

Slide 1 Introduction

Business Risk Management

The Wave of the Future

Presentation to the ASMC

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Slide 2 Agenda

- Consequences of Unmitigated Risk
- Risk Management Concepts
- Risk Management Approach
- NAVFAC Pilot Program
- Risk Management Opportunities

Slide 3 Consequences Of Unmitigated Risks—USS Greeneville

Using arrows, the figure below illustrates that procedures (controls) in place lead to unmitigated risks (procedures not followed) and onto the consequences: reputation risk, financial risk, and environmental risk.

Speaker Notes:

Background: On 9 February 2001, the USS GREENEVILLE collided with the Japanese Motor Vessel EHIME MARU approximately nine miles south of Oahu, Hawaii. The GREENEVILLE was performing an emergency main ballast tank blow demonstration for 16 embarked civilians at the time. The collision resulted in the loss of nine EHIME MARU crew members and the sinking of the ship itself. The court of inquiry investigation identified two causes: an inadequate acoustic and visual search was conducted by the ship in preparation for surfacing and the ship's watch team failed to work together and pass information to each other about the surface contact picture. "This tragic accident could and should have been avoided by simply following existing Navy standards and procedures in bringing submarines to the surface."

Inadequate Control: Failure to follow proper procedures

Types of Risk: Reputation, Financial, Environmental

Result: Loss of lives, damaged relations with Japan, loss of Japanese fishing vessel

Slide 4 Consequences of Unmitigated Risks—V-22 Osprey

Using arrows, the figure below illustrates that procedures (controls) in place lead to unmitigated risks (procedures not followed) and onto the consequences: technology risk, financial risk, strategic risk, and reputation risk.

Speaker Notes:

Background: *60 Minutes* reported in January 2001 the commander of the Osprey squadron (Marine Tilt-Rotor Training Squadron-204) had told his men to falsify reports of the airplane's readiness for service. This news story was on the heels of two crashes of MV-22 Osprey aircraft – one in April 2000, which resulted in the deaths of 19 Marines, and one in December 2000, which resulted in the deaths of 4 Marines. The December crash led the Marine Corps to ground all Ospreys — the third time the aircraft was grounded since the April crash. *CBS* later reported that the General Accounting Office reported in February that the Marine Corps skipped some tests of the aircraft to save money and meet deadlines.

Inadequate Control: Failure to follow procedures

Types of Risk: Technology, Financial, Strategic, Reputation

Result: Loss of lives, grounding of fleet, congressional attention

Slide 5 Consequences of Unmitigated Risks— USS Cole

Using arrows, the figure below illustrates that procedures (controls) in place lead to unmitigated risks (procedures inadequate or not followed) and onto the consequences: operational risk, financial risk, and environmental risk.

Speaker Notes:

Background: On October 12, 2000, a suicide boat loaded with explosives rammed into the side of the USS Cole as she was refueling in Aden, Yemen, killing 17 sailors and injuring 39 others. After the JAGMAN investigation was completed, the SECDEF reported that while the commander of the ship didn't take every specific step that its force protection plan called for, the reviewers of the investigation, including the chief of Naval Operations and the secretary of the Navy, concluded that under the circumstances, the full implementation of the force protection plan probably could not have prevented the attack.

The Navy leadership also noted that the investigation underscored shortcomings throughout the network of commands, departments and agencies that provide support to U.S. Navy ships operating in foreign waters around the globe.

Inadequate Control: Failure to follow procedures; controls not in place

Types of Risk: Environmental, Operational, Financial

Result: Loss of lives, damaged ship

Slide 6 Consequences of Unmitigated Risks—Centrally Billed Accounts

Using arrows, the figure below illustrates that procedures (controls) in place lead to unmitigated risks (procedures inadequate for new requirement) and onto the consequences: technology risk, operational risk, financial risk, and reputation risk.

