

**Explaining international conflict escalation: A comparative analysis of the commercial aircraft shootdowns of MH17, KAL007 and IR655.**

by

**Cristina Aggelaki**

S2200430

[c.aggelaki@student.utwente.nl]

Submitted in partial fulfillment of the requirements for the degree of  
Master of Science, Public Administration program, University of Twente

2020

Supervisors:

Dr René Torenvlied, University of Twente

Dr. Veronica Junjan, University of Twente

## Acknowledgments

Dear reader,

This master thesis marks the end of my studies at the University of Twente. It has been a great experience that has offered me the opportunity to acquire a thorough knowledge in the field of Public Administration. The inspiration behind the topic of this thesis is found in my personal interest in aviation.

I would like to thank, first of all, my first supervisor, Dr. René Torenvlied for his continuous support, valuable feedback, and great ideas that helped me to complete this assignment. Secondly, I would like to thank my second supervisor, Dr. Veronica Junja, for her insightful advice and feedback.

I would also like to express my gratitude to my classmates from Public Administration, especially to Arno van Wieren and Teodora Goga, for their help and support.

I am also grateful to my employers who were very understanding and permitted me to take days off in order to study.

I would like to say a big thank you to my mother and stepfather for their support throughout the whole duration of my studies as well as to my friends in Greece and in the Netherlands for their interest and support.

Last but not least, the most important contribution was the encouragement of my boyfriend Steven, whose endless emotional and practical support, understanding, and persistence helped me to make it through the difficult moments. Without you, nothing would have been achieved.

Cristina Aggelaki

Winterswijk, October 2020

## Abstract

The purpose of this master thesis is to explain how an international conflict can escalate into a direct confrontation by presenting three different cases of commercial aircrafts shooting down and analyze them in comparison with the Cuban Missile Crisis. In order to provide an answer to the main research question *'How can the processes that led to the shooting down of the KAL 007, IR655, and MH17 flights be explained from the three explanations in Allison's theory of crisis decision-making and escalation of international conflict?'*, this master thesis will present the three core models from Graham Allison book *'Essence of Decision'* and how they materialized during the Cuban Missile Crisis. Afterward, these models will be applied to the three shooting down cases attempting to explain the main reason that led to the downing of the aircrafts according to the Rational Actor Model, the Organisational Process Model, and the Bureaucratic Model respectively. A causal-comparative research design will be used to compare the three shooting down cases in order to identify similarities and differences. The findings, in the end, reveal that there is an analogy between the Cuban Missile Crisis and the escalation of the crisis before downing a commercial aircraft.

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## Chapter 1: Introduction

Chapter 1 will present an introduction in the history of shooting down incidents and discuss the regulations of the aviation history, mainly the rules and policies that have been implemented by the International Civil Aviation Organization and the European Commission. In continuation, a short introduction to the book of Graham Allison will be made. In the end, the research questions and the methodology will be outlined as well as the scientific and societal relevance.

The topic of this master thesis has an immediate connection with the Public Administration field as it attempts to explain the mechanisms and reasons that lead an international conflict to escalate into an armed confrontation. For that reason, four cases of international disputes that escalated into direct conflict will be presented: the Cuban Missile Crisis (even though the events that took place can be characterized as escalation, the war was avoided eventually), and the shooting down of three commercial aircrafts, the MH17, KAL007 and IR655.

Aircraft shooting-down incidents are as old as the history of aviation. Whereas the first incidents happened during the First and the Second World War, many have occurred during peacetime either by mistake or intentional operations. According to Hughes (1980), one fundamental principle of international law is that every country has complete and exclusive sovereignty over the airspace above its territory. Therefore, every state has the exclusive fundamental right to control the access and use of its airspace, as well as blocking it or shutting it down. During war times in the past, countries had the option to allow or to prohibit the access of aircrafts to specific areas of their airspace.

One fundamental distinction was between non-military and military intruders, which was signed at the Convention of the Regulation of Air Navigation in Paris in 1919 (Hughes, 1980). The Convention on International Civil Aviation in 1944 (during WW2) restated the same agreement. The distinction mentioned above was clear to the United States of America and Russia during the Cold War. However, Russia has resorted to violence many times in an effort to protect its territory and airspace from intruders. This tactic was not abandoned by the end of the Cold War, as was proved in a tragic way with the downing of MH17, presumably by pro-Russian separatists (Williams, 2016, p2).

There is no doubt that aviation safety is one of the major concerns of the transportation system. Airplanes are considered the fastest and safest means of transportation. However, they are susceptible to external threats. This became very apparent and critical after 9/11. Whereas hijacking and bomb planting are common ways of use of violence, there have been other methods of using force, such as the shoot-down of commercial and military airplanes.

According to Janic (2000, p,44), one of the major implications in the aviation industry is how to administer the risk and safety. This has been resolved, to a certain extent, by the conduct of technical investigations, assessment of the risks and the establishment of risk standards according to society's norms. Responsible for aviation regulation is the International Civil

Aviation Organization (ICAO), which is an inter-governmental organization and it became a specialized agency of the United Nations in 1947 (Klenka, 2014). Its prime goal is to ensure the safety of the aviation industry. Specifically, according to the definition by ICAO published in 2006, safety is defined as “the state in which the possibility of harm to a person or of property damage is reduced to and maintained at or below an acceptable level through a continuing process of hazard identification and safety risk management” (ICAO, Safety Management Manual, derived from Klenka, 2014). The European Commission moved on to establish rules regarding civil aviation security, distinguishing between the notions of security and safety, defining the second one as the prevention of accidents capable of affecting material or people and the security as the prevention of unlawful acts aiming to affect people or airplanes (Klenka, 2014).

Every country provides its airspace for both military and civil aviation purposes. Whereas the military activities serve purposes essential for the safety of the state, such as self-defense, they also pose threats to civil aircrafts. This organization responsible for the coordination between those two activities is the ICAO, as was discussed above. According to Klenka (2014), “international law does not justify the use of weapons against a civil aircraft in flight if there are innocent passengers and crew members on board, even in a situation where such an aircraft is misused by criminals as a weapon of destruction”. Therefore, one of the biggest threats nowadays to civil aviation comes from terrorist organizations and military groups. From the analysis above it becomes clear that the international law does not accept in any way the shooting down of aircrafts with civilians on board, however, are there any conditions that explain the resort to violence?

This current state of affairs is not new, and we may ask whether we can learn from the past, both historically and theoretically. The confrontation of the Soviet Union with the United States over the discovery of Soviet offensive missiles deployed in Cuba (known as Cuban Missile Crisis) in October of 1962 could have escalated into a nuclear war. Graham Allison, a political scientist and professor at Harvard University, wrote a book about those events named ‘Essence of Decision’. This study over the dispute of 1962 has been a political science best-seller and it is considered an excellent explanatory case study that explains in-depth the complexity of governmental actions in de crisis situation. The book was revised in 1999 with the contribution of Philip Zelikow, presenting in a more thoughtful way the ability of a single case study to lead to significant explanations and generalizations over the importance of crisis decision-making.

The book develops its theory around four central questions about the deployment of missiles, that deal with the following questions:

- Why did the Soviet Union place strategic offensive missiles in Cuba?
- Why did the United States respond with a naval quarantine of Soviet shipments to Cuba?
- Why were the missiles withdrawn?
- What are the lessons of the missile crisis?

The questions are addressed by exploring three partly complementary theories: the Rational Actor Model, the Organizational Process Model, and the Bureaucratic model. The analysis of the Cuban missile crisis provides an appropriate theoretical framework to explain state deployment of anti-aircraft missiles against commercial planes, which is the object of study in the present thesis.

## 1.2 Research Question and Sub-questions

There is not a universal and specific theory that explains the conditions under which an aircraft is shot-down. The issue is complex and multi-dimensional, incorporating various reasons and aspects. This master thesis will attempt to explain the resort to violence against a civil aircraft as an explanation of the escalation of international conflict from the scope of three theories that have been developed by Graham Allison: the rational actor model, the organizational process model, and the bureaucratic model. Their advantage lies in their ability to explain the governmental actions while dealing with a crucial crisis that threatens to disrupt a state's balance and possibly escalate into a conflict or war. Therefore, the main research question is being formulated as:

*How can the processes that led to the shooting down of the KAL 007, IR655, and MH17 flights be explained from the three explanations in Allison's theory of crisis decision-making and escalation of international conflict?*

In the process of trying to answer the main research question, there is a need for supplementary sub-questions that will provide the necessary elements to develop the analysis. That said, the following sub-questions have been formulated:

1) What are the main mechanisms of crisis decision-making from the rational actor model, the organization process model, and the bureaucratic model that explain the escalation of international conflict?

1b) What are the main explanations offered in the form of hypotheses?

1c) How did those mechanisms materialize during the Cuban Missile Crisis?

2) What mechanisms have driven the shot-downs in the case of KAL 007, IR655, and MH17?

2b) What mechanisms do the three cases have in common and what are the differences?

3) To what extent are the mechanisms observed in the three cases similar or different from those identified in the Cuban Missile Crisis.

## 1.3 Methodology

As mentioned above, the aim of the present thesis is to unravel which mechanisms explain the aircrafts shoot-down incidents in accordance with the crisis-decision-making theory of Graham Allison. In order to explore those reasons, three shoot down cases will be analyzed

and compared with the decision-making theory as well as with each other. Therefore, the research strategy that this master thesis will follow is the case study approach.

