Small Arms Systems (Joint Services)

National Defense Industrial Association (NDIA)

Armament Division

2005 Division Status

16-19 May 2005
2005 Management Briefing Topics

1. Armament Division Objectives
2. Organization — Leadership
3. Symposium — Effectiveness
4. Charter Updates — Clarity — Current Focus
5. National Small Arms Consortium/Center
6. Pentagon Outreach
7. Manpower Study
8. Defense Legislation Issues
9. Membership Participation
10. The Future Ahead
The Links – Who, What, Why

National
- All services
- Industry
  - Jointness
- International

Defense
- Worldwide Threats
- Homeland Defense
- Readiness
- Technology and Operational Superiority

Industrial
- Industry Organization
- Spokesman for Industry
  - Resources
  - Capability/Readiness

Association
- Visions
- Innovative Solution
- Communication
- Sharing
- Jointness
- Linking Government and Industry

An Organization Ensuring Strength Through Industry and Technology
Bottom Line

**NDIA Focus ➔ Responsive to Industry/DoD Community ➔ Ensures Relevance**

**Addressing Issues Critical to Small Arms Systems**

**Armament Division Focus**
- Expanded participation *encouraged*
- Resource for Government and industry
- Linked to key DOD and service strategies and needs
- 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 Synergisms to Meet Transformation/Future Goals**

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Leadership

Objective: Coordinated Focus and Vision for Armament Systems

Armaments Division

Dave Broden

Committees

Small Arms Systems

Brian Berger

Guns, Ammunition, Rockets, Missiles (GARM Systems)

Guns/Ammunition
Bob Glantz

Rockets/Missiles
Ed DePasqual

Responsive Organization – Ensures Relevance

Scope – Area of Interest – Responsibility Definition Clarity

Expanding Cooperation with Related Sections

Future TBD

TBD

Themes, areas discussed; no specific action
## Committee Scope

### Small Arms Systems
- Individual weapon(s)
- Crew served weapon(s)
  (e.g., ≤ 40mm)
- 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

### GARM Systems

## Common Enabling Technologies, Modeling/Simulation, Man-Tech

## Links to Other Committees
Armament Division Attendance Summary

Integrated Symposium
2004 — 470

Attendance

<table>
<thead>
<tr>
<th>Year</th>
<th>Small Arms</th>
<th>Guns and Ammunition</th>
<th>Missiles and Rockets</th>
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<tr>
<td>2004</td>
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Core Attendance
- ~400+
- 350+
- Solid Growth Trend

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

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

Response to Symposium Theme
- Adaptable, Innovative, Visionary, Capability Focused

- Threat Specific Solutions vs. Capability Driven and Adaptable
- Operational Flexibility and Responsiveness
- Spiral Development
Joint Services: Defining and Executing the Change
Industry: Ensuring Technology and Product Availability – Evolution

Asymmetric Threats

Leveraging Technology to Homeland Defense

Joint Operations

Transformation Initiative

Simultaneously

Changing the Force

Responsiveness – Technology – Capability

Readiness

and

Maintaining Readiness

of

Existing Forces

Industry Responding to Joint Force Needs
Panel Discussions

2003
Small Arms Lethality Topics

2004
“Lessons Learned”
“After Action Report”
Lessons Learned in Operation Iraqi Freedom

2005
“Lessons Learned”
Industries’ Response and Acquisitions
Real Needs
- Understanding the Need
- Capability Readiness
- Capability Response
- Challenges
- Needs
- Planning/Estimabing Future Capability

Panel Discussions Add Meeting Focus/Depth

Attendee Participation “Adds Value”
Translating Lessons Learned into System Requirements

Addressing the Theme!