Speaker Notes:

Background: The Grassley amendment to the 1996 Defense Authorization Act instituted the requirement for DoD to verify that an obligation had been established before a payment could be made (for payments > \$500K). This control was intended to reduce the growing problem of unmatched disbursements. However, because of existing controls in Navy vendor pay systems, numerous invoices were being suspended. The effect of the control was that NO invoices were getting paid.

At one point in September 1999, the Navy had:

- 8 months of invoices (over \$180M) suspended in STARS-One Pay.
- Average payment time for invoices was 155 days.
- Prompt Payment Act interest for FY 1999 was \$3.7M.
- After attempting a couple of “band-aid” fixes, DFAS agreed to temporarily “waive prevalidation” (for invoices < \$500) to get the backlog through the system.
- Control: Controls in place not adequate for new requirement

Types of Risk: Operational, Technology, Financial

Result: noncompliance with law, financial fee

Slide 7 Consequences of Unmitigated Risks—Reasons for Control

The following figure illustrates how unmitigated risks spread across all organizations regardless of whether they are government agencies or companies in the private sector, and how these risks lead to public demand for improved control. The following organizations are shown:

Department of the Navy Problem Disbursements: Risks are Operational, Financial

Department of the Navy “Lost” Boats and Engines: Risks are Financial, Operational, Technology

Department of Defense Bombing Accident in Kuwait: Risks are Reputation, Financial, Environmental

NASA Space Shuttle Challenger Explosion: Risks are Technology

Department of the Navy Naval Academy Cheating Scandal: Risks are Reputation

- Department of the Navy Tailhook Scandal: Risks are Reputation
- Ford/Bridgestone/ Firestone faulty tires/Ford Explorer rollovers: Risks are Technology, Financial, Reputation

Speaker Notes:

Unmitigated risks spread across all organizations, government and private sector.

Additional examples:

- Exxon Valdez oil spill: Risks are Environmental, Financial, Reputation
- Three-Mile Island nuclear reactor meltdown: Risks are Environmental, Operational, Reputation

Slide 8 Risk Management Concepts—The Risk Continuum
Danger vs. Opportunity

Speaker Notes:

There are 2 sides of the risk continuum:

- DANGER: risk that we want to avoid because the impact is negative (examples in previous slides)
- OPPORTUNITY: risk that we want to take because, if we don't, we may not get to where we want to go.

Examples include landing on the moon and privatization initiatives—contracting with the private sector for it to do what it is an expert at doing

KEY: LEVERAGE BOTH SIDES

Slide 9 Risk Management Concepts—What Is Business Risk?

“Any event or occurrence that could jeopardize the achievement of the organization’s mission.”

Speaker Notes:

KEY: Risk is that which IMPEDES the ability to accomplish the MISSION.

Slide 10 Risk Management Concepts—Types Of Business Risk

The following thought clouds show the 7 different types of business risk:

1. Operational Risk: Operational policies/ procedures/instructions do not sufficiently control business to allow achievement of mission
Human Resources Risk: Management and staff not sufficient to meet needs and mission of organization
3. Environmental Risk: Operations or activities adversely affecting the environment
4. Reputation Risk: Negative public opinion
Technology Risk: Systems and technology tools, in design and operation, do not allow achievement of mission
Strategic Risk: Mission/strategic plan does not support overall DON objectives
7. Financial Risk: Loss of assets or available operating or capital budget.

Speaker Notes:

These are the most prevalent types of business risk.

KEY: All of these risks are INTERRELATED.

Slide 11 Risk Management Concepts—A Common Framework

The figure below shows a three dimensional pyramid with one of the 4 following concepts written on each of the 4 sides: objectives, alignment, controls, and risks.

Though risk thinking can be viewed as management ‘common sense,’ it is not often common management practice. Therefore, a framework and methodology creates a systematic approach to identifying business risk and controls to manage or mitigate those risks.

Speaker Notes:

KEY is a STRUCTURED APPROACH. This will increase the potential for success.

Slide 12 Risk Management Approach—Basic Risk Management Strategy

The figure below shows Environmental Assessment flowing into cyclical process composed of 3 concepts Risk Assessment, Control Assessment, and External Validation.

