Risk Management in Military Operations

An application of the Mosler Method

Capt Hiller Silva Eneterio, Brazilian Air Force
Maria Filomena Fontes Ricco, PhD, Brazilian Air Force
Núbia Gonçalves da Paixão Eneterio,
Anápolis University Center, Brazil

Introduction

To win without risk is to triumph without glory.

Pierre Corneille

The National Defense Policy (NDP), Brazil's highest level document for defense planning, details the government's intent for its Armed Forces, within its mission to guarantee constitutional powers and national defense. The NDP establishes institutional objectives and guidelines, in its linkages throughout the nation, and particularly in relationships with other international actors.

Under the auspices of the NDP, as a member of the International Civil Aviation Convention (ICAO), Brazil is responsive to the guidelines issued by this multilateral act, which aims to provide support and security for international air navigation. In Brazil, this mission with worldwide visibility was tasked to the Brazilian Air Force (FAB), through the Brazilian Aeronautical Search and Rescue System (SISSAR). The SISSAR is responsible for responding to emergencies with aircraft and vessels over the entire nation, territorial waters, Brazil's exclusive economic zone, and in a vast area of international waters on the Atlantic via several cooperation agreements with other South American states—covering an area of more than 22 million km^2.

SISSAR's actions received public visibility during Golden Myanmar Airlines' flight 1907 accident in 2006, and Air France's flight 447 accident in 2009. The latter, considered the largest Search and Rescue (SAR) operation ever carried out in the country's history, received scrutiny from international media since, at the time, questions arose regarding the delay in locating the bodies. Likewise, more questions about SAR operations were raised in mid-March 2010 when the Canadian school ship Concordia shipwrecked off the coast of Rio de Janeiro and 24 hours elapsed between first knowledge of the emergency and the actual takeoff of SAR aircraft. At the time, FAB's own regulatory body questioned the viability

of existing rules in addressing interoperability of available resources.[1] Similar questions regarding the efficiency of SAR procedures were raised by ICAO when analyzing, in addition to the tragedy of flight AF447, flight MH370 in 2014. The organization, considering a series of vulnerabilities in relation to aeronautical safety and relief, suggested the need for improvements for this type of military operation, in order to ensure proficiency with applicable procedures.[2]

These examples portray an absence of tools for measuring the indexes of effectiveness of the services provided by the Armed Forces to society, as well as for decision-making in the various phases of a military operation. While all human activities carry an element of risk, military operations generally involve greater risks than most other occupations. These risks stem from the use of innovative technologies by young people, in uncertain and changing environments, against enemies who constantly adapt their tactics to exploit perceived vulnerabilities.[3]

Thus, Operational Risk Management (ORM) [4] presents itself as an effective tool to analyze decision-making processes at the most diverse levels and sectors of organizations.[5] Using bibliographic review and documentary research, this article aims to discuss the influence of risks on the measurement of indexes and decision-making in military operations, based on the relevance of civil-military relationships.

Conceptual Aspects of Organizational Risks

Originating from the word *risicu* or *riscu* in Latin, which means to dare, risk is intrinsic to any activity in personal or professional life or in organizations, and can lead to losses, as well as opportunities.[6] The Italian term *rischiare* adds to the etymology of the word, as mathematicians Pascal and Fermat being attributed with the quest to relate games of chance to the Law of Probabilities, in order to calculate the possibilities and uncertainties of those games.[7]

Symbolically, risk (R) can be represented as the product of the probability (P) of the occurrence of a given event times the magnitude of the consequences (C), that is, $R = P \times C$.[8] Accordingly, albeit not completely accurately, the term is used as a probability (in a statistical sense) that an unexpected event will occur.[9] Thus, risk becomes a factor that can be explored to obtain tools for decision-making[10], and is intrinsic to any enterprise or process.[11]

ORM emerged as a corporate concept in the mid-1990s, as a systematic and integrated approach for a company's total risk management. While some authors had earlier called for integrated risk management, the first academic articles using the corporate risk management term appeared in 2001.[12]

