

Integrated Transition Solutions



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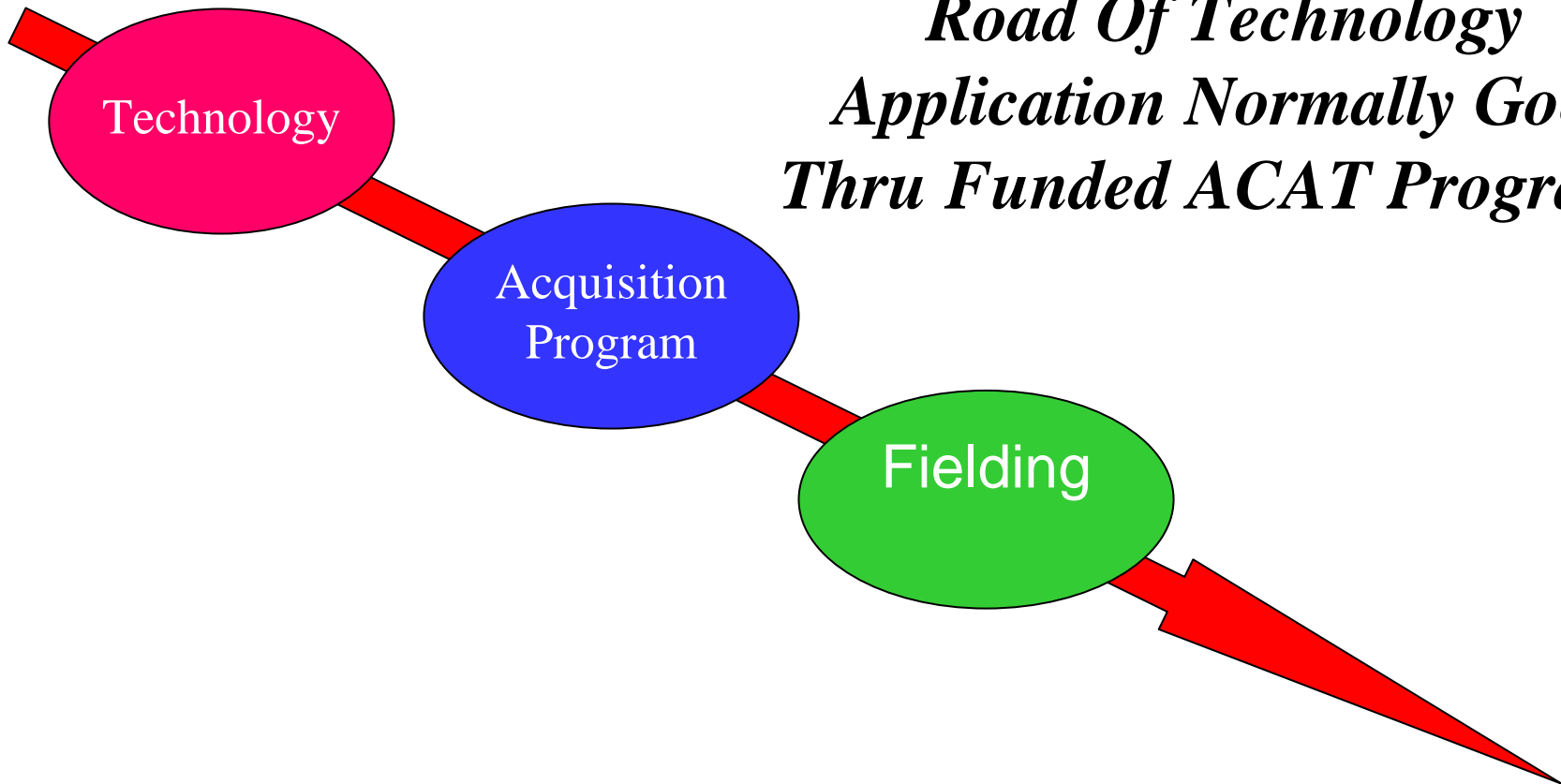
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- Technology Transfer
 - Partnership Between Government & Industry
 - Technology Developed by One Entity Use by the Other
 - Developer Usually Retain Residual Rights
- Technology Transition
 - Products of Government Developed S&T
 - Evaluated for Operational Suitability
 - Provided to a New or Existing Acquisition Program to Obtain Enhanced Capability for the Warfighter



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*Road Of Technology
Application Normally Goes
Thru Funded ACAT Programs*