The four components of the basic risk management strategy are describe as follows:

- A. Environmental Assessment: Review strategic perspective and internal and external environments.
- B. Risk Assessment: Identify, assess, monitor, and report on risks impacting the organization and mission.
- C. Control Assessment: Identify, assess, improve, monitor, educate, and report on controls to mitigate risks to the organization and mission.
- D. External Validation: Obtain external validation. Implement recommended improvements risks.

Speaker Notes:

Phased methodology to Business Risk Management.

Allows us to look at problems and opportunities (Risk) in a systematic way.

Expands the scope of the review to broader categories of risk beyond financial.

Slide 13 Management Control Program (MCP) Assessment Framework, Expectations By Component
 The table below shows the Management Control Program Assessment Framework broken down by four components: progressive environment assessment, business risk assessment, management controls assessment, and external validation. The table has 4 columns and 3 rows. Each column applies to one of the four components. Under each component column heading, the next row gives a brief description of the component and the final row details the self-assessment process for each component.

Progressive Environment Assessment	Business Risk Assessment	Management Controls (MCs) Assessment	External Validation
Self-Assessment of Business Environment	Self-Assessment of Risks	Self-Assessment of Control Activities	Audit Testing
1. Strategic Perspective: a) Mission, vision b) Values, philosophy 2. Internal Environment: a) Culture, attitudes b) Organization structure c) Authority d) Human capital management e) Strengths, weaknesses (e.g., resources and systems) f) Assessable units g) Risk Categories 3. External Environment: a) Customers, competitors b) Relationship with key stakeholders c) Business partnering d) Business opportunities	1. Risk Identification: a) Identify risks b) Analyze c) Rate risks (high/low) 2. Risk Mitigation: a) Develop strategies for managing risks b) Implement Strategies 3. Risk Monitoring: a) Continuously track risk mitigation efforts b) Monitor business environment changes and impact on risks 4. Risk Reporting: a) Determine and formalize reporting levels b) Communicate internally high risk issues 5. Internal Certification/Validation	1. Controls Identification: a) Identify controls b) Rate (assess) controls (Vital/Non-vital) 2. Controls Improvement: a) Identify deficiencies in vital controls b) Develop correction plans c) Implement action plans 3. Controls Monitoring: a) Measure performance b) Resolve audit findings 4. Education and Training 5. Controls Reporting: a) Determine and formalize reporting levels b) Communicate high risk issues (internal/external) 6. Internal Certification/Validation	1. Validation (based on a two-prong approach): a) Validate the results of risk and controls self-assessments b) Assess corrective measures ---OR--- c) Test vital controls 2. Recommendations: a) Improvements in the self-assessment processes b) Corrective actions if deficiencies still exist 3. Implementation of Recommendations

Speaker Notes:

New Framework for assessing the Management Control Program.

This framework represents the EXPECTATIONS. What is my organization expected to do in managing its risk?

KEY is that it is a SELF-ASSESSMENT process, with the end result being an external validation. In order to assess whether your organization has met these expectations, the Risk Management Approach was developed (next slide).

Slide 14 Risk Management Approach

The table below has 5 columns and 8 rows. Each column header represents one of the phases of the Risk Management Approach. Text below each column header provides the action steps taken during that particular phase.

Preliminary Assessment	Progressive Environment Assessment	Business Risk Assessment	Management Controls (MCs) Assessment	External Validation
Identification of Program Sponsor-Leadership	Education on the Progressive Environment Assessment	Identification of Business Units and Program Participants	Selection of Risk Areas	Selection of Control Areas
Education on the Risk Management Approach	Facilitated Sessions	Education on Concepts of Business Risk	Education of the Nature of Internal Controls	Development of Tests Matched to Controls
MCP Survey	Business Process Alignment	Identification of Command Mission and Objectives	Facilitated Control Sessions with Command	Control Testing
Identification of MCP Level	Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis	Facilitated Risk Identification Sessions with Leadership	Facilitated Control Sessions with Command Leaders	Evaluation of Results
Development of Gap Analysis	Strategic Plan	Risk Map and Impact Map	Control Profile	Report on Controls and Statement of Assurance
Corrective Action Plan		Communication of the Risk Profile to Command Leadership	Communication of Control Profile to Leadership	
			Modification – Development of Internal Controls	

