



Special Session

DoD Independent Research and Development

Introduction

23 April, 2009

Dr. André van Tilborg
Deputy Under Secretary of Defense
(Science & Technology)



Agenda

→ 1:15pm	Introduction	Dr. André van Tilborg, DUSD(S&T)
1:30pm	Military Department Presentations	Dr. Jagadeesh Pamulapati, Deputy Director for Research and Laboratory Management, US Army Mr. Wendell Banks, Director, Plans & Programs, Air Force Research Lab, Wright-Patterson AFB RADM Nevin Carr, Chief of Naval Research
3:00pm	BREAK	
3:15pm	Discussion Topics	Dr. André van Tilborg, DUSD(S&T)
3:30pm	Industry Views	All



Objectives for Today's Session

- Provide brief overviews of DoD IR&D objectives and activities
- Enable direct discussion with DoD IR&D leaders
- Identify DoD IR&D points-of-contact
- Obtain feedback from industry (inputs from DoD participants also welcome)
 - What improvements/adjustments should DoD consider to enhance the value, efficiency, and productivity of the IR&D program?
 - Are there any fundamental changes that merit consideration?

Obtaining Feedback from Industry is the Top Priority.



Overview of DoD IR&D

- **Law**
 - 10 USC 2372, Independent research and development and bid and proposal costs: payments to contractors
- **Regulations**
 - DoD Directive 3204.1, May 10, 1999
 - Federal Acquisition Regulation (FAR) 31.205-18
 - Defense Federal Acquisition Supplement (DFARS) 231.205-18 and 242.771
 - Cost Accounting Standard (CAS) 420
- **Execution**
 - By military departments and agencies, as outlined in the presentations that follow
- **Coordination**
 - DDR&E-chaired Technical Coordination Group (TCG)



Regulations

- **DOD IR&D Program Directive 3204.1, May 10, 1999**
 - Policy and responsibilities for technical and business aspects of IR&D and B&P activities
 - Establishes Technical Coordination Group (TCG) to provide oversight of the IR&D Program and effective communications between industry and the DoD
- **Federal Acquisition Regulation (FAR) 31.205-18.**
 - Contract cost principles and procedures for IR&D and B&P costs
 - Definitions of IR&D and B&P costs, cost allowability, deferred IR&D costs, and cooperative arrangements
 - IR&D and B&P costs allowable as indirect expenses on contracts to the extent that those costs are allocable and reasonable
- **Defense Federal Acquisition Regulation Supplement (DFARS) 231.205-18.**
 - Contract cost principles and procedures for IR&D and B&P costs under defense contracts
 - For major defense contractors, allowable IR&D/B&P costs are limited to those for projects that are of potential interest to DoD
- **Defense Federal Acquisition Regulation Supplement (DFARS) 242.771.**
 - Contract administration functions relating to IR&D and B&P costs
- **Cost Accounting Standard (CAS) 420.**
 - Criteria for the accumulation and allocation of IR&D and B&P costs



10 USC 2372: IR&D is Intended to Encourage ...

- (1) Enabling superior performance of future United States weapon systems and components.**
- (2) Reducing acquisition costs and life-cycle costs of military systems.**
- (3) Strengthening the defense industrial base and the technology base of the United States.**
- (4) Enhancing the industrial competitiveness of the United States.**
- (5) Promoting the development of technologies identified as critical under § 2506 of 10 USC 2372.**
- (6) Increasing the development and promotion of efficient and effective applications of dual-use technologies.**
- (7) Providing efficient and effective technologies for achieving such environmental benefits as improved environmental data gathering, environmental cleanup and restoration, pollution reduction in manufacturing, environmental conservation, and environmentally safe management of facilities.**



In Furtherance of 10 USC 2372, DODD 3204.1 Seeks to ...

- 4.2.1. Create an environment that encourages DoD contractors to expand knowledge in mathematics and science, improve technology in areas of interest to the Department of Defense, and enrich and broaden the spectrum of technology available to the Department of Defense.**
- 4.2.2. Create conditions that allow DoD contractors the freedom to determine the focus of their IR&D programs and especially the freedom to exploit fruitful avenues of research that, in their judgments, may provide the greatest benefits.**
- 4.2.3. Broaden and strengthen the industrial base for the benefit of the U.S. economy and defense, to provide incentives for future defense-oriented R&D, and to improve the responsiveness of industrial capabilities essential to defense needs.**
- 4.2.4. Encourage the commercialization of dual-use technologies to ensure the efficient and effective availability of those technologies for application to future military systems and for the economic benefit of the United States.**