Case studies have been used extensively as a research design method to analyze a phenomenon, to generate a hypothesis, and to validate a method. Despite those facts, there is no universal accepted systematic case method used by researchers (Teegavarapu et al. 2008). A case study could be described in simple words as 'the investigation of one or more specific instances of something that comprise the cases in the study' (Rose et al., 2015,p.1). A more technical definition according to Yin (2003, p. 13) is ' a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident'. They consist of a reliable method in descriptive research studies as they incorporate the ability to investigate a case thoroughly and make use of multiple sources of evidence when the focus is on a specific situation ( Rose et al., 2015, p.3).

The first important step at the beginning of research is to determine whether the case study approach is suitable for the purpose of this study. Yin (2003, p.1) identifies three factors that could affect a researcher's decision on which method to employ:

- a) The type of research question (when 'how' or 'why' questions are being asked)
- b) The control that an investigator has on actual behavioral events
- c) The focus on contemporary as opposed to historical events

The central research question of this master thesis is 'how recent cases of aircraft shoot-downs can be explained according to Graham Allison's theory of crisis decision-making'? Therefore, the type of research question is a 'how' explanatory question which aims to explain an event using an existing theory from another event. The identification of the type of research question is a crucial step in the onset of a research project as it determines the research method that should be employed. As far as the second condition (b) is concerned, the degree of control that can be exercised on the study and analysis of this project is very low. Subsequently, the case study method is preferred over other methods since this investigation deals with a contemporary event where the relevant behavior cannot be manipulated (Rowley, 2005 p. 17). Manipulation can occur in a laboratory environment where the investigator could manipulate the variables precisely and directly or in the context of a social experiment but not when studying a naturally occurring event in its real life context. Finally, a distinction between contemporary and historical events is being made by adding two sources of evidence that are not usually included in a history paper: the direct observation of the events that are being studied and the interviews of the people involved. These two methods can sometimes overlap but the advantage of the case study method is that it can make use of a plethora of evidence such as documents, artifacts, interviews, and observations. The book of Graham Allison offers a comprehensive view of the Cuban Missile Crisis not only by merely stating historical facts but, foremost, by explaining the situation from three theoretical perspectives. The single-case study (Cuban Missile Crisis) is an in-depth explanatory theory of the events of the October 1962 crisis and not just a descriptive or exploratory description of historical events. The factors mentioned



above make the case study approach the most suitable one for purpose of this research paper.

### 1.3.1 Research Design

The purpose of the present master thesis study is to investigate the conditions under which a state takes the decision to shoot down a civilian aircraft by using three theories developed in Graham Allison's 'Essence of Decision' book: the organization process model, the rational actor model, and the bureaucratic model. Therefore, this master thesis serves the aim of qualitative explanatory research. In order to do so, three study cases of aircraft shoot-down will be analyzed in the context of a single-case study that employs the three models mentioned above (Cuban Missile Crisis). Afterward, the three shoot-down cases will be compared with each other and with the Cuban Missile crisis aiming to find similarities and differences. The ultimate goal is to shed light on the decision to shoot down an aircraft: how the decision was taken, why this specific decision, which were the alternatives and which were the results.

The second step after formulating the research question(s) is to define which are the cases in the study. As Yin (2003) states: 'the cases form the unit of analysis of the research project.' Therefore, the unit of analysis in this study are the three cases of shoot-down incidents: KAL007, IR655, and MH17. When working on the first sub-question (*What are the main mechanisms from the rational actor model, the organization process model and the bureaucratic model?*) the unit of analysis is the three models, whereas when dealing with the second and third sub-questions (*'What are the main explanations offered in the form of hypotheses?'* and *'How did those mechanisms materialize during the Cuban Missile Crisis?'*) the unit of analysis are the hypothesis and the mechanism respectively. Finally, regarding the last three sub-questions (*'What mechanisms have driven in the case of KAL007, IR655 and MH17?'*, *'What mechanisms do the three cases have in common and what are the differences?'*, *'To what extent are the mechanisms observed in the three cases similar or different from those identified in the Cuban Missile Crisis?'*) the unit of analysis are the three shoot-down events.

### 1.3.2 Case studies

Case selection is a crucial part of the successful outcome of a research project. In general multiple cases are favored over a single case. This occurs due to concerns over the representativeness of a chosen single case, the extent to which generalizability is possible, the vulnerability to confirmation bias, and the possible tendency of the data to be biased so as to confirm the researcher's preconceived opinion. Also, the difficulty in carrying out a comparative analysis with a single case study is another important problem. (Rose et al., 2015, p.15). For these reasons, three cases have been selected for the investigation purpose of this thesis. That way, they will allow the theory of Allison Graham to be grounded more firmly and it will produce more varied evidence, leading to a concrete cross-case comparison.

The three shoot-down cases of KAL007, IR655, MH17 have been chosen over others on the grounds that they share some common features: a civil aircraft operating an international route is shot-down while flying above a war zone. As a result of two states having a conflict,

other states are unwittingly drawn into that conflict. This crisis event shakes the equilibrium between states and involves collateral damage to civilians who are not exclusively citizens of the states involved in that conflict. Another common element among those three incidents is the huge loss in terms of human life and the fact that the involving countries are considered powerful in the international community in terms of economic, political, and military power.

Moreover, those three cases allow for the extension of Graham's three crisis decision-making models to other political and diplomatic crises, attempting to shed light on the factors that can lead a state to shoot-down an aircraft. Finally, the three aforementioned cases are easily accessible, there is a vast plethora of information on them, they have been studied thoroughly in an academic and political context. However, there is a limitation regarding the MH17 case due to the fact that it has occurred relatively recently (in 2014). Therefore, there is not yet a great volume of research on that case.

The main piece of literature that will be used in this master thesis project is the book of Graham Allison 'Essence of Decision' (1971). The revised version of 1999 that is co-written with Philip Zelikow will also be used. It will serve as the basis of the investigation as it offers the three main models on which the theory will be built. The data for the three shoot-down incidents will be extracted from a plethora of sources: official reports, academic and non-academic papers. As a student at the University of Twente, I am able to use research engines such as Google Scholar, Web of Science, Scopus which will give me the ability to have access to a vast plethora of literature.

### **1.3.3 Causal Comparative design theory**

A causal comparative design is a research design that aims to identify relationships between independent and dependent variables after an event or action has already taken place (Salkind, 2010 p.125) This method is used mainly in order to explain and acquire a thorough understanding of the causal processes that participate in the process of creating an event, feature or relationship by combining variations in the explanatory variable(s). This research method serves the aim of establishing relations between two or more phenomena and pointing out their similarities and differences (Adiya et al., 2017).

According to Pickvance (2001, p.10), a comparative analysis establishes a subtype in which two criteria must converge:

- a) The data must be gathered on two or more cases which can be countries, cities, events. However, the nature of the unit is not relevant
- b) It is crucial that the researcher attempts to explain and not only describe.

The aim of the comparative analysis is to seek similarities and differences in a) values of variables, b) the shape of the relationship between variables, c) the occurrence of events or patterns of events (Pickvance, 2001, p12).

The comparative design theory is used as a methodological tool in this master thesis because it will allow examining if a small number of empirical cases, namely the downing incidents of MH17, KAL 007, and IR 655 can be correlated with another case study, the Cuban Missile Crisis identifying similarities and differences. Also, it will investigate whether the facts that

occurred during the Cuban Missile crisis were present and to which extent in the aforementioned shooting-down cases by examining the features of various controlled variables. In that hypothetical relationship, this master thesis will investigate which societal features of the controlled or independent variable are a key type of the dependent and to which degree they vary.

It is important to realize that the comparative analysis expects that the variables that are being compared should be commensurable but not necessarily identical. This term is used here to refer to the ability of the variables to be placed at the same or different points on a dimension of theoretical interest (Pickvance, 2001, p.17)

#### 1.4 Scientific and Societal Relevance

The scientific relevance of that master thesis is that it attempts to give an explanation of the reasons that a state or a military group takes the decision to shoot-down a commercial aircraft. The shoot-down incidents are numerous throughout the last two centuries and even though the majority of them concerned military aircrafts, there have been many cases where the aircraft was a civil one. Even though it is irrational that a country would take the decision to kill hundreds of innocent people, there exists a plethora of reasons behind that fatal decision. Every commercial aircraft shooting down is followed by an investigation in criminal, political, and aviation aspects. When an aircraft crashes on the soil it is a simple procedure to find the black boxes and retrieve the flight data, therefore the technical and aviation-related reasons behind the crash can be immediately identified. The most complicated task for the involved states and the international community is to find out the exact motives that lead a state to take such a decision. This investigation is being complicated by the fact that the involved states are in war or armed conflict. Consequently, there is not a single factor that contributes to the downing of the aircraft. This master thesis tries to shed light on three important and multi-fatal incidents by analyzing the background of the conflicts that they were involved in and making a comparison with the three models that Graham Allison employed in order to explain the Cuban Missile Crisis. The ultimate purpose of that study is to give an explanation about the motivation of the states or leaders to shoot-down a commercial aircraft.