Speaker Notes:

Phased Approach:

1. Preliminary Assessment - Objective is to assist in determining where your organization currently is with regards to risk management/MCP
 - Take a web-based survey to determine level (currently under development by FMO)
 - Gap analysis based on survey will help to generate Corrective Action Plan to identify steps necessary to achieve the next level
2. Environmental Assessment - Objective is to review the organization's environment - does it have a Strategic Plan? Does the Strategic Plan identify your mission and objectives?
3. Risk Assessment - Objective is to determine which areas of the organization have high risks - and what type of risks are they?
 - Develop a Risk Map and Impact Map to determine where focus on controls needs to be - have you identified all the risks in the organization, especially the high risks
4. Controls Assessment - Feeds off the Risk Assessment outcome. Objective is to determine whether controls are in place to mitigate risk?
 - Develop a Control Profile
5. External Validation - Objective is to have auditors assess whether the controls are working to mitigate risk

Slide 15 Risk Management Approach—Assessment Tool: Risk Map

ABC Corp, Risk Identification and Assessment Summary—Risk Map

The table below summarizes the risk assessment for business areas under infrastructure support. The table has 9 columns and 16 rows. The first column lists the business areas, the next 7 columns list the risk rating by risk type (financial, reputation, strategic, technology, operations, human resources, and environmental) for each business area, and the final column lists the final risk rating for each business area.

Business Area	Financial	Reputation	Strategic	Technology	Operations	Human Resources	Environmental	Final Rating
Procurement	High	Low	High	Moderate	High	Low	Low	High
Facilities Management	Moderate	Low	Low	Low	Moderate	Low	Low	Low
Construction	High	Moderate	Low	Low	Low	Low	High	Moderate
Logistics: Transportation and Distribution	Moderate	Low	High	Moderate	High	Moderate	Low	Moderate
Credit	High	Low	Low	Moderate	Low	Moderate	Low	Moderate
Organizational Protection	Low	High	Moderate	Moderate	Low	Low	Low	Low
Corporate Finance & Accounting	Low	Low	Low	Moderate	Moderate	Moderate	Low	Low
Treasure/Investments/Foreign Exchange	High	Low	Low	Low	Low	Moderate	Low	Moderate
Marketing	Moderate	Moderate	Low	Low	Low	Low	Low	Low
Government Affairs	Low	High	Moderate	Low	Low	Low	Moderate	Moderate
Public Relations	Low	High	Low	Low	Low	Moderate	Moderate	Moderate
New Product Development	Low	High	High	Moderate	Moderate	Low	High	High
Product Testing and Evaluation	High	Moderate	High	Moderate	Low	Low	High	High
Laboratory Management	Low	Moderate	Low	Moderate	Low	Low	Moderate	Moderate
Quality Assurance	Low	High	Moderate	Moderate	High	Moderate	Low	Moderate

The table below summarizes the risk assessment for business areas under information technology. The table has 9 columns and 6 rows. As with the table above, the first column lists the business areas, the next 7 columns list the risk rating by risk type (financial, reputation, strategic, technology, operations, human resources, and environmental) for each business area, and the final column lists the final risk rating for each business area.

Business Area	Financial	Reputation	Strategic	Technology	Operations	Human Resources	Environmental	Final Rating
Information Technology Operations	High	Moderate	Moderate	High	Moderate	Moderate	Low	High
Information Technology Development	Moderate	Moderate	High	High	Moderate	Moderate	Low	High
Remote Data Center	Moderate	High	Moderate	Low	Moderate	Low	Low	Moderate
E-Business	Moderate	Moderate	High	Moderate	Low	Low	Low	Moderate
Web Operations	Moderate	Moderate	High	Moderate	Low	Low	Low	Moderate

The table below summarizes the risk assessment for business areas under human resources. The table has 9 columns and 7 rows. As with the tables above, the first column lists the business areas, the next 7 columns list the risk rating by risk type (financial, reputation, strategic, technology, operations, human resources, and environmental) for each business area, and the final column lists the final risk rating for each business area.