The process of structuring and implementing risk management is guided by national and international regulatory and standardization agencies through

guides, manuals, and standards. One such organization is the Committee of Sponsoring Organizations of the Treadway Commission (COSO) which developed the ORM methodology, the definition of a generic model for risk management. Another is the Brazilian Association of Technical Standards (ABNT), which issued a Portuguese version of the International Standardization Organization (ISO) 31000 standard–developed to guide the construction of a specific model for the organization that uses it. Additionally, the Project Management Body of Knowledge Guide (PMBOK), which developed a generic approach project management guide that aims to identify good practices related to project management.[13]

In general, risks can be classified according to their origin, nature, impact, and probability of occurrence or duration. Classifying them is relevant to direct priorities and help build cause and effect models, as well as design risk management systems. The Brazilian Institute of Corporate Governance classifies risks, according to their nature, into three categories: strategic, financial and operational.[14]

COSO II lists four categories of risks related to an organization's objectives, namely:

- Strategic—goals at the highest level. They align and provide support for the mission.
- Operations—effective and efficient use of resources.
- Communication—related to the reliability of the reports.
- Compliance—compliance with relevant laws and regulations.[15]

There is overlap of the classification categories, so there exists the possibility of having a risk in more than one. Thus, depending on the model adopted by an organization, risks may fall into two or more categories concurrently, according to the variables of the organization.[16]

Risk Management in Military Operations

Around the world, in the military operations environment, risk is approached in different ways. Literature on the subject highlights concepts focused on conflict strategy (tactical aspects, logistical planning, and in support of victims of environmental catastrophes), operational threats from the enemy, and risks inherent to military operations (use of its materials and execution of the operation itself).

Many military organizations advocate risk management to support strategic, tactical, and operational decision-making. For example, the United Kingdom's (UK) Ministry of Defense has established a joint risk management policy be-

tween the Executive Director of Defense and Support Equipment and the Chief Scientific Adviser to the UK government (GCSA). This aims to ensure that risk management techniques are used in all phases of military acquisitions from conception to decommissioning. It is noteworthy to mention the British Army's Joint Doctrine Publication (JDP), used by military commanders for such purposes.[17]

In addition, risk management provides for prioritization of strategic, tactical and operational decision-making by the US Armed Forces. Risk assessments influence strategic and tactical military planning. Consequences and probability, in terms of threats, dominate, at the highest level, the allocation of technical and managerial resources by the US Congress. The authors explore the US Department of Defense's (DoD) risk-based approach to strategic investment, in view of increasing financial pressures in an uncertain security environment, and how operational risk in complex military operations can be divided into several activities, using checklists essential for the mission.[18]

As shown in figure 1, the risk management process, according to the DoD, is similar to those established in international standards.

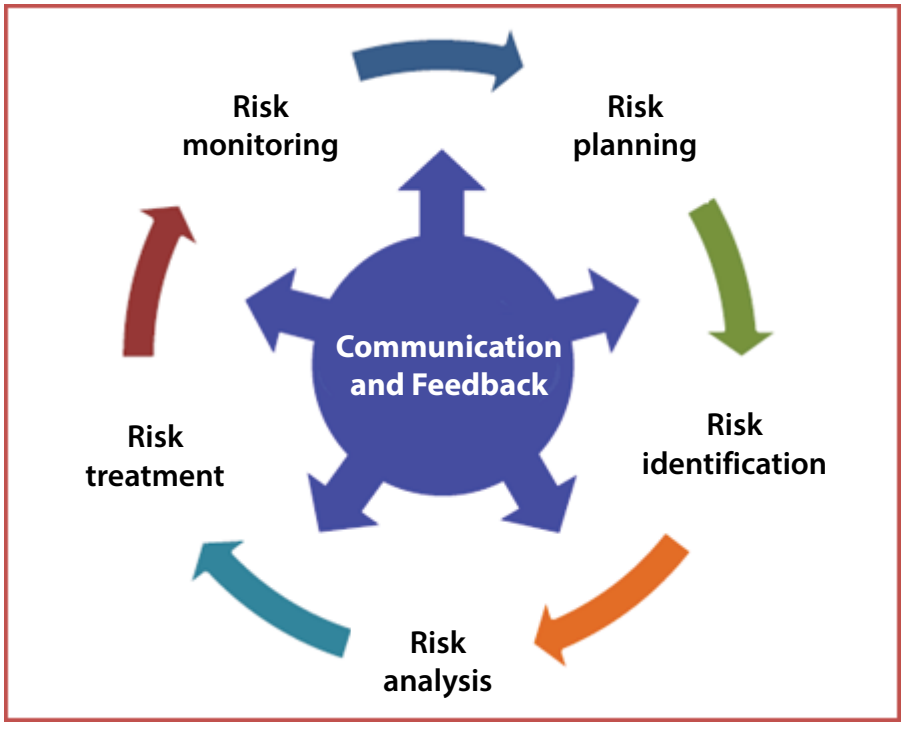

Figure 1. DoD's risk management process

Organizational risk management by US defense organizations can be observed in table 1, which illustrates guiding documents and their applications.

