

## **NDIA Joint Armaments Conference**

Technology Development, Transition, and Next Week An Industry Perspective

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#### Situational Awareness – Forces of Change



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- "This budget provides the resources to sustain a military at war. It takes care of our people, rebalances military capabilities, reforms what and how we buy, and supports our troops in the field."
- "I believe the Department should seek increasing competition, use of prototypes, and ensure technology maturity so that our programs are ready for the next phases of development..."
- "We must ensure that <u>requirements are reasonable</u> and technology is adequately mature to allow the department to successfully execute the programs"



- "The gusher has been turned off and will stay off for a good period of time..."
- "Must provide direct support to current operations and the current force through providing technology solutions and <u>rapid acquisition</u>"
- "We've seen how relatively <u>low cost</u>, <u>off-the-shelf technology</u> can have a huge impact on the battlefield"
- "...99% solution over a period of years, or a <u>75% solution</u> over a period of weeks or months."

Must rapidly transition technologies that support current operations!

#### Priorities and Resources - Satisfying Demand



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- Role and responsibilities <u>Voice of the Customer</u>
  - Maintain awareness of market trends, forecasts, and policies
  - Listen and communicate Customer needs, requirements, and timing
  - Identify and develop emerging market opportunities
  - Develop business cases for new products and services
  - Foster strategic relationships with technology partners
  - Prioritize and validate discretionary investment
  - Organizational responsiveness to Customer demand
  - Promote ATK as a supplier of choice



- Discretionary investment <u>Business Sponsor</u>
  - ATK's commitment to the Customer community
  - Integral part of business planning process
  - Limited resources so must select projects wisely
  - Focus IR&D projects that solve Customer problems
  - Business case investment and return

Enhance Product	New Product
Existing Product	New Application

Prioritizing investment to meet demand!

### Responding to the Challenge – *Industrial Capability*



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- Industry must respond with rapid development cycles and more streamlined processes
- No time for science projects, may be fun for scientists but rarely provides meaningful capability to the Warfighter or meaningful revenue to Industry
  - Industry is willing to invest to provide real capability that satisfies a real need
- Seek technology partners and leverage existing technology
  - Scale or adapt to fill capability gaps; do not have to develop
- Affordable and innovation are match made in heaven; must go hand in hand
- Government spending patterns must reflect both the need to equip Warfighters and sustain industrial capability
  - Requires sound investment strategies and partnering
  - Joint R&D reviews that align capability gaps with potential solutions
- Technology advances that help preserve a viable industrial base are becoming as important as the technology in the weapons themselves
- Leverage ManTech Program to reduce manufacturing costs and risks
  - Enables affordable production and transition of new technologies



Focused on rapidly fielding mission-critical technology

#### Closing the Gap – A Few Simple Suggestions



**Validate** 

**Risks** 

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Define Requirement

Assess Technology

Capability

Gap

#### **Risk** – What is to be achieved measured against what is available

- Process begins and ends with the User
  - Needs must be translated to meaningful requirements
- Evaluate the criteria upon which requirements are based
  - Validate maturity of technology and producibility
  - State of the art vs. state of the possible real world context
- Set realistic requirements and expectations so industry can deliver on time and on budget
  - Industry must communicate reality of delivering desired capability
- Requirement \$hift, requirement \$hift, requirement \$hift
  - 75% is good enough...get it to the Warfighter!
  - Mature it later through spiral development with user input
- Solidify technical baseline then move to production
- Safety first but streamline test and evaluation protocol to accelerate material release





Driving through the development cycle

### Providing the Right Response – *Technology in Action*



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- Warfighters adapt quickly to ever-changing threats and challenges
- Technology permeates almost every aspect of preparing Warfighters for war
- Transformation-enabling technology advances were quickly fielded
- Focus on affordable technology that fills Warfighter's capability gaps







# Innovation ... Delivered.