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Outline

- The Situation
- The Problem
- Some Suggestions
- Some Examples



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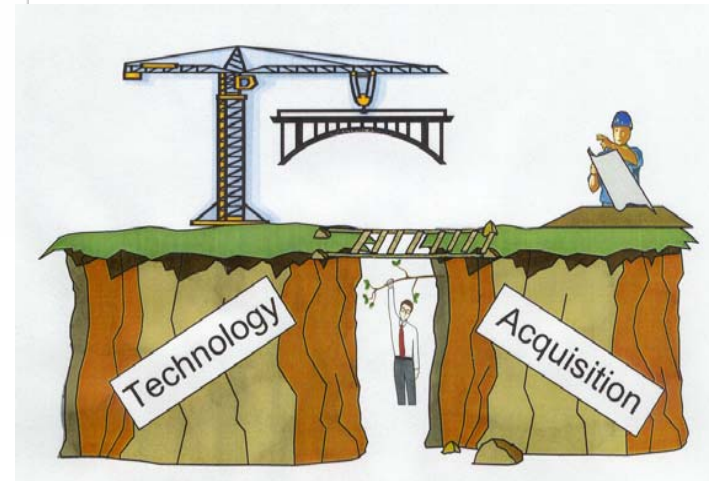
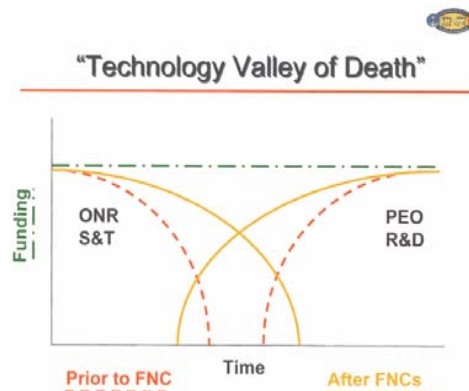
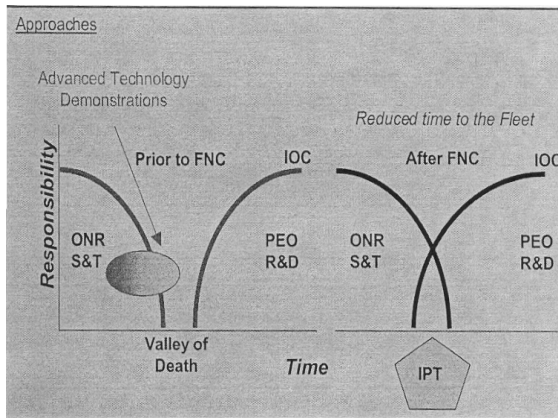
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The Situation

Long-Standing Emphasis
on Rapid Transition of Technology
to the Warfighter

The Situation

Long-Standing Recognition of the Valley of Death





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The Situation

- Large DoD Investment in Technology Development
 - Navy \$1.6B
 - Army \$1.7B
 - USAF \$2.1B
 - DOD Agencies \$5.6B
 - TOTAL \$11.0B*
- But.....Perception is that the ROI is Small
- So.....It Gets A Lot of Outside Attention

* Source: OMB R&D Data, Budget of the U.S. Government FY 2007

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The Situation

The Study-a-Year Program

GAO



DoD IG



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The Situation

Recent Studies

Year	Report	Title
2006	GAO 06-883	Stronger Practices Needed to Improve Technology Transition
2005	GAO 05-480	Management Practices Could Be Strengthened for New Technology Transition Programs
2004	DoDIG D-2004-078	Military Department's Transition of Advanced Technology Programs to Military Applications
2003	DoDIG D-2003-132	Air Force Transition of Advanced Technology to Military Applications
2003	DoDIG D-2003-053	Navy Transition of Advanced Technology to Military Applications
2003	GAO 03-52	Factors Affecting Outcomes of Advanced Concept Demonstrations
2002	DoDIG D-2002-107	Army Transition of Advanced Technology to Military Applications
2001	GAO 01-943	Defense Manufacturing Program, More Joint Projects and Tracking of Results Could Benefit Program
1999	GAO-99-162	Better Management of Technology Can Improve Weapon System Developments
1997	DoDIG 97-120	Advanced Concept Demonstration



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The Situation

Lots of “Non Traditional” Programs

- Advanced Concept Technology Development
- Defense Acquisition Challenge
- Defense Production Act
- Defense Transformation Program
- Foreign Comparative Testing
- Independent Research & Development
- Joint Test & Evaluation
- Coalition Warfare Program
- Dual Use S&T Program
- Quick Reaction Fund
- Future Naval Capability
- NATO Comparative testing
- Small Business Innovative Research
- Small Business Technology Transfer
- Disruptive Technology Opportunity Fund
- Manufacturing Technology
- Joint Warfighting Program
- Technology Transition Initiative
- Joint Capability Technology Demonstration

The Situation

But Even The Best Laid Plans.....