Regarding the societal relevance of the study, it is found on the tragic loss of hundreds of lives and the pain that causes to families and society in general. This pain is becoming more intense by the fact that in the majority of the shooting-down cases the culprits have not been brought to justice, as it is tragically proven in the Netherlands with the MH17 case. The downing of commercial aircrafts is a societal problem as it concerns innocent civilians who are not involved in the conflict between other states. Moreover, it causes fear and uncertainty to airliners and travelers.

#### *Outline*

Chapter 1 presented the introduction, the research question, and subquestions. The methodology also was addressed as well as the societal and scientific relevance. Chapter 2 will outline the theoretical framework by discussing the Cuban Missile Crisis and presenting the Rational Actor Model, the Organizational Process Model and the Bureaucratic Model. In

chapter 3 the study cases of MH17, KAL007, and IR655 will be presented and their mechanisms will be analyzed. Chapter 4 will proceed to make a comparative analysis of the three cases by identifying their similarities and differences. Finally, chapter 5 will provide an answer to the main research question, suggestions for future research and explain the limitations of the study.

## Chapter 2: Theoretical Framework

This section will provide the theoretical framework of the thesis which will be based on the book of Graham Allison 'Essence of Decision' will serve as the main source of information regarding the three conceptual models of decision making, namely the Organization Process Model, the Rational Actor Model, and the Bureaucratic Model. This book has been selected because the three theories that he employs to explain the Cuban Missile Crisis are an excellent methodological tool to explain and analyze crucial events in foreign politics by examining them from the scope of three different but complementary theories. First, a general introduction into the Cuban Missile Crisis will be made, which is going to introduce the reader to the historical events that took place in October of 1962. Afterward, the three models will be presented and analyzed in the context of their mechanisms and hypothesis.

### 2.1 The Cuban Missile Crisis

Before proceeding to analyze the main models that Graham Allison uses to explain the seminal events of the Cuban Missile Crisis, it is useful to obtain a general idea of the historical events that took place in October of 1962. The following section will provide an overview by making a literature review.

The Cuban Missile Crisis has been characterized as one of the most critical events of the 20<sup>th</sup> century and it has been thoroughly studied by a great number of academics and politicians. The importance of those events lies in the fact that the crisis is widely considered to be the closest the world has come to a nuclear war (Norris and Kristensen, 2012). The unprecedented confrontation between the two greatest powers of the Cold War, the United States and the Soviet Union, started on 16 October of 1962 when the US President John F. Kennedy was informed that the Soviet Union was building bases on the island of Cuba with the purpose of installing ballistic missiles that could pose a huge threat and destroy major American cities (Brenner, 1990, p. 115). Those events did not unfold out of nowhere. The previous months had been marked by intense political criticism towards the American president John Kennedy whose decision and actions were posing his country under threat. According to Cyr (2013, p.7), the US faced a huge political and public relations as well as military defeat following the failed invasion of Cuba at the Bay of Pigs by a CIA-backed anti-Castro force in the spring of 1961, including the failure of the USA to provide air

support to protect the force and the leak to the press from the military offices. This led the public to assume that the operations failed intentionally.

Even though the Cold War was intensely present since 1945, the two rivals were considered to act as rational actors in the context that their actions could be predicted and their confrontation was generally stable. They were unwilling to engage in large-scale strategic moves with some minor exceptions. However, this changed dramatically in 1959 when Fidel Castro's revolutionary forces took over the control of Cuba. As Cyr (2013 p.7) notices, the stability that was characterizing the conflict between the Soviet Union and the United States changed sharply. The shift of Cuba towards the Soviet influence alongside the possibility that Castro's regime could sponsor Communist revolutions in Latin America generated a feeling of insecurity and concern to the US, enhanced by the construction of military bases on the Caribbean island.

During the summer of 1962, the events around Cuba seemed to escalate dramatically. Specifically, in July, an agreement between Havana and Moscow took place which permitted the placement of strategic nuclear missiles in Cuba by the Soviet Union (Cyr, 2013 p.7). Much literature has been devoted to providing an answer to the question 'why the Soviet Union decided to place offensive missiles in Cuba'. There have been many propositions but they can all be summarized in the words of Walt Rostow in his 1972 book 'The diffusion of Power' (taken from Medland, 1990, p. 434): *The Soviet President Nikita Khrushchev 'was looking for a quick success which would enhance his political prestige and power in the Soviet politics, enhance his authority in the international communist movement, redress the military balance cheaply in terms of resources and provide leverage for the resolution of the Berlin problem he had sought without success since 1958.'*

William Medland (1990) believes that while the traditionalists of the Kennedy administration adopted the hypothesis that is more or less the same as Rostow proposed above, they failed to understand the real goals of the Soviet Union, which were: to compensate for the strategic imbalance, to protect the Castro's communist regime and to enhance their position in the Caribbean and Latin America (p. 436).

The US president perceived the missiles to be offensive based not on their real nature but on his assumptions regarding the intention of the Soviet Union. This was not reflecting the reality as the United States had nuclear superiority which did not alter significantly by the introduction of the missiles in Cuba (Horowitz, 1965, taken from Medland, 1990)

During the next few days, crucial events unfolded. Specifically, President Kennedy, after having received photos showing the missiles in Cuba, decided to establish a blockade around the island with the apparent purpose of preventing more missiles to reach the Cuban bases, however, the underlying purpose was to respond to the Soviet placement of missiles in the West by showing off their power (Chace, 2015). Even though in the beginning it seemed that the blockade was serving its purpose as several Soviet ships were forced to turn back, the confusion that was caused by both president's contradictory communication and perceived aggression escalated into the shoot-down of an American U-2 airplane which was scrambled to take photographs of the missiles by a Soviet surface-to-air missile and resulted in the pilot's death. It was feared that those events would take a dramatic overturn. Nevertheless,

the conflict was resolved the very same day as the president Kennedy managed to negotiate with the Soviet President Nikita Khrushchev by announcing publicly that they would not invade Cuba and privately that he would disassemble the Jupiter missiles placed in Turkey under the condition that the Soviet would destroy their missiles in Cuba under the supervision of the United Nations. Those conditions were accepted by the Soviet President and therefore the Cuban Missile Crisis was terminated relatively peacefully (Chace, 2015).

## 2.2 The rational actor model

The rational actor model is one of the three core theories that Graham Allison employs in his attempt to explain the Cuban Missile Crisis and this choice comes without any questions. The rational choice theory, which is the base of the rational actor model, is one of the most dominant approaches in the analysis of social phenomena (Hudik, 2019) and it is being widely used in political science, economics, game theory, psychology, statistics, and international relations. The basic principle is that people tend to evaluate their choices according to a reference point and overweight losses relative to comparable gains (Levy, 1997). According to Scott (2000), the basic assumption of the rational choice theories is that individuals are perceived to be motivated by their desires and goals which express their preferences within specific, given constraints and according to the information they have about those conditions.

The rational choice theory perceives the individuals as thoughtful agents who make decisions based on some criteria. This task can be dismantled in five different subtasks: a) identification of the relevant goals, b) search of alternative ways of action, c) prediction of the consequences of each alternative, d) evaluation of each alternative in terms of its consequences for goal achievement and e) selection of the best alternative in the pursuit of the goal achievement (Anderson, 1983).

However, this theory has been subjected to criticism in many of its application fields. The behavioral economists point out that the rational choice theory is rooted in unrealistic assumptions and that its predictions are falsified by empirical evidence (Hudik, 2019) whereas Anderson (1983) believes on the one hand that people can reach only a small fraction of the rational computational ideal due to limited information-processing ability and on the other hand that organizational action is not the result of the intellectual process as it is implied in the decision-making process. Rather, it is the outcome of social interaction within the organization. Finally, one last weakness of the rational choice theory is inherited in its substance as people lack adequate information and time when dealing with a large range of possibilities, which is also further implicated by the unpredictable nature of human actions (Bekemans, 1980).

### **Main mechanisms**

In analogy with the occurrences in our daily life, the international relations experts seek to identify the motivations behind crucial events in foreign affairs. In the pursuit of offering satisfactory answers about the motivations of the states, it is important to perceive the international events and the governmental behavior in regard to the purposeful action of the individuals. As Allison (1972) notices, the interpretation of national governments as

centrally coordinated and purposeful individuals offers a useful way of understanding problems in policy.

As discussed previously, the main principle of the rational choice theory is that people make decisions that will offer them a value-maximizing result. Graham Allison (1972, p.13) adds to that theory by suggesting that the notion of rational behavior is to behave and act motivated by a considerate calculation of advantages that is based on an explicit and internal and consistent system of values. He then proceeds to highlight the most important elements of the rational actor model or, in other words, the classic model. The majority of the international relations experts agree that in the process of analyzing crucial events it is important to focus primarily on the actions of the agents which translates into the behavior that stands behind the intention or purpose. Another basic assumption is that the actors in foreign affairs are the national governments and that their actions are driven according to a calculated solution to a strategic problem. Finally, the attempt to explain those actions consists of the display of the goals that the governments were trying to achieve and how this action was a logical and thoughtful choice, given the nation's objectives.