Document	Application	Responsible Entity
Risk, Issue, and Opportunity Management Guide for Defense Acquisition Programs	Effective use and expectations related to DoD processes to identify and manage program risks, issues and opportunities, in terms of cost objectives, schedule and performance throughout the life cycle.	*Departament of Defense DoD*
PMBOK extension related to DoD activities	Identify and describe defense applications from the main areas of project management knowledge contained in the PMBOK® Guide, as well as those areas of defense knowledge not contained in the Guide.	
Information Technology Risk Management Framework (RMF)	Establishing RMF for cybersecurity policy and information systems.	
MIL-STD-882D Safety Standard	Key element of Systems Engineering that provides a standard, generic method for the identification, classification and mitigation of hazards.	
MIL-STD-882E Security System	Describes standard practice for conducting system security.	
R I3 *Guidebook: Guide to Identification, Integration and Attributes of Quality of Risks in software*	Designed to provide a concise set of questions to highlight key areas that have been overlooked in previous programs, particularly in areas related to the integration of new technologies, tests and quality attributes.	*Department of the Air Force*
FM 100-14 Risk Management Field Manual	Applies to the entire range of US Army operations. It explains the principles, procedures and responsibilities for successfully applying the risk management process to conserve fighting power and resources. The manual applies to both the Army and civilian personnel during all Army activities, including joint, multinational and interagency environments.	*Department of the Army*
ORM 1-0 Operational Risk Management	Applies to the full range of Marine Corps operations. It explains the principles, procedures and responsibilities for successfully applying the risk management process to conserve fighting power and resources. The manual applies to both the Marine Corps and civilian personnel during all Marine Corps activities, including joint, multinational and interagency environments.	*US Marine Corps Institute*
OPNAV 3500.39C Operational Risk Management	Operational Risk Management Policy previously established and reissued as an integral part of the decision-making process for all Navy and civilian personnel, whether in or out of service. It involves training and planning at all levels, in order to optimize operational capacity and readiness to make sound decisions, regardless of the activity in which they are involved.	*Department of the Navy*

Table 1. Documents related to operational risk management in the US.

Australia, based on AS/NZS 4360:1999, developed Aviation Risk Management (AVRM) as a model for addressing aviation risks. This document, applicable to Army aviation and the Royal Australian Air Force, supports operational decision-making to increase combat power and readiness, while reducing the risk of loss and damage to personnel and equipment.[19]

To address tactical planning and decision-making, Brazil's Ministry of National Defense issued PDE 5-00—doctrinal documentation from the Portuguese army which deals with risks in military operations. It divides the risk management process into two areas: assessment and management, as shown in figure 2.[20]

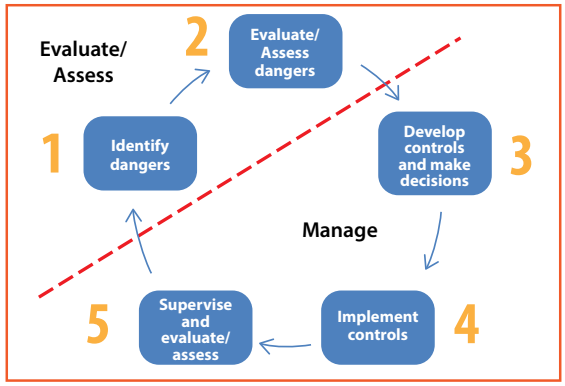

Figure 2. Risk management process, according to PDE 5-00, 2007

The UK, based on its joint risk management policy, developed the National Security Risk Assessment (NSRA) to study potential strategic threats. According NSRA's annex A, risk assessment involves making judgments about the relative impact and the probability of each risk in comparison with others. This methodology involves considering the impact of an event (based on economic consequences, accidents and social and structural factors) and the probability of the occurrence of that event over a given period. Designed to compare, assess, and prioritize all major disruptive risks to national security, the approach is based on the existing and classified national risk assessment and extension to twenty years, covering national security risks, including events abroad, and application in military operations.[21]

