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# Risk Management Team

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Gay Infanti  
Northrop Grumman  
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# Mission Statement

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- **NDIA's Program Management Systems Committee (PMSC) formed a joint Industry/Government working group to explore the integration of risk management with earned value management (May 2002)**
- **Our mission statement:**
  - **Engage the customer and supplier communities in the identification, collection, and sharing of requirements and processes necessary to integrate risk management with EVMS.**

# Risk Management Team

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- **Gay Infanti, Northrop Grumman Information Technology, Team Leader**
- **Ivan Bembers, NGA**
- **Gary Christle, Center for Naval Analysis**
- **John Driessnack, DAU**
- **John Hoglebe and Dr. Steve Van Drew, NAVAIR**
- **Kathy Llewellyn, USN**
- **Debbie Tomsic, OSD**
- **Wilma Uribe, HQ DCMA**
- **Wayne Abba, Dekker Ltd.**
- **Gene Adams, Northrop Grumman Space Technology**
- **Dick Coleman, Northrop Grumman Information Technology**
- **Beverly Solomon, Northrop Grumman Mission Systems**
- **Craig Peterson, Mitre**

# Objectives/Deliverables

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- **Defined processes**
- **Best practices**
- **Lessons learned**
- **Benchmarks**
- **Guidelines**
- **Skill sets**
- **Centers of knowledge or excellence**

# Execution Plan

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- Prepare and sponsor a survey of Government and Industry - final results available June 2004
- Identify, collect and evaluate Government and Industry practices; *follow up on best practices*
- Share results with survey respondents and with PM and RM communities at large, via appropriate venues such as
  - PMI-CPM workshops
  - PM Community of Practice (PM CoP)
  - ASC Industry Workshop
- Develop recommendations for potential future action by NDIA PMSC, Industry, and Government

# Objective - Defined Processes

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- **Survey Results – lots of subjective material yet to be evaluated**
- **Follow-up on techniques/best practices in process**
  - **Process information**
  - **Value judgment – is it a “best practice”?**
- **Sharing among team participants and their contacts, as well as, conference workshops**
- **Process examples:**
  - **Establishment of MR for known risks**
  - **Cost estimates, baselines and/or EACs based on probabilities of success**
  - **Risk-based EACs**

# **Objective – Finding/Sharing Best Practices, Lessons Learned, and Benchmarks**

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- Describe your process/best practice, including start and end criteria.
- What criteria did you use to evaluate this as a best practice?
- Did you do any benchmarking with industry standards, if any, or with peers? Describe.
- Describe your experience with this best practice.
  - How long have you used it?
  - What are your observations?
  - Results?
- Do you collect metrics to validate process performance?
- Have you verified cost or schedule savings?
- How is the process/best practice performing against established performance goals? (What are those goals?)
- If you do not collect metrics or have not demonstrated specific cost/schedule savings, what makes you feel this is a best practice?

# Objective - Guidelines

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- **Risk Management Guide for DoD Acquisition**
  - [http://www.dau.mil/pubs/gdbks/risk\\_management.asp](http://www.dau.mil/pubs/gdbks/risk_management.asp)
  - Created by DAU, the USD(AT&L), and acquisition management organizations throughout DoD
  - Edition 5, Version 2.0 reflects the DoD 5000 series changes as of May 2003

# Centers of Knowledge/Centers of Excellence

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- Acquisition Knowledge Sharing System (AKSS)
- Program Management Center of Excellence (PM CoP)
- Risk Management CoP
- SCEA
- Defense Acquisition University
- INCOSE
- SEI

# Survey Results: Demographics

<b>Years EVMS experience</b>	<b>47% &gt;10, 13% 0-2</b>
<b>Years RM experience</b>	<b>41% &gt;10, 16% 0-2</b>
<b>Employed by</b>	<b>78% Industry, 4% Gov't, 18% Consultant</b>
<b>Industry Employees Primary Marketplace</b>	<b>87% Government, 13% Commercial</b>
<b>Environment</b>	<b>46% DoD, 14% Fed'l/Non-DoD, 39% Non-Fed'l</b>
<b>Program/project size</b>	<b>45% multiple, 16% &gt;\$1B, 7% &gt;\$500M, 14% 81M - \$500M, 16% &lt;\$80M</b>
<b>Primary job function</b>	<b>36% EV Specialist, 18% PM, 10% Sr/Exec Mgmt, 8% Bus Mgmt, 8% Consultant, 6% SE/Quality, 13% Risk Specialist</b>