Before analyzing the main mechanism of the rational actor model, it is important for the reader to acquire an overview of the most important dimensions of this model. As the above analysis indicates, humans act in everyday life with a purpose and the same applies to the actors in the field of international relations, which as we saw earlier are the national governments. This assumption is central to the study of almost all social sciences as they study human behavior as purposive and goal-directed. However, the perception of human activity as a simple thoughtful, and goal-oriented act is not satisfactory since it lacks the concept of consistency. When the agents decide to act in order to achieve a value-maximizing goal, it is not enough to just act based on some specific aims and desires. Rather, it is of high importance that the agent sets up goals that are consistent with the objectives regarding a particular action as well as making use of consistency in the process of applying principles in order to select the optimal alternative. (Graham and Zelikow, 1999, p.17)

The author presents four basic concepts of the rational actor model. The first one is the goals and objectives of the agents. Those two elements are expressed as a 'payoff' or 'utility' or preference function which stands for the value or utility of alternative sets of consequences. In other words, when the agents start the process of deciding in regard to a problem, he utilizes the payoff function which ranks all the possible set of consequences in terms of his values and objectives (Graham and Zelikow, 1999, p.18)

The second concept is the alternatives. The rational agents have to select among a set of alternatives that are shown to him before a particular situation. Those alternatives could consist of more than just a simple act but the specification of a set of actions must be stated precisely enough in order to differentiate it from other alternatives (Graham and Zelikow, 1999, p.18)

The third concept is the consequences. Each alternative is connected to a set of consequences or outcomes that derive from a specific choice and they will be generated if this choice is made (Graham and Zelikow, 1999, p.18)

Finally, the fourth concept concerns the choices. The essence of rational choice consists of choosing the alternative whose consequences rank the highest in the decision maker's payoff function (Graham and Zelikow, 1999, p.18).

## **Paradigm**

This section will provide a literature review on the paradigms that Graham Allison employs in order to deepen into the main mechanisms of the Rational Actor Model. Specifically, he develops this model as an analytical paradigm which according to Merton (derived from Allison, 1972) is 'a systematic statement of the basic assumptions, concepts, and propositions used by a school of analysis. He then proceeds to present that hypothesis which is the followings:

### **I Basic Unit of Analysis** (Allison, 1972, p32)

The governmental action a choice. According to this concept, the events in foreign affairs are understood as actions selected by the nation or the national governments and this choice serves to maximize the strategic goals and the objectives.

### **II Organizational concepts** (Allison, 1972, p32)

A. National Actor: The nation or government which is perceived as a rational and unitary decision-maker is the agent and he is in possession of one set of specified goals, one set of perceived opinions, and one single prediction of the consequences that stem from each alternative.

B. The problem. Every problem that a state faces triggers an action as a response and it is those menaces and opportunities that prompt the government to act.

C. State Selection: It is the total amount of activity that a state devotes to the purpose of solving a problem and it is considered a fixed choice among alternative outcomes.

D. Action as Rational Choice: It is composed of:

1. Goals and Objectives. National security and national interests are the main categories that the strategic goals concern
2. Options: Different aspects of actions in connection to a strategic problem lead to a range of options
3. Consequences: The use of each series of alternative series of action will generate a number of consequences that are made up by the benefits and costs in terms of strategic goals and objectives.
4. Choice: A rational choice is a value-maximizing act which means that the rational agent selects the alternative whose consequences are the most beneficial in terms of goals and objectives.

**III Dominant Inference Pattern** (Allison, 1972, p33) The rational actor model is explained in terms of an interference pattern which is understood as the pattern that offers the value-maximizing result regarding an action.



**IV General Propositions** (Allison, 1972, p32-33) The central assumption of the value-maximizing behavior generates some propositions which are the basis of the majority of explanations and they are constructed as follows: the likelihood of any particular action derives from the combination of the nation's a) relevant values and objectives, b) perceived alternative courses of action, c) estimates of various sets of consequences and d) net valuation of each set of consequences. This theory generates two other propositions which stand as follows:

- 1) An increase in the cost of an alternative reduces the probability of that action to be selected
- 2) A decrease in the costs of an alternative increases the probability of this action to be selected.

**V Specific propositions** (Allison, 1972, p33-34)

A Deterrence: A successful deterrence is likely to take place in analogy with the to function of the factors that were mentioned in the general propositions. This leads to two propositions:

1. The likelihood of a nuclear attack is reduced under the condition that a stable nuclear balance exists and this is the combination of the general propositions and the assumption that a second-strike capability affects the potential attacker's calculation of a retaliation.
2. The probability of a limited war is increased by a stable nuclear balance and this occurs due to the fact that a stable nuclear balance is less likely to engage in a nuclear confrontation.

B Soviet Force Posture: The Soviet force posture embodies a value-maximizing way of implementing the Soviet strategic objectives and military doctrine.

**VI Evidence** (Allison, 1972, p35 )When the analyst is confronted with a crucial event, he places himself in the position of the nation and this allows him to use the principles of the rational action in order to examine the strategic characteristics of the occurrence.

**Hypothesis: (Answer to research question 1(b) and 1(c))**

Research question 1(b) asked what are the main explanations for the escalation of international conflict as offered by Graham Allison in the form of hypotheses? Below I will discuss the hypotheses that Allison derived from the rational actor model that he developed in order to explain the Cuban Missile Crisis. There are four hypotheses. After introducing each of them, I will describe how those mechanisms materialized during the Cuban Missile Crisis. This addresses the research question 1(c)

As it was mentioned in the first chapter of this master thesis, the book of Graham Allison was developed around four central questions. The first one addresses the questions ' Why did the Soviet Union place offensive missiles in Cuba?' This chapter proposes four hypotheses which serve as a possible answer to the central question.

The discovery of the ballistic missiles in Cuba on 15-16 October was a huge shock to the American government. The meetings that took place within the next days were trying to find the motives behind the reckless movement of the Soviet Union which could place the two countries on the risk of a nuclear confrontation and they produced four possible hypothesis

**Rational Actor Explanation one:** Cuban Defense ((Graham and Zelikow, 1999, p.82-88)

The Bay of Pigs invasion of 1961 by a force of CIA-trained Cuban exiles failed with severe consequences for the USA. Nevertheless, this occurrence had generated a substantial fear of the Soviet Union as the USA might try to have a second chance. This is reflected on the explanations that the CIA provided when the ballistic missiles were found in Cuba: *'The Soviet leaders' decision to deploy ballistic missiles to Cuba testifies their determination to deter any active US intervention to weaken or overthrow the Castro regime, which they apparently regarded as likely and imminent'*. Indeed, president Khrushchev and the Soviet officials justified the state's action based on those grounds with the apparent goal to 'improve Cuba's defensive capacity'. According to this theory, the escalation of international conflict is driven by the rational motives of the nation-states. In the case of the deployment of the Soviet ballistic missiles in Cuba, the rational motive of the Soviet Union was to defend Cuba.

Even though the justifications provided by the Soviet Union seem to be persuasive from a first view, they turn out to be weak when being examined thoroughly by international relations experts. The first objection is related to the installment of ballistic missiles in Cuba. If the deterrence of an attack by the US was the main Soviet objective, it was not necessary to deploy ballistic missiles on Cuba. It would have been a more logical option to deploy a sizeable number of Soviet troops.

The second objection concerns the public defense treaty that the Soviets were planning to sign with Cuba without the involvement of military forces. The defense draft had been designed and initiated by the Soviet minister Rodion Malinovsky and Fidel Castro's senior officer Che Guevara and it was to be signed by Khrushchev in Cuba in November of 1962. In August of the same year, Che Guevara alongside Emilio Arragones (top Cuban official), traveled to Moscow to finalize the draft. When they asked Nikita Khrushchev to reveal to the public the content of the treaty and to put an end to his efforts of hiding the nuclear missiles, they faced his rejection.

Another weak point of the defense hypothesis is found in the nuclear nature of the missiles. If the Soviet Union truly believed that a nuclear deterrent was critical, they could have deployed tactical nuclear weapons such as missiles with a range of fewer than 100 miles. Those weapons were available to the Soviets and could have been installed more quickly, less costly, and the most important, with considerably less probability of being discovered before they were ready.

The fourth objection suggests that if the Soviets believed that strategic-range missiles were vital, it would have been sufficient to utilize a significantly smaller number of medium-range missiles such as the MRBM's which have a range of about 1,100 miles. Moreover, there was no need to build bases for submarine-launched missiles either.

The fifth and most important objection to the defense hypothesis concerns the timing of the Soviet decisions which is inconsistent with their theory of deploying nuclear missiles as defensive instruments. More specifically, the Soviet government had already assessed the American threat and had taken measurements that were expressed in the President's Khrushchev decision of 12 April. However, a month later, the Soviet president launched an entirely new process which was reflected in his decision of 21 and 24 of May to deploy a much larger group of Soviet Forces equipped with a big number of nuclear weapons. This act came as a result of the public announcement of the USA to engage in military exercises in Cuba during the months of April and May.

**Rational Actor Explanation two: Cold War Politics** (Graham and Zelikow, 1999, p.88-91)

The core element of the Cold War was the global competition and rivalry between the United States and the Soviet Union. On the one hand, the US had to protect its values and interests and on the other hand, the Soviet Union had to secure its communistic agenda.

When the US Defense Secretary Robert McNamara's made an initial evaluation that the missiles planted in Cuba were of insignificant importance, President Kennedy adopted the cold world politics hypothesis in his response. A few days later, intelligence officers joined the conversations and they estimated that the main goal that the missiles were serving is to make clear to the world that the distribution of power has changed favorably towards them resulting in the inability of the US to prevent the progress of soviet offensive power in their own area. One of the major fears of the USA was that they would lose the confidence of its alliances in Latin America and globally as the expansion of the Soviet policies affects their reputation and credibility around the world.