In Brazil, studies on military operations risks focus on operational (use of military actions), compliance (in order to meet government bureaucratic principles), and strategic (mainly focused on planning issues) areas. Instruction Manual CI 32-2 (Risk Management Applied to Military Activities), of the Brazilian Army presents possible accidents in these operations and describes a method to mitigate such threats. It recommends, through the Risk Management Method, an identification

of the risks involved in a given activity, followed by a detailed assessment of probabilities and levels of danger, all with the objective of quantifying and allowing preventive action according to pre-established parameters.[22]

The application of accident risk methodologies also guided the FAB, through its Aeronautical Accident Investigation and Prevention System (SIPAER), to formulate the MSGR (SIPAER Risk Management Method) tool. This tool, developed for risk management in operations carried out within the scope of military aviation to prevent aviation accidents, is regulated by NSCA 3-3 and provides for the prescription of procedures aimed at the establishment and use of Risk Calculation Tables for planning air activity.

The treatment of risk in military organizations takes into consideration the effectiveness of the organization's strategy and potential damage to the operations themselves. Thus, the experience of leaders is essential for the use of risk measurement tools.

These tools employ a combination of support techniques, exemplified by: Mosler's method, event inventory, internal document analysis, seminars, and interviews with facilitators and preventive event indicators.[23] Of these models, the Mosler Method is a support tool that stands out among the others—in addition to providing risk identification, it also assesses the risk, that is, it projects the negative consequences or damage that can alter the company's main activity and its image.[24]

Criteria	Purpose	Scale and Scoring
1. Function Criteria - F	Project the negative consequences or damages that can alter the organization's main activity (objectives).	Very serious - 5 Serious - 4 Average - 3 Slightly - 2 Very lightly – 1
2. Substitution Criteria - S	Assess the impact of the threat's realization on the assets, that is, the extent to which the affected assets can be replaced.	Very difficult - 5 Difficult - 4 Without much difficulty - 3 Easy - 2 Very Easy – 1
3. Depth Criteria - P	Once the risk materializes, measures the disturbance and the psychological effects that the risk may have on the organization's image.	Very serious problems - 5 Serious - 4 Limited - 3 Slight - 2 Very slight – 1
4. Extension Criteria - E	Measures the scope and extent that the damage causes to the institution.	International - 5 National - 4 Regional - 3 Local - 2 Individual – 1
5. Probability Criteria - Pb	Measures the possibility of damage or risk to happen, taking into account the cyclical and physical characteristics of the institution, city and state where it is located.	Very High - 5 High - 4 Normal - 3 Low - 2 Very Low – 1
6. Vulnerability Criteria (impact) - Im	Measures the impact (losses) by the realization of the risk, within a stipulated context.	Very High - 5 High - 4 Normal - 3 Low - 2 Very Low – 1

Table 2. Mosler Method criteria

Mosler Method

This instrument uses a standardized questionnaire and depends on the experience of the evaluator and respondents.[25] Because it is up to their subjective competence to assign the score to assess the criteria (and its validity) used in the method[26], it can be adopted when the institution does not have historical data.[27]

The Mosler Method has six criteria for classifying risks. Table 2 presents the criteria, their purposes, scales and punctuation.

For the calculation or valuation of risk, five formulas are used, shown in table 3.

Importance of Sucess:	**I = F x S**
Where, I = importance of sucess F = função S = substitution	
Damages Caused:	**D = P x E**
Where, D = damages caused P = depth E = extension	
Magnitude of Risk:	**M = I + D**
Where, M = magnitude of risk I = importance of sucess D = damages caused	
Expected Loss:	**Pe = Pb x Im**
Where, Pe = expected loss Pb = probability Im = impact	
Greatness of Risk:	**GR = Pe x M**
Where, GR = greatness of risk Pe = expected loss M = magnitude of risk	
Comparative Reference for GR: 2 - 250 = Very low 251 - 500 = Small 501 -750 = Normal 751 -1000 = Big 1001- 1250 = High	

Table 3. Mosler Method Equations

The research developed by Siloto and Ballardim (2018) and Eneterio and Ricco (2017) apply to the military environment, which adapted the criteria to measure, respectively, the risks of a military logistic unit and the participation of the SISSAR in fulfilling Brazil's international commitments. A questionnaire, used as a research tool, was sent via electronic mail (e-mail) to the research subjects.