Business Area	Financial	Reputation	Strategic	Technology	Operations	Human Resources	Environmental	Final Rating
Organization Development & Training	Moderate	Moderate	High	Moderate	Moderate	High	Low	Moderate
Benefits Administration	High	Low	Low	Low	Low	Low	Low	Moderate
Recruiting	Low	Low	High	Low	Low	High	Low	Moderate
H.R. Regulatory Compliance	Moderate	Low	Low	Low	Low	Moderate	Low	Low
Labor Relations	Moderate	High	Low	Low	Low	Moderate	Low	Moderate
Compensation	High	Moderate	Moderate	Low	Low	Moderate	Low	Moderate

Speaker Notes:

The risk map is a tool for identifying and assessing business unit risks by risk type. This level of detail allows for analysis across business unit and by risk type—identifies similarities/systemic problems

Slide 16 Risk Management Approach—Assessment Tool: Scatter Graph

The scatter graph below shows where business units fall in terms of probability and impact area. The Business Unit legend follows:

Business Units: 1 Procurement, 2 Facilities Management, 3 Construction, 4 Logistics, 5 Credit, 6 Organizational Protection, 7 Corporate Finance & Accounting, 8 Treasury/Investment/FX, 9 Marketing, 10 Governmental Affairs, 11 Public Relations, 12 New Product Development, 13 Product Testing & Evaluation, 14 Laboratory Management, 15 Quality Assurance, 16 IT Operations, 17 IT Development, 18 Remote Data Center, 19 E-Business, 20 Web Operations, 21 Data Security Administration.

Business units that fall within the high probability, high impact area: 30, 16, 12, 17, 21,

Business units that fall within the high probability, moderate impact area: 1, 24, 3, 25

Business units that fall within the high probability, low impact area: 11, 7

Business units that fall within the moderate probability, high impact area: 31, 13, 15, 4, 19, 20

Business units that fall within the moderate probability, moderate impact area: 29, 8, 14, 26, 22, 2, 18, 5

Business units that fall within the moderate probability, low impact area: 23, 27, 6

Business units that fall within the low probability, high impact area: 10

Business units that fall within the low probability, moderate impact area: 9, 32

Business units that fall within the low probability, low impact area: none

Speaker Notes:

Same type of analysis, different format than Risk Map—concentrates the high risk units and allow prioritization

Slide 17 Risk Management Approach—Embracing The New Role Of The Internal Auditor
Definition of Internal Auditing

“Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It *helps an organization accomplish its objectives* by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.”

—*The Institute of Internal Auditors*

Speaker Notes:

Role of internal auditor is to ASSIST organization in accomplishing its mission

Slide 18 NAVFAC Pilot Program—Overview

- Pilot program centered around Enterprise-wide Risk Management Program currently used in private sector organizations.
- Objective was to provide value to the Command and meet the requirements of the Management Control Program.
- Pilot selection focused on a Command with many private sector type processes—the NAVFACENGCOM was chosen for the program.

Speaker Notes:

KEY: This program is for YOU and YOUR COMMAND—Be honest with yourself.

Issue of self reporting/confidentiality

Slide 19 NAVFAC Pilot Program—Lessons Learned

- Need early involvement of “*Top Leadership*”.
- *Timing* within the life of the organization is important.
- Need consistent *commitment* to the program.
- Need more intensive *training* prior to the facilitated risk identification session.