The Soviet leaders attempted to create a weak image of the USA to their own citizens and the rest of the world. Taking advantage of the failed Bay of Pigs operation and placing the US government in front of the threat of a nuclear missile, the USA could react indecisively and their position could deteriorate by diplomatic protests and the exposure of Kennedy's empty threats. As result, the USA would lose its credibility.

The menace was critical for President Kennedy. When being asked by Schlesinger about the motives behind the installment of the Soviet Missiles, he pointed out that the Soviet could potentially have political benefits on three bases: a) restore the relationship with China and close the gap that had been widening between them since 1959 and establish their presence in the communist world by demonstrating that they were capable of supporting a communist revolution, b) radically reevaluate the context in which the Berlin problem could be resumed after the congressional elections of November and c) deal with the US a political blow

Those arguments, even though seemingly being persuasive, don't take into account five important aspects.

The first objection concerns the question of the necessity from the Soviet part to verify the durability of the American intentions after the strong stand in Berlin in 1961. Allison and Zelikow believe that there was no need for further investigation.

Secondly, the size and the nature of the Soviet deployment was disproportionate to a simple political probe. If the Soviets wanted to merely test the intentions and possibilities of the USA, it would be sufficient to deploy a few MRBMs which had the potential to threaten the whole Southeastern area of the USA.

Third, the deployment of MRBMs, IRBMs, and the plans to build a nuclear submarine base put at risk the *fait accompli* goal which is translated as the soviet successful move on the Cold War game. The Soviet Union could reach the objective of achieving a Cuban enclave safe as much as the one in Berlin even with the installment of a smaller and tailored nuclear base.

The fourth objection concerns the timing of the nuclear probe. Allison and Zelikow wonder what was the motive, besides the humble of the USA, to deploy the missiles in the autumn of 1962.

Finally, the fifth objection puts in question the location of the missile deployment. Cuba and the Caribbean in general were posing a great risk of defeat if the US decided to respond militarily to the provocation from the part of the Soviet Union.

**Rational Actor explanation three: missile power** (Graham and Zelikow, 1999, p.91-99)

When President Kennedy had his first meeting with his advisers on the morning of 16 October, he assumed that the strategic imbalance of Power was the reason behind the deployment of the missiles in Cuba.

Indeed, the Soviet Union was in a tremendously difficult situation as they were facing a window of vulnerability which was becoming constantly wider. Thus, in 1962, due to technical and financial reasons, the Soviet Union had in their possession only twenty intercontinental ballistic missiles (ICBMs) that had the capacity of firing nuclear weapons capable of reaching American territories from bases inside the Soviet Union. Moreover, they had well-grounded reasons to doubt their technical reliability and accuracy. Additionally, the Soviet strategic forces consisted of 200 long-range bombers and only six submarines with submarine-launched ballistic missiles (SLBMs). In contrast, the American nuclear force was substantially more powerful as it included at least 180 CBMS, twelve Polaris submarines, and 630 strategic bombers placed in the USA, Europe, and Asia which were giving the potential to the US to launch an attack from every corner.

Allison and Zelikow question the validity of the missile power hypothesis by wondering why Khrushchev felt the urge to redress the strategic balance instead of waiting to some years until his ICBM force would become larger and more formidable? Their second objection concerns the question of why Khrushchev was willing to put at risk his country's safety in order to solve his problem. One possible answer was the Soviet president was an impulsive person and more prone to take risky decisions than other leaders. Another estimate was proposed by McCone who thought that was envious about a great political prize and the installment of the missiles could lead him into it.

**Rational Actor Explanation four: Berlin-win, trade or trap** (Graham and Zelikow, 1999, p.99-105)

The missile power hypothesis was not satisfactory for President Kennedy. Instead, he proposed a more plausible theory which was to resolve the Berlin problem. According to Graham and Zelikow, Berlin was divided into 5 zones of occupation by 1945 among the United States, the Soviet Union, the United Kingdom, and France. The division of Germany, as a result of the occupation, created zones of influence. That said, the western sector of Berlin was a democratic and capitalistic part which was located in the center of the communist East German State and they were considered a deadly threat to the existence of the eastern communist party. For that reason, Berlin was of critical importance to the Soviet Union.

Instead of engaging directly in a confrontation over Berlin, Khrushchev decided to make a maneuver and transfer the conflict to Cuba. The possible outcomes were three: Either the Americans would not react, so Khrushchev could force the Westerners out of Berlin being persuaded that the missiles in Cuba would deter the US from starting a war, or the US would try to make a bargain, so Khrushchev could trade Cuba for Berlin. The German city was substantially more important than Cuba, therefore this outcome would be a victory for him. Lastly, if the US would proceed to attack or block Cuba, then the Soviet President could use it as an excuse for an equal blockade or attack in Berlin. President John Kennedy felt an immense danger over those outcomes. He thought that the European allies would put the blame on him over the loss of Berlin since they would never be able to understand his motivation to attack Cuba. This would lead to the split of the Alliance and the Soviet Union would be the only winner.

***Answer to research question 1: 'What are the main mechanisms of crisis decision-making from the rational actor model that explain the escalation of international conflict?'***

The question that arises from those explanations is: 'How would this work for downing a commercial aircraft in modern times? The most plausible assumption is that there is an analogy between the escalation of the conflict during the Cuban Missile Crisis and the escalation before the downing of a civil aircraft by military forces of the nation-states. This theory and the explanations offered by Graham Allison lead to a general rational choice hypothesis which supports that the escalation of international conflict is driven by rational motives of the nation-states. In case of the downing of a civil aircraft by military forces of nation-states, the rational motive of these nation-states is to defend themselves.

Hypothesis 1 (rational actor model): The mechanisms that drive the downing of a civil aircraft by military forces of nation-states is a rational motive of these nation-states to defend themselves.

### **2.3 Organizational Process Model**

According to Graham Allison (1972 p.67), governmental behavior can be explained in the terms of action that this chosen by a unitary and rational decision-maker and it is centrally controlled, completely informed, and value-maximizing. Nevertheless, this theory obscures

the fact that the government leaders operate in a loosely allied context and they are don't act in the same way. Rather, the governments calculate their problems through some organizational sensors. In other words, the governments weigh their alternatives and the consequences of their decisions as to the component of their organizational process information. This fact generates the core theory of the organizational process model, according to which the governmental behavior can be understood less as purposeful choices and more as outputs of large organizations that operate according to standard patterns of behavior.

The governments have to deal with a wide spectrum of issues and for that reason, they are divided into multiple large organizations where every task is assigned according to the function of that organization and it is performed in a quasi-independent manner. Therefore, the behavior of the organization regarding a relevant problem is reflected in the independent output of many organizations which are partially controlled and coordinated by the government leaders.

According to the above statements, a general theory of the organizational process model can be derived which supports that every government is comprised of already existing organizations where each of them operates in accordance with a fixed set of standard operating procedures and programs. The behavior of these organizations, when dealing with an issue, is influenced principally by routines that have been established there before the occurrence of that problem. However, the organizations are not a steady and firm operating system. Their behavior changes and adapts to every situation and such a dramatic organizational change can occur as a reaction to a major disaster. This can be related to the downing of aircrafts. Every country has some standard operations when an aircraft violates its airspace. However, when an aircraft threatens the security of a nation, then the government resorts to violent repression in order to protect its territory.

The basic concepts of the organizational process model can be summarized as follows.

**I. Basic Unit of Analysis: Governmental Action as Organizational Output.** (Allison, 1972, p78-79). The occurrences in international politics are, in three critical contexts, outputs of organizational processes. The first is that actual events are organizational outputs. The government decisions establish organizational routines and their behavior is determined by prior established procedures. Secondly, the government leaders, when facing threats, can select from a wide range of effective physical equipment. Third, the organizational outputs determine the situation in which, within narrow constraints, the leader must decide about an issue.

**II. Organizational Concepts** (Allison, 1972, p79-87).

- A. **Organizational Actors:** The actor is not a monolithic 'nation' or 'government' but a system of loosely allied organizations where the government leaders are on the top of the hierarchy.
- B. **Factored Problems and Fractional Power:** The supervision of the multiple aspects of foreign affairs requires that the problems are separated and distributed to various organizations.

- C. Parochial Priorities and Perceptions: The primary responsibility for a narrow number of problems promoted the organizational parochialism which is also strengthened by factors such as the selective information available to the organizations, small group pressures within the organization.
- D. Action as organizational output: The dominant aspect of the organizational activity is its programmed character, in other words, the extent to which the behavior in any particular case is a reflection of pre-established routines.
- E. Central Coordination and Control: It is crucial for every governmental action to be decentralized in terms of responsibility and power. However, problems can't be allocated neatly into separable domains as the task of each department unavoidably interfere with the tasks of others. The relationship among organizations and between organizations and leaders are dependent on factors such as the nature of the tasks, the performance measurement, the information available to governmental leaders, the reward and punishment systems.
- F. Decisions of Governmental Leaders: The organization's persistence does not impede the possible changes in governmental behavior. The governmental leaders are on the top of the hierarchy and despite the lack of total control of a particular organization's goals, they are the decision-makers regarding the distribution of tasks within the organizations.