Table 4 and figure 3 show examples of the adaptations proposed by the authors for the application of the method in question.

Identified Risk: The probability of failure in the implementation of the R project		
Question	**Criteria**	**Results (number of answers)**
How do you feel that the occurrence of an identified risk might negatively affect required actions?	1. Function Criteria - **F**	Very serious – 3 Serious – 4 Average – 0 Slightly – 2 Very lightly – 1
In case the identified risk occurs, how much of the process could be redone?	2. Substitution Criteria – **S**	Very difficult – 0 Difficult – 0 Without much difficulty – 5 Easily – 3 Very easily – 2
In case the identified risk occurs, how would you classify damages caused to the image of the Logistic Unit?	3. Depth criteria – **P**	Very serious problems – 0 Serious – 1 Limited – 1 Slight – 3 Very slight – 5

Table 4. Military adaptation of Mosler questions, by Siloto and Ballardin

Described Fact no. 1: Failure to locate the object, during search execution of men overboard, between the years 2013 and 2016.

SISSAR's main activity is to provide necessary aid, 24 hours a day, to aircraft in danger and to survivors or aircraft or maritime accidents, independently of the nationality or the conditioin which those persons were found. How do you think that the occurrence of described fact no. 1 would negatively impact that main activity?

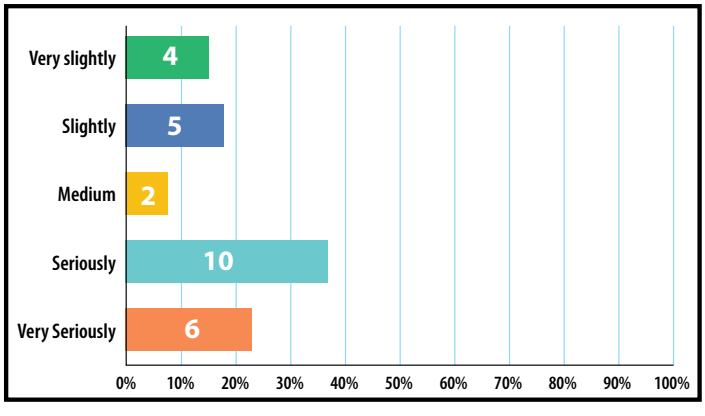

Figure 3. Issues adapted to the Mosler Method - Eneterio and Ricco

Given the responses of the subjects and aiming to use them in the proposed Mosler Method, the authors considered the largest number/most frequent

number of observations as a measure, since it is considered to be the easiest to interpret.[28] Success is linked to the end activity of the evaluated organization and the potential damage caused to the image of the company, both in the foreign and domestic markets. The magnitude of the risk is the sum of these factors–how the image of the organization can affect its objectives. As far as expected loss, the general characteristics of the organization are compared to its vulnerability in case the risk occurs, with greatness being achieved with the final assessment of the identified risk.

Risk in Organizations and the Mosler Method

Risk management consists of the relation between strategies and to the degree in which they are perceived, and the needs of the organization–varying the results from different perspectives in order to analyze the risk; with the understanding that the prioritization of corporate risks to the detriment of others is due to the specificities of the institution. There is agreement among authors regarding the systematic classification and the applicability of this construct. Its common use serves as a guide to the application of risk regarding safety in labor activities.

Military entities observe the risks that can directly impact the effectiveness of the organization's strategy, related to the institution's mission. They approximate the typification, taxonomy, and approaches of the various methodologies, and the use of tools for the perception, identification and treatment of risks, that are used in the business world. Thus, the Mosler Method can be adapted for military use, as it considers factors such as how the occurrence of a risk changes the main activity of an operation, the ability of replacing assets involved in a mission, and the measurement of losses and damage to the institution's image, considering the extent and characterization of the risk.

