 Top Defense Issues



- Issue 1: Sustain the Defense Industrial Base
- Issue 2: Sustain Overall Military Readiness While Continuing the Global War on Terrorism and Preparing for Future Defense Transformation
- Issue 3: Improve the Integrity and Responsiveness of the Acquisition Base
- Issue 4: Improve Small Business Opportunities
- Issue 5: Strengthening the National Security Workforce

NDIA Board of Directors Approved Focus

Established by Government Policy Advisory Committee

Look to Web Site for Full Details

These Issues are NDIA Membership Voice to Congress

- National Defense Magazine
 - Emphasis on relevant and timely topics
 - Frequently source of media, DoD, and Congressional reference
- Website
 - Symposium presentations available — attendee access
 - Complementary information
 - Full list of activity
- Top public policy issues — prioritized — addressed to Congress — strengthen the community

NDIA Messages and Content Has Impact

and

Website Used Extensively as Resource

Armament Division 2006 Challenges



- **Ensuring Symposium Presentations offer “Value Added” content**
- **Focusing Symposium Topics to address—”Critical—Relevant—Priority subjects**
- **Evolving Symposium/Exhibit format to enhance communication and understanding ---apply innovation effectively**
- **Integrating Symposium Format enabling Attended input and interaction**
- **Providing individual expertise in response to requests for support**
- **Matching Attendee topic interest to the program structure--- Solicit topics of interest as well as presentations when issuing call for papers.**

Take-Away Thoughts



- NDIA is strong and valuable
 - Resource use enables timely/responsive solutions
- Armament Division is transforming to ensure relevance
- Multi-discipline capability links NDIA divisions
- Listen to “lessons learned” and jointly enable readiness capability
- Commitment to “value added” change
 - Jointness
 - Transformation — future
 - “Lessons learned”
 - Capability driven
 - Readiness — capability — responsiveness
- Attendee participation strengthens organization

**NDIA Membership Shapes the Organization
Through Participation and Use**

NDIA Armament Division Is:

- A relevant voice and forum
- Responsive to DoD community and industry challenges
- A forum for DoD/industry interaction discussion of “lessons learned” and needs
- Supporting national defense through people resources, networking, and symposiums
- Transforming to ensure relevance to changing military, geopolitical environments, technology, and industrial base resources

**The NDIA Community is the
Resource of Choice For Excellence in
National Defense Topics/Communications**