### **III Dominant Inference Pattern** (Allison, 1972, p87-88).

The actions that the states perform at any time consist of organizational components that were already created in the past and they are only marginally different than the actions. In other words, at any time, the government is formed by an already established system of organizations where each of them includes goals, programs, and repertoires. The characteristics of the government's actions are shaped by those preexisting routines and they are influenced as well by the decisions of the government leaders.

### **IV General Propositions** (Allison, 1972, p89-95).

- A. Organizational Implementation. The standard operating procedures and activities do not allow the activity to adapt in a flexible way to the issue. Thus, the organizational routines are those who determine the details and the distinction of the actions and not the decision of the leaders. The attempt of the Rational Actor Model to use these details in order to make a distinction among alternative hypotheses is misleading. Therefore:
  1. SOPs. The Standard Operating Procedures establish routines for dealing with standard situations and those routines give the opportunity to large numbers of ordinary individuals to deal with a plethora of circumstances continuously.
  2. Programs. A program, such as a complex cluster of SOPs, is rarely fit into the specific situation that it is being carried out.
  3. Repertoire. Since the repertoires are developed by parochial organizations for standard hypothetical situations that the organization has defined, the programs that are available for that situation are the more optimal.

- B. Organizational Options. The number of alternatives that are sufficiently and in detail defined by the organizations has huge limitations in terms of number and character. Therefore:
1. Alternatives that are already present in the organizational goals will be adequate but alternatives that are different from the already existing organizational goals will be inadequate.
  2. The alternatives which require coordination among several organizations are likely to be insufficient.
  3. The alternatives in areas between organizations are likely to be insufficient as well.
- C. Limited flexibility and Incremental Change: Important features of organizational actions are straight, for example, the behavior at one-time  $t$  is slightly different than the behavior at the  $t-1$
1. The organizational budgets change cumulatively
  2. The organizational priorities, perceptions, and issues are relatively stable
  3. The organizational procedures and repertoires change cumulatively
  4. The new activities consist typically of marginal adaptations of existing programs and activities
  5. When a program is undertaken, it continues even in the case where the objective costs outweigh the benefits
- D. Long-range planning: The existence of long-range planning units within the foreign policy sections of the US governments would be sufficient to support the Rational Actor Model's implication that the governments deal with future uncertainty by formulating long-range plans. The Organizational Process Model, on the other hand, proposes the effective allocation of such units to the policy output.
- E. Goals and Tradeoffs: The organizational goals are formulated as constraints. For that reason, the behavior is being separated from the Rational Actor Model's expectations.
1. Tradeoffs, such as hard choices among goals, are disregarded.
  2. Incompatible constraints are attended to disproportionately which means that when the organization cares for one constraint, at the same time ignores the other.
- F. Imperialism: The majority of the organizations perceive the central goal of 'health' as the growth in budget, manpower, and territory. That said, when issues arise in ambiguous and changing areas, they are dealt with colonizing activity.
- G. Options and Organization: The organizations or subunits of them are usually created to serve the purpose of paying special attention to a neglected aspect of a problem.
- H. Administrative Feasibility: Adequate explanations, analyses, and predictions should incorporate the administrative feasibility of a major dimension. A considerable gap separates what leaders choose and what organizations actually implement.
1. Organizations are blunt instruments.



2. The projects which require that existing organizational units are separated from their established programs to execute un-programmed tasks are rarely accomplished in their designed form.
3. Projects that require coordination of the programs of several other organizations are rarely achieved as designed.
4. When an assigned part of a problem is different than the existing organizational goals, then resistance will emerge.
5. The governmental leaders are supposed to expect that each organization will complete its assigned task on the ground that the organization knows what to do.
6. The government leaders should be aware that each organization might offer incomplete and distorted information about their problems or part of them.

**I. Directed Change** (Allison, 1972, p94-94). Existing organizational orientations and routines are not impenetrable to direct change. However, cautious targeting of major factors that support routines can lead to major changes over time.

**V. Specific Propositions** (Allison, 1972, p95-96).

A. Deterrence: The probability of a nuclear attack is less sensitive to balance and imbalance or stability and instability than it is to a number of organizational factors

B. Soviet Force Posture: The Soviet Force Posture is determined by factors such as the goals and procedures of existing military services and research.

**VI Evidence** (Allison, 1972, p96). The government action, when being studied and analyzed according to the above concepts and propositions, can be very beneficial. This can add and expand the theory proposed by the Rational Actor Model.

### **Application to the Cuban Missile Crisis (Research question 1c)**

In order to explain how the organizational process model can be applied to problems that are typically handled by the Rational Actor Model, Allison (1971, p.97) poses the question of why the Soviet Union is simultaneously trying to achieve détente on the one hand and on the other it deploys antiballistic missiles system. The Model I would explain this contradictory action in terms of governmental procedures where some departments can function independently. Model II on the other side would examine the organizational interests, demands, and independent actions that drive those conflicting patterns.

In the process of understanding what organization the Antiballistic Missile Capability concerns, we have to address three questions: a) what part of the defense budget the organization possesses and how stable it is, b) what perceptions and priorities are incorporated in that organization, and c) what programs and standard operating systems are embodied in the organization. It has been publicly evident that the Soviet Antiballistic System was acquired by the Air Defense Command (PVO) which had a large and stable part of the soviet defense budget and it was the main funding organization for the anti-aircraft artillery the period from 1945 until the early 1960s.

The priorities and the characteristics of the PVO are definitely orientated towards the defense and this is naturally derived from the fact that since they are investing such a big amount of expenditures on anti-craft missilery, their primary concern is the defense against missiles. Furthermore, if the PVO continues to do its designated tasks, then an extensive Antibalistic Missile System will be obtained as the organization's established procedure and routines will lead to deployment by continuation. Thus, if the organization desired to act against the deployment, it would require a dramatic change against established procedures and routines.

***Answer to research question 1 'What are the main mechanisms of crisis decision-making from the Organizational Process Model that explain the escalation of international conflict?'***

The question that arises from those explanations is: 'How would this work for downing a commercial aircraft in modern times? The most plausible assumption is that there is an analogy between the escalation of the conflict during the Cuban Missile Crisis and the escalation before the downing of a civil aircraft by military forces of the nation-states.

This theory and the explanations offered by Graham Allison lead to the organizational process hypothesis which supports that the escalation of international conflict is the output of organizational processes.

Hypothesis 2 (Organizational Process Model ): The mechanisms that drive the downing of a civil aircraft by military forces of nation-states is the fact that when the governmental leaders must decide about an issue, within narrow constraints, they can select from a range of effective physical equipment. Therefore, they resort to using missiles in order to deter the threat.

## **2.4 Bureaucratic or Governmental Politics Model**

As we discussed above, the Organizational Process Model defines the governmental action as an organizational output which is partially coordinated by a unified group of leaders and this definition counterbalances the Rational Actor Model's perception of governmental behavior as choices made by a unitary decision-maker. Despite being sufficient in explaining the governmental behavior, those models can be enhanced by a third model, namely the Governmental Politics or Bureaucratic Model.

This approach can be better understood in the terms of a central and competitive political game where the players in every team are not just a monolithic group as was suggested by the previous model. Rather, Model III proposes a new approach where the governmental behavior can be perceived not as organizational outputs but as the result of those bargaining games. This theory is contradictory to the Model I perception of government agents who are seen as unitary actors focusing on a single strategic issue and they take an important governmental decision in accordance with a single rational choice. The Model II, on the other hand, suggests that the government agents are team players focusing on a plethora of

diverse intra-national problems and they are acting according to various conceptions of national, organizational, and personal goals.

**I Basic Unit of Analysis** (Allison, 1972, p.162). Governmental Actions as Political Resultant. The decision and actions that every government takes intra-national political resultants. The concept of 'resultants' is translated into the fact that the events regarding a problem are not chosen as solutions but rather they result from compromises, conflicts, and confusion between officials with contradictory interests and unequal influence. On the other side, the concept of 'political' stands for that activity from which the decisions are derived and it can be suitably characterized as a bargaining process on standardized channels between individual members of the government.

**II Organizing Concepts** (Allison, 1972, p164). The organizing concepts can be placed as an answer to four central questions:

A. *Who plays?* This question concerns the person whose interests and actions are of great importance to the government's decisions and actions.

1. Players in Positions: The governmental actor is not a unitary agent nor a conglomerate of organizations but a number of individual players

B. What influences the position of each player?

1. Parochial Priorities and Perceptions: Every issue is perceived according to

2. Goals and Interests: The preferred outcomes of each player are influenced by goals and interests such as national security, organizational, the domestic and the personal interests.

3. Stakes and Stands: Each player participates in a game in order to determine specific decisions and actions. However, those decisions and actions can contradict the personal interests of every player.

4. Deadlines: The solution to various strategic problems are not formed by independent and loosely connected analysts. Rather, when existing deadlines and issues demand action, they force the players to take positions.

**III Dominant Inference Pattern** (Allison, 1972, p173). When a state executes an action it is considered to be the resultant of a bargaining process between individuals and groups within the government. The Model III adds an explanatory variable by demonstrating how the game is played.

**IV General Propositions** (Allison, 1972, p78-79). The Model III incorporates some fundamental difficulties when it comes to formulating propositions. This happens due to the fact that there exist a plethora of factors that compose a governmental game to intervene between the 'issues' and the results.