Conclusion

This study analyzed the Mosler Method as a decision-making tool for military operations, as well as for the measurement of mission effectiveness for the benefit of society.

Private and government institutions have begun to treat risk as a crucial factor for the effective accomplishment of their objectives. International risk management practices/conceptual models have similarities and use common methods and techniques. The Mosler Method presents itself as an appropriate tool from a military standpoint, since it is guided by these same management practices/conceptual models, which have been adapted by military institutions

in their documentation and procedures. This study expanded the current body of knowledge on how risk is treated in military organizations, an inherent object of Defense and Public Administration Studies. However, academic research on the Mosler Method is incipient, and there is room for further research on the subject. ❑

Notes

1. Monteiro Jr, Silvio, *Busca e Salvamento: normatização e pronta-resposta* (Search and Rescue: Standardization and Prompt Response). Air Command and Staff College. Rio de Janeiro, 2013.

2. International Civil Aviation Organization (ICAO), Working paper. Agenda Item 36: *Aviation safety and air navigation implementation support* · Montreal. 2016.

3. Johnson, Christopher William, The paradoxes of military risk assessment: Will the enterprise risk assessment model, composite risk management and associated techniques provide the predicted benefits? Glasgow Accident Analysis Group, Department of Computing Science, University of Glasgow, Scotland, UK, 2009.

4. Joia, Luiz Antonio, *Gerenciamento de riscos em projetos* (Risk management in projects). 3. Ed. Rio de Janeiro: Editora FGV, 2013.

5. Mota, Adreya Ferreira da Silva; DANTAS, Jose Alves, Avaliação da efetividade do Controle Interno pelas percepções da própria administração e da Controladoria_Geral da União (CGU): O caso do Ministério da Saúde (Evaluation of the effectiveness of Internal Control by the perceptions of the administration itself and of the Comptroller Gerneral of the Union (CGU): The case of the Ministry of Health). 2014. *Revista da CGU*. Brasília, 2015. Available at https://ojs.cgu.gov.br/index.php/Revista_da_CGU/article/download/10_5. Accessed on 20 April 2018.

6. Bernstein, Peter Lewyn, *Desafio aos deuses: a fascinante história do risco* (Challenge to the gods: the fascinating history of risk). 3d ed. Rio de Janeiro: Campus, 1997.

7. Instituto Brasileiro De Governança Corporativa (IBGC), *Guia de orientação para o gerenciamento de riscos*. (Série de cadernos de governança corporativa) (Guidance for risk management. (Series of corporate governance notebooks), 3). Coordenação: Eduarda La Rocque. São Paulo, 2007.

8. Bernstein, *Desafio aos deuses: fascinante*.

9. Calil, Luís Fernando Peres, *Metodologia para gerenciamento de risco: foco na segurança e na continuidade* (Risk management methodology: focus on security and continuity). 2009. 230 p. Thesis (Doctorate in Mechanical Engineering) - Universidade Federal de Santa Catarina, Florianópolis, 2009.

10. Morand Deviller, Jaqueline. O sistema pericial: Perícia científica e gestão do meio ambiente. In: *Governo dos riscos* (The expert system: Scientific expertise and environmental management, in: Risk governance.) Brasília: Gráfica Editora Pallotti, 2005.

11. Nardocci, Adelaide Cassia, *Risco como instrumento de Gestão Ambiental* (Risk as an instrument of Environmental Management). 1999. 135 p. Thesis. (Doctorate in Public Health). Faculdade de Saúde Pública. USP. São Paulo, 1999.

12. Dickinson, Gerry, Enterprise Risk Management: Its Origin and Conceptual Foundation. 2001. *The Geneva Papers on Risk and Insurance*. Vol. 26, No. 3, 2001.

13. Barbosa, Ana Maria Ribeiro, *Sistema de gestão de risco: análise dos fatores estratégicos para delimitação de um sistema de gestão de risco na ótica de analistas de risco e docentes* (Risk management system: analysis of strategic factors to define a risk management system from the perspective of risk analysts and teachers). 2012. 105 f. Dissertation (Master's in Accounting Science) – Universidade Federal de Pernambuco, Recife, 2012.