Speaker Notes:

NAVFAC selected the Business Line Management Improvement and Information Technology System Management as its 2 high risk areas - Business Line Management made it to the Command's Top 5 Initiatives

Slide 20 NAVFAC Pilot Program—Benefits to the Command

- Valuable process to *focus* management attention and create dialogue.
- Allowed focus on risk areas within the organization which are normally *hard to address*.
- Increased awareness of *interdependencies* and management systems.
- Expanded the scope of review to broader categories of risk *beyond financial*.
- The ultimate benefits will be realized by *implementation* of recommendations.

Speaker Notes:

KEY: A program that guides you to solve your own problems.

Don't oversell the program But a new lens

Shook up old paradigms

Alignment of the message with the functions

Slide 21 NAVFAC Pilot Program—Costs to the Command

- “New Process” - Integrated within our Command.
- Time - Involvement of Top Leadership in various activities from 1 day sessions to several half day meetings and on-line activities.

Speaker Notes:

New Process - how do we incorporate this with what we're already doing?

Slide 22 Risk Management Opportunities—Another Look at the Risk Continuum

Danger vs. Opportunity

Speaker Notes:

Want to look at risk in a different light—OPPORTUNITY

By CONTROLLING risk, we understand its impact on the organization's mission.

KEY: MITIGATE danger, MAXIMIZE opportunity

FORWARD THINKING

Slide 23 Risk Management Opportunities—Success Stories: Y2K from the DoD Perspective

Using arrows, the figure below illustrates that Risk Assessment (Probable collapse of computer systems and services due to technology flaws: Technology risk, Financial risk, Environmental risk, Strategic risk, and Human Resource Risk) leads to Controls Assessment (Controls not in place to mitigate problem; controls redesigned to mitigate/avoid problems), which leads to External Validation (DoD worked with Audit Community throughout control improvement process) and onto Risk Mitigation/Avoidance, in which Systems and services continued to operate.

Slide 24 Risk Management Opportunities—Success Stories: Centrally Billed Accounts

Using arrows, the figure below illustrates that Risk Assessment (Payments not made due to technology incapable of meeting new requirement: Technology risk, Operational risk, Financial risk, and Reputation risk) lead to Controls Assessment (Controls in place not adequate to mitigate problem; Procedures and controls redesigned to mitigate risk), which leads to External Validation (Monitoring of Performance Measures) and onto Risk Mitigation/Avoidance, in which suspended payments, penalty interest, and payment time is decreased.

Speaker Notes:

Background: Monthly CBA volume approximately \$25 million, 75,000 transactions

In September 1999:

- \$180 million in suspense at DFAS
- 17,000 transactions suspended
- Average payment time for invoices 155 days
- Prompt Payment Act interest for FY 99 \$3.7 million. During FY 2000, average payment time remained at 150 days and prompt payment act interest for FY 2000 \$5.3 million

Revised Internal Controls: New process implemented in October 2000.

As of April 2001:

- Average invoices in suspense - \$9 million
- Average transactions suspended - 1000
- Average payment time - 30 days
- Prompt Payment Act interest less than \$100K

Slide 25 Risk Management Opportunities—Risk Management: The Wave of the Future

- General Accounting Office – “Internal Control Management and Evaluation Tool” Exposure Draft (February 2001)
- American Institute of Certified Public Accountants and The Canadian Institute of Chartered Accountant – “Managing Risk in the New Economy: Risk is about putting the odds in your favor”

Speaker Notes:

Risk Management is the future, as demonstrated by GAO and AICPA

Navy is ahead of the game

These are a few of the tools available—Check out their websites.

Slide 26 Risk Management Opportunities—Making Risk Thinking a Common Practice

“If we just thought systematically before we implemented it, rather than after the fact, we could have prevented many problems...All the facts were known to us, we simply didn’t have a thinking process that would force and guide us to examine it early in the game.”

—Excerpt from The Goal

Speaker Notes:

WE NEED TO BE FORWARD THINKING

Slide 27 Risk Management Opportunities—Begin Assessing Your Business Risk Management Today
To obtain further information about Business Risk Management or the Business Risk Assessment Pilot Program, contact:

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