**V Evidence** (Allison, 1972, p181). In the case that there are differences in perceptions and priorities within the government regarding a specific topic, the details of that difference are

almost never revealed. This applies to the bargaining process that delivered a resultant as well.

### **Application to the Cuban Missile Crisis:**

The Model III proposes a new theory on how the governmental agents function. As we observed on model II, the Soviet Union was simultaneously trying to achieve a détente and an Antibalistic Missile System. The Model I explained this contradictory action in terms of governmental procedures where some departments can function independently. The Model II on the other side examined the organizational interests, demands and independent actions that drive those conflicting patterns. The Model II proposes that this goal emerges as separate resultants of different bargaining games. However, in order to acquire a complete and concrete grasp of this action, we need more specific information about the players, their advantages and the overlapping procedures from which the relevant decision and actions originated from.

The main characteristic that the Bureaucratic Model adds to Soviet Union objectives is the continuous struggle for power. When a player has a position in a central game, he always faces uncertainty and risks. The Politburo (the executive committee of the Soviet Communist Party) as well as the Central Committee were aware of the instinctive tendency of political agents to try to become preeminent and their central concern was how to keep the leadership collective. This fact leads to a specific proposition which states that the policy issues are inevitably connected with power plays.

The Presidium and the Central Committee have assigned specific tasks and responsibilities to various departments and this leads to the distribution of specific perspectives and priorities to the members or players of those organizations. However, due to personal histories and pressures, some players support the ABM deployment and some are in favor of a détente. Since there is not a deadline that would force the players to make a definitive decision between the ABM and the détente, it gives permission to the players to keep their own preferences.

The interests of the advocates of the détente could come to interfere with established programs and procedures of the PVO in case of budget cuts or American demands to limit the ABM deployment. Indeed, if the ABM deployment had to be terminated, then the central players who were in favor of it would have been defeated and there would be a necessity of redistribution of power among certain ministers and Presidium members.

### **Answer to research questions 1 'What are the main mechanisms of crisis decision-making from the Bureaucratic Model that explain the escalation of international conflict?'**

The question that arises from those explanations is: 'How would this work for downing a commercial aircraft in modern times? The most plausible assumption is that there is an analogy between the escalation of the conflict during the Cuban Missile Crisis and the escalation before the downing of a civil aircraft by military forces of the nation-states.

This theory and the explanations offered by Graham Allison lead to a general bureaucratic hypothesis that supports that the escalation of international conflict is driven by the intra-national political resultants of the nation-states. In the case of the downing of a civil aircraft by military forces of nation-states, the resultant concerns the fact that this event was not chosen as a solution but it was the result of compromises, confusion, and conflict between the officials that took the decision.

Hypothesis 3 (bureaucratic model): The mechanisms that drive the downing of a civil aircraft by military forces of nation-states is the contradictory interests of the government officials.

## Chapter 3: Case Studies

In this chapter the three cases of MH17, KAL007 and IR655 will be discussed. Specifically, a general introduction of the flight background will be presented and afterward, the mechanisms that contributed to the shooting downs will be outlined.

### 3.1 MH17

Malaysia Airlines flight 17 took off on the morning of 17 July 2014 from Amsterdam Schiphol Airport bound for Kuala Lumpur, Malaysia. The aircraft serving the flight was a Boeing 777-2H6ER belonging to Malaysia's national carrier. Onboard the scheduled passenger flight there were 283 passengers and 15 crew members from 10 different countries with the majority being Dutch citizens. Other included nationals from Malaysia, the UK, Australia, Indonesia, and Germany. Two hours later into the flight, the aircraft was flying above Ukraine. The flight path was determined by the airliner and was approved by the air traffic controllers (Preliminary Report, 2015).

While flying within the airspace controlled by Dnipro, after having diverted some miles from its original path in order to avoid bad weather conditions, the aircraft is hit by a missile, broke into pieces in the air, and crashed near the town of Torez, in eastern Ukraine. The data from the flight data recorder and the cockpit voice recorder stopped at 13:20:03 hours eastern European time (Preliminary Report, 2015).

According to Sienkiewicz (2015), in July of 2014, Ukraine was a divided nation, as months of protests and violent clashes had taken place. This war was between Russia-backed separatist rebels and Ukrainian government forces, already 4 months before the MH17 (Toal et al., 2015). Since the area that the aircraft crashed was controlled by pro-Russian separatists, it became immediately obvious that Russia had the responsibility for the downing of MH17 and the international community started to put the blame on Putin. Russia denied any involvement in the incident and indicated Ukraine as the culprit, a tactic that is ongoing even though the criminal investigation concluded that the missile was by pro-Russian separatists.

Specifically, according to Toal et al. (2015), the Dutch Safety Board released a preliminary report based on forensic analysis, audio recording, and witnesses testimonies and concluded that MH17 was shot down by 9M38 missile launched by a Buk from a farmland in the area of Pervomaiskiy which at that time was controlled by pro-Russian separatists. The Dutch Joint Investigating Committee found out that the Buk had been brought from Russian and after hitting the aircraft was taken back to the country, despite the fact that Russian denies having ever brought a Buk from the country to Ukraine ( Toal et al. 2015).

### 3.1.1 MH17 Analysis

The destruction of MH17 was not an event that can be attributed just to one single factor. Rather, it was the result of complex geopolitical, economics, and aviation procedures. As discussed above, the conflict between Russia and Ukraine over the annexation of Crimea had already started some months before the MH17. Specifically, on 26 February, clashes between pro-Russian and pro-Ukrainian protesters broke out where the pro-Russians were demanding to be separated from Ukraine and asking the Russian government to assist. During the following days, the tension escalated dramatically (Bebler, 2015).

Simon Bennet (2015) provided a comprehensive list of the actions that lead to the disaster. Those factors can be separated into two categories: political, and aviation- operations related reasons.

Accordingly, the political circumstances that were prevalent during the Russian-Ukrainian conflict are:

The historical imperialistic tendencies of Russia have placed intermediary countries like Ukraine under great pressure. This desire to influence and control the neighboring western countries dates back to the USSR collapse. Moreover, Russia and the West have turbulent relations, which started during the Cold War and remained disturbed during the Ukrainian war as well. Moreover, the United States, the European Union and Russia transferred the Crimean Regional War into a powerful proxy-war. This conflict has divided Ukraine into two parts: the Pro-West Ukrainians and the pro-Russian rebels which was further enhanced by the Russian President's decision to unite the Russian diaspora which is called 'ruski mir' and counts 25 million people (Bennet, 2015)

Another decisive fact was the perception of the Euromaidan that the Ukrainian President Victor Yanukovich, who was supported by Putin, was leading a corrupt regime. The Euromaidan was a mass protest movement that took place between November 2013 and February 2014 when Yanukovich delayed the signing of the European Union Association Agreement (Shveda et al, 2016). Finally, the decision of the Ukrainian Parliament to terminate the 2012 law on state language policy which enabled Ukraine's regions to adopt other languages except for Ukrainian if they were spoken by over 10% of the local population. As result, thirteen out of 27 Ukrainian regions adopted Russian as a second official language which led them to clinch more towards Russia (Bennet, 2015)

The aviation-related reasons that contributed to the shooting down of Flight MH 17 are the following:

As of April 2014, many shoot-down incidents started to happen in the Donbass area including helicopters, ground-attacking aircraft, and an Antonov-30. Consequently, the shooting down incidents were being a normalized procedure (Bennet, 2015)

Even though there had been multiple shoot-down cases, the airliners were still willing to fly above the warzone. Even though five airliners (Qantas, British Airways, Cathay Pacific, Korean Air, China Airlines) had decided to discontinue flying above Ukraine, some others like KLM and Malaysia did not take that decision. This fact was also permitted by the national governments. According to the Dutch Safety Board (2015, p.4, cited in Bennet, 2015), there was a concern in diplomatic and political circles regarding the armed conflict in Eastern Ukraine. However, none of them made a connection about the previous shooting down of military aircrafts and the possibility that this could happen to civil aircrafts as well. This decision was endorsed by the State Authority of Ukraine and the Ukrainian State Air Traffic Service Enterprise which determined that there is not any risk for commercial aircrafts to fly above the Donbas Region at altitudes above 32,000 feet (Bennet, 2015)

Another contributing element is the policies that Malaysia Airlines adopted after the loss of MH370. Already three years before the MH17, Malaysia's national carrier was facing financial problems. As consequence, their cost-cutting policies lead them to not perform adequate risk assessments. Also, the International Civil Aviation Organization (ICAO), Eurocontrol, and the European Civil Aviation Conference (ECAC) permitted with their policies airliners to fly above war zones(Bennet, 2015)

Finally, MH17 was planned to fly on airway L980. However, the aircraft had diverted 3,6 miles north of it due to bad weather conditions. This could have seemed suspicious to the crew that fired the missiles. Also, a pressurized aircraft like the Boeing 777 is very vulnerable to shrapnel, especially when it is released next to the cockpit as it happened with the SA-11 sharpnel (Bennet, 2015)

### **3.2 KAL007**

Korean Air 007 was a scheduled international flight between Anchorage, Alaska to Seoul, Korea on 1 September 1983. The aircraft performing the flight was a Boeing 747 carrying 240 passengers and 29 crew members. While flying above Russia, the aircraft was shot down. No one survived. After take-off, the flight followed its scheduled path but some time later it deviated from it and entered into Soviet Airspace.