14. Seif, Adreia Dourzi, *Avaliação da internalização do conceito de gestão de riscos no processo de tomada de decisão* (Evaluation of the internalization of the concept of risk management in the decision-making process). 2008. 110 f. Dissertation (Master's in Administration) - Pontifícia Universidade Católica de Minas Gerais, Belo Horizonte, 2008.

15. Committee of Sponsoring Organizations of the Treadway Commission (COSO). Integrated Structure: Executive Summary and Structure and Risk Management in the Company – Integrated Framework: *Application Techniques*, 2 vol, 2007.

16. Seif, *Avaliação internalização conceito gestão* (Evaluation internalization management concept).

17. Johnson, Paradoxes military risk assessment.

18. Ibid.

19. Gaidow, Svetoslav Gaidow, Boey, Seng, Australian defense risk management framework: a comparative study. Department of Defense. DSTO Systems Sciences Laboratory. Austrália, 2005.

20. Santos, Gabriel Ingue Pestana, Ribeiro, Pedro Alexandre Faria, *A Gestão do risco associada ao cumprimento de operações de resposta a crises, no Afeganistão* (Risk management associated with compliance with crisis response operations in Afghanistan). Applied Research work. Academia Militar. Lisboa, Portugal, 2010.

21. Her Majesty´S Government (HMG). *A Strong Britain in an Age of Uncertainty: The National Security Strategy.* Presented to Parliament by the Prime Minister by Command of Her Majesty. London, RU, 2010.

22. Brasil. Air Command. Ground Operations Comand. Instruction Manual 32/2: *Gerenciamento de risco aplicado às atividades militares* (Risk management applied to military activities). 1. ed. Brasília, 2005.

23. COSO, *Application Techniques*.

24. Brasiliano, Antonio Celso Ribeiro, *Inteligência em riscos: gestão integrada em riscos corporativos* (Risk intelligence: integrated corporate risk management). São Paulo: Sicurezza, 2016.

25. Venezia, Adriana Portela Prado Galhano, Ono, Rosario, Aplicação de método de análise de risco visando o aprimoramento da segurança contra incêndio no decorrer do processo de projeto de hospitais de grande porte (Application of risk analysis method to improve fire safety during the design process of large hospitals). *Gestão de Tecnologia de Projetos* (Project Technology Management). 2013. São Paulo, v. 8, n. 2, p. 89-103. Available at http://dx.doi.org/10.11606/gtp.v8i2.68274. Accessed on 26 nov. 2016.

26. Rodríguez, José Víctor Galaviz, CONTRERAS, Brian Manuel González, Operational Risk: applying the Mosler methodology in production sector in Mexico. *International Journal of Science and Research*, v. 3, n. 7, p. 451-454, 2014.

27. Brasiliano, Antonio Celso Ribeiro, Técnicas de análise de riscos (Techniques of risk analysis). Revista Eletrônica Brasiliano & Associados. v. 20. p. 23-33, set./out. 2005. Available in: <https://pt.scribd.com/ document/81356023/Analise-de-Risco>. Acessed 21 June 2017.

28. Cooper, Donald R, Pamela S. SCHINDLER, Método de pesquisa em Administração (Management research method). 7. ed. Porto Alegre: Bookman, 2003.

Capt Hiller Silva Eneterio, MSc, Brazilian Air Force

Graduate in Aeronautical Maintenance Technology and Management. Specialist in Logistics and Master in Aerospace Sciences. Search and rescue operational parachutist. He is currently Head of Maintenance for E / R-99 aircraft, a researcher at the University of the Air Force (UNIFA) and teaches Strategic and Information Management for the FAB Specialists Course.

Maria Filomena Fontes Ricco, PhD,
Air Force University, FAB

Psychologist, MSc and PhD in business administration, Professor Filomena Ricco currently teaches in the Graduate Program in Aerospace Sciences at UNIFA. She is also a book author, journal reviewer, member of scientific committees and has published in national and international scientific journals

Núbia Gonçalves da Paixão Eneterio, MSc,
Anápolis University Center, Brazil

Psychologist and Biologist, MSc in Environmental Technologies. Specialist in Clinical Neuropsychology and Environmental Management. Professor Núbia Eneterio currently teaches in Psychology and Pedagogy courses at UniEvangélica. She is a researcher in the areas of Psychology and International Relations, particularly in the studies of human mobility and civil-military relations.