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RISK MANAGEMENT PROCESS AND RISK RECON

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ABSTRACT

Program Executive Office (PEO) Ground Combat Systems (GCS) initiated a Green Belt project in 2007 to develop a risk management process. The Integrated Product Team (IPT) built on Defense Acquisition University (DAU) and Department of Defense (DoD) risk management guidance to create a process for risk analysis, mitigation, and rules for Risk Review Board approval. To automate this process, the IPT eventually created an Army owned, customizable tool (Risk Recon) that matched the PEO GCS process. Risk Recon is used to track risks throughout the acquisition life-cycle.

Changing the culture of the PEO has been the most significant challenge. Training and follow-up of risk progress is required to keep the process from becoming stagnant. Partnership with the Original Equipment Manufacturer (OEMs)s is an integral part of all programs and a balance is needed between how the PEO and its OEMs perform risk management and communicate those risks. The software requirements continue to increase. Conflicting requirements and growing technical and developmental needs are addressed by the IPT.

INTRODUCTION

PEO GCS initiated a Green Belt project in 2007 to reduce the variation in how the PEO Program Management Offices conducted risk management. A risk management process is essential for any program so that decision makers can have insight into programmatic risks and put effective mitigation plans into place to prevent issues from occurring. Issues can affect the overall program plan for cost, schedule and performance and jeopardize the program meeting its objectives. A common process and tool provides leadership with the opportunity to look across programs. This helps to prevent duplication of effort/resources on common risks.

HISTORY

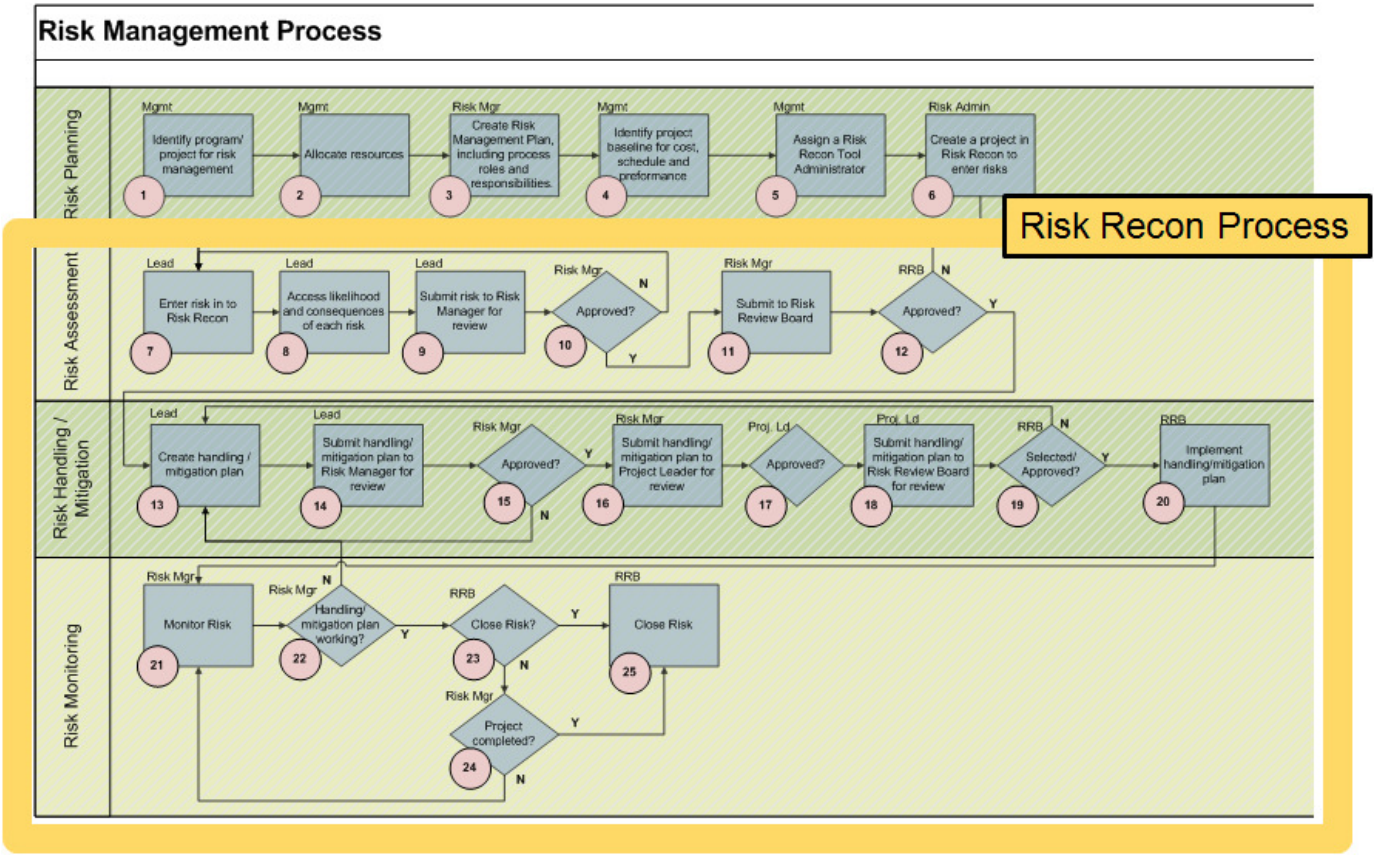
An IPT was formed in PEO GCS that included representatives from several different Program Management Offices (PMOs) to identify the best practices of risk management within PEO GCS and to identify the needs within the PMOs. The Green Belt IPT built on DAU and DoD risk management guidance to create a process and templates for risk analysis, mitigation, and rules for Risk Review Board approval. To automate this process, the IPT reviewed several COTS tools and eventually contracted with Portal Dynamics to create an Army owned, customizable tool (Risk Recon) that matched the PEO GCS process. Risk Recon is used to track risks throughout the acquisition life-cycle. Today Risk Recon is used by many groups outside of PEO GCS including the PEO Combat Support and Combat Service Support (CS/CSS) Mine Resistant Ambush Protected (MRAP) program, the Army's Tank Automotive Research and Development and Engineering Center (TARDEC) and the United Stated Marine Corps for MRAP.