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The Problem

- Many Communities Involved
- Each with Defined Mission
- Each with Own Unique Processes

BUT....

- All Must Work Together to Achieve Transition



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The Problem

Communities

- Capability Needs
- Science & Technology
- Research & Development
- Systems Acquisition
- Sustainment
- Test & Evaluation
- Financial
- Security
- - - -
- Operational

Processes

- JCIDS Process
- Scientific Methodology
- Systems Engineering
- Systems Acquisition
- LCM Process
- T&E Procedures
- PPBES
- IA Process

- DOTMLPF Integration



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The Problem

In Traditional Programs

- These Communities Engage Serially

In Accelerated / Non-Traditional Programs

- The Engagement Becomes Parallel
- New Project Teams Don't Have Time To Learn All The interfaces They Are Required To Manage

The Problem

The Warfighter Needs Total Solutions

A Quick Solution That
Can't Be Supported.....
Doesn't Cut It In The Long Run





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The Problem

- “Knowing / Doing Gap”
- Collectively, We Know What To Do
 - Study Findings / Recommendations
 - DSMC Publications
 - DAWIA Career Field (SPRDE (S&T)) Training
 - Experienced From Past Efforts
- We Just Have a Really Hard Time Achieving the Required Integration to Pull-Off Accelerated Technology Transition



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Some Suggestions

Manage the Program

- Principles of Program Management and Systems Engineering Apply
- Employ Gated Reviews
- Employ Collaborative Tools
 - Technology Roadmaps
 - Technology Transition Agreements



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Some Suggestions

Manage Expectations

- Continually Reinforce what the Program is.....
- And what the program is not.....



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Some Suggestions

Begin With a

“Technology Transition Risk Assessment”

Analyze the Risk to Transition From
Each of the Involved Communities

- Capability Needs
- Science & Technology
- Research & Development
- Systems Acquisition
- Sustainment
- Test & Evaluation
- Financial
- Security
- Operational



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Some Suggestions

Select Mature Technology

- The S&T Portion of Transition Risk Assessment Should be a Technology Readiness Assessment
- Guidelines from DoD Technology Readiness Assessment Deskbook

Some Suggestions

Work the Money

- Keep Funding Sponsors Happy
- Work the POM for:
 - RDT&E
 - Procurement
 - O&M
 - Personnel
 - Facilities
 - Ammunition





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Some Suggestions

Conduct Adequate Testing

- Adequate testing will eventually be needed to
 - Obtain Safety Release
 - Obtain Fielding Decision
- Joint Test and Assessment Activity (JTAA)
Provides focused Test Resources

Some Suggestions

IPTs Are Good!!

- Promote Mutual Understanding
- Vehicle for Collaboration
- Should Include System Prime Contractor
- Measure of Commitment





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Some Suggestions

Individual Performance Goals

- Ensure Transition Goals are in PM's and Transition Manager's Performance Objectives
- This Helps Align Individual's Personal Objectives With Goal of the Project



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Some Suggestions

Maintain Software Integrity

- Software is “Relatively Easy” to Transition as it Requires no Procurement Funds, but.....
- It must be designed to standards of Network or Targeted System (Rapid Prototype Software usually doesn't meet requirements for fielding)



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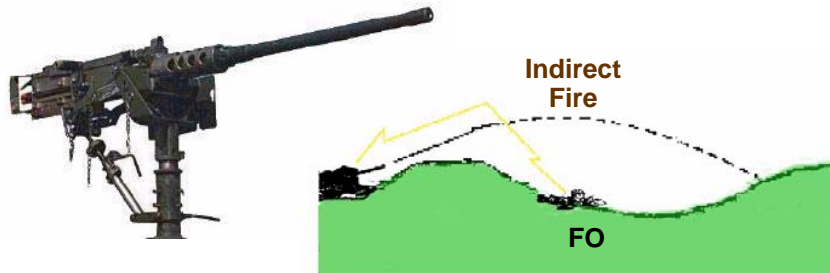
Engage the DOTMLPF Pillars

- Operational Commanders are reluctant to use Materiel lacks accepted doctrine & tactics, that the troops have not trained with, and has questionable supportability
- Use IPTs--Have a Relationship Manager
- If Necessary.....Assist Combat Developer

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Some Examples



Conclusion

-I think we know how to do all the things we need to do
-We often slip into “The Knowing, Doing Gap”



It Ain't Rocket Science, but.....

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But It is a Contact Sport





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