- Joint Capability
- Joint Requirements
- Readiness Capability

Applying Common Advanced Technologies and Integrated Systems

- Capability focused complementary integrated systems
- Address key force multipliers
  - Precision
  - Mobility
  - Communication
- Planning and implementing Spiral Development
- Building on “lessons learned” for future readiness
- Ensuring responsive industrial base capability
- Attention to life cycle management

Enabling an Integrated Joint Force Capability
Armament Division Success

Guns and Ammunition/Missiles and Rockets

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
Symposium Observations

**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
Ensuring Relevance

• Evolve executive committees
  – Integrate relevant organization(s) for future
    - Industry
    - Government

• Reshape and define division charters to ensure relevance/clarity

• Symposium themes
  – Future “vision” focus
  – Emphasize Readiness topics

• Symposium content
  – Emerging technology and capability
  – Panels
  – Interactive format

• Attendees
  – Participation is growing resource

Armament Division is Key to Current and Future Force Capability
Armament Division 2005 Highlights

1. Focus on relevant 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
5. Executive committees focused to objectives → outreach links to DoD
6. National Small Arms Center established/operational
   – 50+ companies
   – Program planning addressing GAPs in-process
   – Procurements initiated
7. Continued panel discussions focus to key interest topics
8. Recognized forum for business/technology “networking”
9. Leadership in Navy SUW Study
Small Arms Committee Impact

• **Resource** to Government and industry
  – Expanding, adding depth, new capability, teamwork meeting challenges

• Symposium **forum** for **effective** communication, awareness, network

• Strong **link** of **industry** with **services** is plus

• Committee of Small Arms Producers (CSAP)
  – Focused to strengthen and evolve capability
  – Established **Consortium** ➔ over 50 companies participating

• Established **National Small Arms Center**
  – Linking the community
  – Defining opportunities ➔ responding to GAPs
  – Procurements initiated
  – Focus to rapid response to needs

• Committee addresses **responsiveness** to critical Small Arms concerns
Objective: Ensure Armament Division charter responsive to DoD and industry trends and changes

Charter Format: • Armament Division charter sets guidelines — objectives — criteria
  • Appendices address sections/committees
    – Missions
    – Scope/definitions

Status: Committee updates in process
• Small Arms → expand/clarify scope
• Guns and Ammunition
• Rockets and Missiles
• New area — TBD

Combined into Guns, Ammunition, Rockets, and Missile (GARM) Systems
Guns, Ammunition, Rockets, Missiles (GARM) Section/Committee

Committees were
Guns and Ammunition
Missiles and Rockets

Committee is
Guns, Ammunition, Rocket, Missiles (GARM) 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
GARM Committee Structure

Guns, Ammunition, Rockets, and Missile (GARM) Systems

Chairman, Bob Glantz

Guns/Ammunition Focus Subcommittee
Bob Glantz

Missiles and Rockets Focus Subcommittee*
Ed DePasquale

*May be 1 or 2 subcommittees

Organization Focuses on **Commonality** and **Synergism** and Provides **Links** to the Two Components
Keys to GARM Committee Integration Effectiveness

- Communication of commonality/synergism between the two components: **Guns/Ammunition** + **Rockets/Missiles** \(\rightarrow\) Integrated Armament Approach

- Realizing **convergence** of technology and system integration

- Understanding complementary system capability \(\rightarrow\) **operational**

- Integrating industry representatives on executive committee

- Integrating government agency representatives on executive committee

- **User agency** personnel participation \(\rightarrow\) symposiums, executive committee

**Establishing Symposiums and Special Projects Responsive to Attendees and Membership**
Armament System Division Charter Vision

• A common vision for Armament System evolution

• A division responsive to changes and challenges

• Realizing complementary and synergistic capability

• Innovation in armament systems:
  Requirements/need → development → deployment/operation

• Increasing NDIA impact through symposiums, studies, exhibits, etc.