RISK PROCESS

The risk management process is broken up into four phases: planning, assessment, mitigation and monitoring. The planning phase involves defining objectives, identifying resources for the process and creation of the Risk Management Plan (RMP) for each project. This part of the process is outside of the Risk Recon tool though guidance is

provided under the "Help" section in Risk Recon. The assessment phase includes identifying and assessing the risk. To create a risk, the user enters information for a risk into the database. They then assess the original and current consequence and likelihoods for the risk using the standard DoD 5x5 risk matrix and Risk Recon Tip Sheet for objective risk rating guidance on what each level of consequence and likelihood should consist of (see attachment 1.The risk is then submitted through an automated approval process that involves review by the risk manager, and oversight and concurrence from the Risk Review Board (RRB) before it is baselined.

The mitigation phase is similar to the assessment phase in that it involves planning and assessing the best way to reduce the risks. Risk monitoring is the phase in which the Risk Manager tracks the risks and mitigation plans and closely follows them through reviews and report outs to make sure that they are progressing as expected.



RISK RECON

Risk Recon is a tool and database used to enter and track risks associated with projects/programs. Designed to be used by any groups performing risk management, the tool enables standardized capture of risk data in a collaborative environment with security features that maintain confidentiality of information, while ensuring that all program and project teams use a consistent risk management process.

Some of the benefits of using Risk Recon for the government are its ease to use (the training of personnel takes approximately 1 hour), imbedded reporting with several built-in reporting options including an Executive Summary and export to an Excel spread sheet, an integrated process flow in the software as well as a notification system for when new risks are created, and an attachment function so that the team can attach briefs, data etc to the risk to eliminate duplication of effort. Since Risk Recon is owned by the US Army, there is no program cost for using this database.

SUCCESSFUL RISK MANAGEMENT

In order for any risk process or effort to succeed, strong risk management support (including a policy letter to make it mandatory for the program) is imperative. Without support, monitoring and use by upper management, a risk process will fail and cease to be a useful tool. The tool and process

must be easy to use and be flexible enough to accommodate both small and large scale programs, allowing senior management insight into the risks of a program and a stake in the results of risk management.

FUTURE

The future of Risk Recon will have several new benefits. These include several reporting features including dynamic reporting to allow each individual to customize how they want their reports to look and historical chart comparisons. Program summary risk ranking and pie charts, as well as historical comparisons are also planned in the series of upgrades over the next year. Additional items that will eventually be incorporated into Risk Recon are integration to the master schedule, WBS integration and integration with other SE toolsets.