# Survey Results: Process Ownership

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	Risk Management	EV Management
Formal Process Ownership	74% PM or Systems Engr.	26% PM or Systems Engr.
Process Champion/Sponsor	62% PM or Systems Engr.	30% PM or Systems Engr.

# Survey Results: RM Process

<b>Primary areas addressed</b>	<b>97% Technical</b> <b>93% Schedule</b> <b>78% Cost Estimate</b> <b>65% Funding/Budget</b>	<b>39% Political</b>
<b>Methods used to quantify risk</b>	<b>85% Subjective Assessment</b> <b>59%/64% Probabilistic Cost or Schedule</b> <b>40% Simulations</b>	
<b>Percentage of issues/problems predicted by RM process</b>	<b>Only 30% of respondents predicted 50% or better</b>	
<b>Risk management/tracking method</b>	<b>79% RM Plan</b> <b>74% Schedule</b> <b>71% Regular Meetings</b> <b>61% Tracking S/W</b> <b>59% MR</b> <b>59% Risk-Based EACs</b> <b>54% Variance Analysis</b>	<b>37% by WBS</b> <b>35% Incorporate into B/L</b> <b>34% Project Budget</b> <b>12% UDB</b>
<b>Is there is integrity in the info derived from RM process?</b>	<b>68% - Agree</b> <b>17% - Disagree</b>	

# Survey Results: IBR Process

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<b>IBR has improved integration of RM and EVMS</b>	<b>35% Agree 29% Disagree</b>
<b>IBR identifies additional program risks</b>	<b>38% Agree 22% Disagree</b>
<b>Did IBR result in update to RM Plan for newly ID'd risk?</b>	<b>38% Yes 22% No</b>

# Survey Results: Process Integration

<b>Risks selected for integration into EVMS</b>	<b>39% High/medium risks 26% none</b>
<b>Are CV and SV reviewed in conjunction with or included in RM Plan?</b>	<b>Yes – 62%</b>
<b>Degree of effectiveness of process integration</b>	<b>34% – Effectively 43% Poorly</b>
<b>There is value integrating these two processes</b>	<b>69% - Agree 10% Disagree</b>

# Survey Results: Barriers to Integration

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Potential Barriers	Agree	Disagree
Contract Incentives/Disincentives	37%	46%
Internal/external Management Culture	67%	18%
Emotional	60%	20%
Technology	38%	44%
Organizational	70%	18%
Personal Instability	31%	45%
Knowledge/skills	70%	13%
Lack of EVM or RM Process Maturity	71%	21%
Lack of Management Commitment	62%	21%
Program Instability	54%	27%

# Preliminary Team Recommendations

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- Add language addressing integration of risk management with other PM processes, especially EVM, in next *Risk Management Guide* update
- Insert language into ANSI/EIA 748 that more specifically addresses risk management and its use within an EVMS
- Undertake a pilot program (joint) to explore the use of multiple baselines, based on probabilities of success, to manage the program
- Continue to share best practices, lessons learned, and benefits of process integration
- Explore the flip side of risk, i.e., opportunities
- Incorporate program management process integration into DAU and other courseware

# Future Direction

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- **Publish survey results and best practices gathered by team on PM CoP**
- **Provide links from PM CoP to other sources of knowledge/expertise**
- **Risk Management Team will develop and propose recommendations to NDIA PMSC for next steps, e.g.,**
  - **Establish follow-on team(s) to work specific actions/recommendations accepted by PMSC**
  - **Explore the flip side of risk, i.e., opportunities**
  - **Develop/propose policy, guidance, etc. for use of RM to manage programs in an integrated fashion**
- **Formulate one or more new teams to address recommendations that NDIA PMSC wants to pursue**