• Re-look at division structure in future to ensure relevance to DoD needs → change is opportunity = ensures responsiveness

• Enabling links to key DoD and service offices
NDIA Pentagon Outreach Program

- NDIA initiative to link NDIA divisions/committees and mission to key DoD offices — ensure partnership and interaction on issues/needs of mutual concern

- Armament Division approach
  - Identify key offices and positions linked to:
    - Guns and Ammunition system
    - Rockets and Missiles system
    - Small Arms systems
  - Establish Armament Division communication plan
    - Through NDIA management and from committees
    - Contact list
    - Briefing package → objectives, mission, challenges, issues, etc.
  - Special Studies suggestions

Communicate Recommendations to Armament Division Leadership
Pentagon Outreach Program Objectives

• Foster **understanding** of NDIA in target offices/positions

• Establish **active relationship** with target offices/positions

• Establish/increase **knowledge** of division events, studies, and other NDIA operations

• Educate target offices that NDIA represents defense industrial base and is **key link** between industry and government

• Inform target offices that **NDIA** is excellent **source** of advice, expertise

• Encourage DoD and services to utilize NDIA management, divisions, committees as a **communication link**

**Partnership — Teamwork — Synergism**
Armament Division Outreach Prior Successes!

1. Established **Joint Service Operating Requirements** for mechanical fuzing for ammunition (JSOR)
   - Ensure increased safety, MIL-STD-1316 compliance, added functions, addressed commonality and affordability

2. Established guidelines and approach for **helicopter gun systems**
   - Defined LW-30 Apache gun system approach

3. **Harrier gun system** study led to selection of GAU-12 gun system for Harrier

4. Interface and meetings of industry with **Joint Ordnance Coordinating Group** (JOCG) addressed “ongoing” technology, system, and production issues and jointly solved problems in common meetings
Armament Division Outreach Prior Successes!

5. **Joint Medium Caliber Gun and Ammunition Master Plan (JMAT)** — establish roadmaps jointly developed by all services and industry to prioritize medium caliber systems

6. **Naval Surface Weapon System Study** — in process — OPNAV N76 sponsored

7. **Joint Non-lethal Weapon System Planning and Workshop** — integrated government, national labs, and industry for multi-year non-lethal plan

8. **Committee of Small Arms Producers (CSAP)** — ongoing to strengthen small arms base

9. **Established National Small Arms Consortium — National Small Arms Technology Center**
Armament Division Committee Actions

Pentagon Outreach Effectiveness Assured Through:

1. Committee/membership identification of key DoD/service target offices

2. Committee identified topics/issues for communication to target offices

3. Effective execution of special studies sponsored by target offices
   - Identified by committee
   - Requested by Pentagon

• Armament Division Committees and Membership are Encouraged to Provide Input to Outreach Focus

• Executive Committee will Maintain Lists and Action Plans
Objective

• To define DoD and industry manpower evolution and establish legislative recommendations to strengthen resource base
  – Baseline:
    - Shape 2006 version of 1958 National Defense Education Act (NDEA)
    - Other topics

Conclusion

• Science and technology workforce requires attention to maintain technology leadership and staffing levels
  – Education
  – Retention
  – Mentoring
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 2004
NDIA Communications

- 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
2005 Top Defense Issues

• Issue 1: Sustaining War on Terrorism, Military Readiness, and Future Defense Transformation

• Issue 2: Support the Defense Industrial Base

• Issue 3: Ethical, Accountable, and Balanced Process Reforms

• Issue 4: Securing the Homeland

• Issue 5: Improve Human Resource Programs

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
Armament Division
Key DoD Initiative Impacts – Five Key Topics

• Readiness
• Jointness
  – JROC process
  – Operations
• Capability Based Force
  – Systems selected
  – Acquisition plans
• System integration emphasis vs. technology
  – FCS
  – FFW
• Manpower Evolution
  – Industry
  – Government

NDIA Must be a Forum for Dialogue and Understanding
to Ensure Responsive and Capable Resources
NDIA Leadership Actions

• Committee of Small Arms Producers (CSAP) Oversight
  – Results: Consortium/National Center → Operational 2005

• Establish focused Pentagon Outreach Program to targeted offices

• Facilitating responsiveness — readiness

• Division and Committee Links — leveraging commonality of resources, technology, systems

• Legislative affair “top issues” → seeking value added legislation

• Support DoD-DDR&E Manpower Resource Study

• Expanded effectiveness of exhibits/displays — “firing demonstration”
Leadership Vision

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