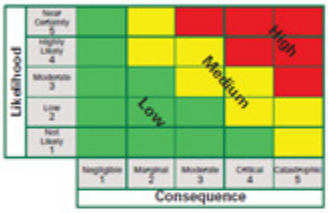
REFERENCES

[1 Risk Management Guide for DoD Acquisition – August 2006, Department of Defense]

[2 DAU Course – CLM 017 – Risk Management]

Attachment 1

Risk Recon Risk Management Tip Sheet



"Knowing our risks provides opportunities to manage and improve our chances of success."
—Roger Vanscoy

Consequence Table

Rating/Description	Performance	Cost	Schedule
5 (Catastrophic) - Jeopardizes an exit criterion of current acquisition phase	Unacceptable; No viable alternatives exist	Program budget impacted by 10% or more; Program success jeopardized	Key events or milestones delayed by more than one month
4 (Critical) Potentially fails Key Performance Parameter (KPP)	Unacceptable; Significant changes required	Program budget impacted by 5%-10%. Significant portion of program management reserves must be used to implement workarounds	Critical path activities 2 weeks late; Workarounds would not meet milestones, Program success in doubt
3 (Moderate) Shorts a critical mission need but expect no breech of KPP threshold requirements	Below goal; Moderate changes required; Alternatives would provide acceptable system performance; Limited impact on program success	Budget impacted by 1%-5%; Limited impact on program success; Does not require significant use of program cost and or schedule reserves	Non-critical path activities one month late; Workarounds would avoid impact on key and non-key milestones; Minor impact on program success; Development schedule goals exceeded by 1%-5%
2 (Marginal) Requires the commitment of a minor portion of the program cost, schedule or performance reserve	Below goal but within acceptable limits; No changes required; Acceptable alternatives exist; Minor impact on program success	Budget impacted by 1% or less; Minor impact on program success; Minor commitment of program management reserves (schedule, cost) used for workarounds	Non-critical path activities late; Workarounds would avoid impact on key and non-key milestones; Minor impact on program success; Development schedule goals exceeded by 1%-5%
1 (Negligible) Remedy will require minor cost, schedule and/or performance trades	Requires minor performance trades within the threshold - objective range; No impact on program success	Budget not dependent on the issue; No impact on program success, Cost increase can be managed within program plan	Schedule not dependent on issue; No impact on program success; Schedule adjustments managed within program plan

Terms	Definitions
Risk	A measure of future uncertainties in achieving program performance goals and objectives within defined cost, schedule and performance constraints. Risk addresses the *potential* variation in the planned approach and suspected outcome.
Issue	An event that has already occurred or has 100% likelihood of occurring.
Likelihood	Probability that the risk will occur (based on ratings 1-5).
Consequence	Effect or impact on the program if risk becomes an issue (based on ratings 1-5).

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Risk Recon Risk Management Tip Sheet

Risk Recon Website:
https://peoportalap.tacom.army.mil/riskmgmt
POCs: **Lisa.Graf@us.army.mil**
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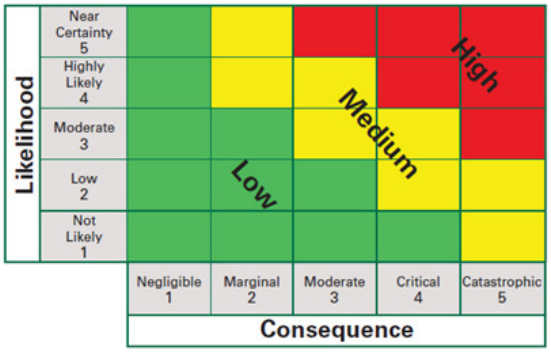

Risk Information Sheet

Description of Risk Condition	State the risk in one clear and concise sentence, creating an "IF...THEN...MAY" statement or a brief description.
Context	Details of the risk - the Who, What, Where, When, Why, How and How Much of the risk.
Consequence	What are the impacts to the program in terms of Cost, Schedule, Performance or Other if this risk becomes an issue.
Mitigation Plan	This is the detailed mitigation plan - what will be done to mitigate the risk. List steps with due dates, owners and impact to the risk.
CloseOut Rationale	List the agreed upon details for closing this risk - who agreed to close it at what meeting, date and for what reasons.

Likelihood - Probability Levels and Indicators

5 (Near Certainty) - Assume & anticipate occurrence (>90%) Approach and processes cannot mitigate risk; Immature technology; System very complex
4 (Highly Likely) - Very high chance of occurrence (>65% to 90%) Approach and processes not well documented; Technology available but not validated
3 (Moderate) - Significant chance of occurrence (> 40% to 65%) Approach and processes are partially documented; Un-validated technology has been shown to be feasible by analogy, test, or analysis
2 (Low Likelihood) - Occurrence possible but less than likely (10% to 40%) Current approach and processes understood & documented; most technology has been validated
1 (Not Likely) - Occurrence is possible but very unlikely (<10%) Approach and processes are well understood and documented

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Risk Management Process and Risk Recon