Gun and Missile Systems

National Defense Industrial Association (NDIA)

Armament Division

2006 Division Status

27-30 May 2006
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
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

Armaments Division

Dave Broden

Committees

Small Arms Systems

Brian Berger

Guns, Ammunition, Rockets, Missiles
Bob Glantz

Guns/Ammunition

Rockets/Missiles

Future TBD

TBD

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

**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

### Gun and Missile 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

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

**Links to Other Committees**

### Synergism ➔ Commonality
2006 Symposium

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
- 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

Simultaneously
Changing the Force
Responsiveness – Technology – Capability
and
Maintaining Readiness of
Existing Forces

Readiness

Industry Responding to Joint Force Needs
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
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
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

Small Arms Committee

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
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 realized
      Budget 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 an 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
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
Committee Structure

Gun and Missile Systems

Chairman, Bob Glantz

- Guns/Ammunition Focus Subcommittee
  - Bob Glantz

- Missiles and Rockets Focus Subcommittee*
  - Ed DePasqual

*May be 1 or 2 subcommittees

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