Role of the Technical Coordination Group

- **Established by DoD Directive 3204.1**
- **Provides oversight of the IR&D Program and effective communications between industry and the Department of Defense**
 - **Provide industry the information needed to effectively implement corporate IR&D programs while maintaining independence**
 - **Effectively use IR&D data obtained from industry by the Department of Defense (DTIC IR&D database)**
- **Current TCG membership is DoD only**
- **The TCG seeks to improve in its role as a coordination mechanism for the IR&D community – suggestions welcomed**



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Introduction

Dr. André van Tilborg, DUSD(S&T)

→ 1:30pm

**Military Department
Presentations**

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Director for Research and
Laboratory Management, US Army**

**Mr. Wendell Banks, Director, Plans
& Programs, Air Force Research
Lab, Wright-Patterson AFB**

**RADM Nevin Carr, Chief of Naval
Research**

3:00pm

BREAK

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Discussion Topics

Dr. André van Tilborg, DUSD(S&T)

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DoD

Independent Research and Development

Discussion Topics

Dr. André M. van Tilborg
Deputy Under Secretary of Defense
(Science & Technology)



DoD Attendees Want to Hear Industry Perspectives

- How well is IR&D program meeting objectives of 10 USC 2372?
- What impediments constrain IR&D execution and impact?
- What improvements/adjustments should DoD consider to enhance the value, efficiency, and productivity of the IR&D program?
- Are there fundamental changes that merit consideration?



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Potential Topics for Discussion

- 1. DoD-Industry Communications**
- 2. IR&D Reporting**
- 3. Balance of Near- vs. Far-term Research**
- 4. Return on Investment**
- 5. Technical Coordination Group**
- 6. Improvements, Adjustments, and Fundamental Changes**



DoD-Industry Communications

- DoD and Industry use workshops to facilitate communication between IR&D researchers, government researchers, and acquisition programs. Technical Interchange Meetings (TIMs) afford Industry and DoD the opportunity to meet in structured, yet flexible forums to discuss R&D needs, interests and activities.
- Two most common types of TIMs are “Industry Day” events that have a distinct Industry “technical marketing” thrust and the Air Force/Industry IR&D Workshops with their alternating “technical exchange and review” sessions.
- Questions for Discussion:
 - Are these kinds of activities effective?
 - At what level (DoD, Service, Systems Command, Technical Center, Other?) are these types of activities most effective?
 - How much of this type of activity can Industry support?
 - What could be done to maximize the effectiveness of these workshops and interactions?
 - Are there any additional activities you recommend DoD undertake to increase Industry awareness of DoD near-, medium-, and long-term capability objectives; and the current and planned DoD research and acquisition programs directed at these objectives?



IR&D Reporting

- **Approximately \$2-2.5B of annual DoD IR&D investments.**
- **Technical communication from industry to DoD describing this investment is only partially (40%) captured in the Defense Technical Information Center (DTIC) IR&D database.**
- **DoD staff are required to examine DTIC IR&D database before starting new projects.**
- **With encouragement, can voluntary measures substantially increase reporting?**



Balance of Near- vs. Far-term Research

- **From DODD 3204.1 “4.2.1. Create an environment that encourages DoD contractors to expand knowledge in mathematics and science, improve technology in areas of interest to the Department of Defense, and enrich and broaden the spectrum of technology available to the Department of Defense.”**
- **What can DoD do better to foster such an environment?**



Return on Investment

- **Approximately \$2-2.5B of annual DoD IR&D investments.**
- **How to assess and demonstrate the value of IR&D reimbursement and the impacts of increasing, decreasing, or maintaining the current levels of investment?**



Technical Coordination Group

- **DODD 3204.1 directs DDR&E TCG to do the following:**
 - **1.3.1. Provide industry the information they need to effectively implement their IR&D programs while maintaining their independence to conduct research and development (R&D) activities.**
 - **1.3.2. Effectively use IR&D data obtained from industry by the Department of Defense.**
- **Should Industry be an integral part of the TCG?**
 - **If so, in what way, to what extent, and to what purpose?**
 - **How would industry get the most value from direct TCG participation?**
 - **What expectations from the TCG do you have?**



Improvements, Adjustments, and Fundamental Changes

What improvements, adjustments, and changes could the Department of Defense implement to enhance the value, efficiency, and productivity of the IR&D program?



Additional Feedback is Welcomed

- IR&D is important to DoD
- Post-meeting comments are encouraged
- Please provide your comments to –
dhyman@dtic.mil
- Additional IR&D outreach to industry sessions could be conducted
 - If there is sufficient interest, a one-day meeting could be scheduled in early fall in the Washington, DC area
 - please communicate interest to dhyman@dtic.mil