According to Morgan (1985), the aircraft, while flying east of the Kamchatka peninsula, diverted off its assigned route and entered into Soviet airspace. After crossing Kamchatka, it left the Russian airspace and flew over the Okhotsk sea. As it was flying towards the Sakhalin island, the airplane re-entered the Soviet airspace. After passing above the island and was within few miles of exiting the Russian airspace, it was hit by an air-to-air missile fired from a soviet jet fighter at 3:26 local time. It lost altitude and crashed into the Sea of Japan within twelve minutes, killing all aboard.

After the crash, Russian military vessels started the research for the aircraft wreckage which was found two months later, alongside the two black boxes( the flight data recorder and the cockpit voice recorder). Even though the Russian investigators were able to analyze the data,

they kept them secret for ten years, until the collapse of the Soviet Union. Afterward, the data were handed over to the International Civil Aviation Organization and it was complete in 1993 (Asaf Degani, 2003).

The investigation concluded that the primary reason for the incident was the deviation from the scheduled flight path. The Soviet Union tried to justify the downing of the KAL 007 on two grounds (Morgan, 1985): the first had to do with the strategically sensitive areas of the Soviet Union during the Cold War. Therefore, according to Russians, the aircraft had failed to respond to warnings and instructions to land and there was fear that the aircraft was engaging in reconnaissance which leads to the second ground, that the aircraft could be a military reconnaissance plane. It should be mentioned here that the pilots of the KAL 007 had not responded to warnings by the soviet air forces and subsequently it was presumed that it was a spy plane. Also, they were unaware of the fact that they had deviated off their original flight path and had entered prohibited areas of the Soviet airspace. The downing of the KAL 007 led to severe tensions between the USA and the Soviet Union.

### 3.2.1 KAL007 Analysis

Similar to the MH17 case that was described above, the KAL 007 shooting down was not driven by a single factor. The causes lie on geopolitical and aviation-related reasons, as it happens with the majority of similar accidents.

The geopolitical factors that contributed to the shoot-down of KAL 007 were the following:

During the period that the incident occurred, the Soviet Union and the United States engaged in an advanced military research program by spending huge amounts of money. Since the two opponents couldn't engage in direct conflict due to the nature of the Cold War, they resorted to surveillance and intelligence methods which included border watching, and air and space surveillance. The ultimate goal of those methods was to monitor as close as possible the defense systems of the enemy (Pigelet, 2015)

During the 1970s and the 1980s, both superpowers were thoroughly scanning the airspace by using reconnaissance and planes and satellites. Also, during the early 1980s the United States was investing a vast amount of time by exploring the capabilities of the Soviet Radar on the Pacific Coast. This method could offer the opportunity to the US the timing and the extent to which the Soviet defense system could respond. Those methods can be explained by the fact that the Bering Strait is the closest point between the USA and the Soviet Union, therefore it is logical that it was closely monitored (Pigelet, 2015).

A crucial fact that explains why the KAL 007 was traced down is that the UAF radar station at Cape Newenham and Cape Romanzoff in Alaska were capable and required to trace down all the aircrafts that were flying towards the Russian Buffer Zone. One of their responsibilities was to warn the aircraft crew and air traffic controllers in case an aircraft was entering into prohibited areas (Pigelet, 2015)

Finally, according to Barth (1985), in the months that preceded the incident, the Soviet and US relations had reached a peak as the American president Ronald Reagan was seeking



internal support in order to avoid the possibility to unwillingly compromise regarding the arms control negotiations. This program was losing Congressional support as well. On the other hand, the discovery of a phased array radar in Krasnoyarsk in the summer of 1983 by a US reconnaissance plane could comprise a violation of the 1972 Anti-Ballistic Treaty.

The aviation-related reasons for the downing of KAL 007 are multiple and complex. This chapter will not examine thoroughly the technical aspects as they are too complicated for a simple reader with limited aviation knowledge.

The aircraft, as was flying above Sakhalin island, deviated 245 degrees off its scheduled path. This shift was not required by the air traffic controllers and the pilots were unaware of that deviation. Moreover, the aircraft drove towards the direction of an American military reconnaissance plane which was scrambled by the United States. It was an RC-135, four-engine commercial Boeing 707. The deviation of the KAL 007 confused the Soviet air defense personnel who mistook the Korean commercial flight for the RC-135 and this was enhanced by the fact that in the total darkness of the early morning, the aircraft could not be visually identified. The Soviet officials sent a fighter aircraft to monitor the KAL 007 and even though it sent warning bust, the Korean jumbo climbed from 33,000 to 35,000 feet, a fact that was considered suspicious (Degani, 2001)

### 3.3 IR655

The war between Iran and Iraq started in 1980 and lasted for 8 years when the second state invaded Iran for the apparent purpose of territorial acquisition (McCarthy,1991). It quickly escalated into violent armed conflict. Due to the geopolitical and strategic position of the area as well as the risks for the international trade and oil industry, the United States and other countries deployed military services in the area, including warships in an effort to stabilize and resolve the conflict. In July of 1988, there were numerous attacks between the American naval vessels which were trying to protect the neutral shipping and the Iranian military units, which were attacking neutral vessels and the American forces.

On 3 July 1988, the American vessel USS VINCENNES had fired against Iranian boats and afterward, it moved to the territorial sea of Iran. At that time, Iran Air Flight 655, a scheduled passenger flight from Tehran to Dubai via Bandar Abbas took off. It was operated by an Airbus 300 carrying 290 people. After the stopover in Bandar Abbas, the aircraft took off to Dubai with a delay of 20 minutes. Seven minutes later, the aircraft was hit by two surface-to-air missiles fired from the Vincennes vessel and crashed into the sea with no survivors. According to Sucharitkul ( 1994), that day no alert status was in effect.

Through this procedure, the air traffic controllers are notified of military activities that pose threats to civil aircrafts, and subsequently, there is no clearance given to aircrafts to fly through those areas. On that day, the American naval forces did not notify the air traffic controllers in Tehran and Bandar Abbas of any activities in the sea that could be threatening the safety of Iran Air 655. Vincennes had tried multiple times to make radio contact with the aircraft and after receiving no response, it was presumed to be an Iranian jet with hostile intentions and therefore it fired two missiles. One of them hit the aircraft killing all aboard.

### 3.3.1 IR 655 Analysis

Similar to the two aforementioned cases above, the shooting down of Iran Air 655 was the result of various geopolitical and aviation procedures. The most important geopolitical reasons are the following:

Iraq invaded Iran in 1980 with the apparent purpose of territorial acquisition. Soon the conflict shifted from land fights to sea clashes (McCarthy, 1991). Iraq proceeded to buy EXOCET missiles from France which gave the ability to the state to launch ship attacks. Consequently, Iraq started to attack Iranian oil tankers with the ultimate purpose to cause financial losses to Iran from the sale of oil to international markets. (McCarthy, 1991)

The response of Iran was to prevent the war supplies to reach Iraq through maritime commerce. For that reason, they threatened to shut down the Straits of Hormuz. Those threats were ignored by Iraq, so Iran resorted to employing small gunboats in order to disturb the merchant shipping. Those gunboats did not only fire against Iraqi targets but they also attacked neutral vessels belonging to various countries. (McCarthy, 1991). Moreover, built SILKWORM missile launching sites in order to fire at ships which were passing through the Straits of Hormuz with the capacity of reaching 50 miles as well as using its air force to conduct operations against shipping (McCarthy, 1991)

Since the international community is dependent to a great extent on the Gulf States for oil supply, it becomes crucial to the United States and other countries that they had to make efforts to stabilize the situation in that area. Therefore, they deployed warships and mine-sweepers. (McCarthy, 1991).

However, the tensions escalated dramatically when an Iraqi aircraft attacked mistakenly the US vessel Stark killing 37 American sailors. (McCarthy, 1991). Another crucial event was the US attack on two Oil Production Facilities and the sinking of three Iranian boats. The Iranian response was to send an F-4 to attack an American ship that was docked in that area. This boat, the WAINWRIGHT, was located in the same area where the VINCENNES shot down the IR 655 flight. Its immediate defense was to fire against the F-4 as the aircraft was not responding to repeated warnings. (McCarthy, 1991)

The aviation-related reasons that contributed to the downing of IR 655 were deployed as follows:

On the morning of 3 July 1988, the USS Vincennes was already engaging in clashes with speedboats in the Strait of Hormuz. At that time, and specifically at 09:47, flight 655 takes off with around 20 minutes delay. It was scheduled to fly at an altitude of 14,000 feet within the A59 air corridor. During the 7 minutes that the airbus 300 was in the air, it remained within the assigned path, with only a maximum of four miles deviation off its centerline (Linnan, 1991)

As soon as it took off, IR 655 was monitored by the Vincennes Combat Information Center (CIC). Even though the flight had been assigned the IFF Three Signal Mode, which concerns a civilian transponder signal, the crew on the ship attributed to the airbus the IFF Mode Two military signal which is a military transponder signal and it was used in the past by Iranian

F-14 aircrafts. Due to the fact that the IR 655 departed with a delay, the CIC crew of Vincennes was not able to identify the airbus as commercial aircraft (Linnan, 1991)

Two minutes later, the Vincennes issued a warning through the MAD frequency, however, the Airbus did not have the necessary equipment to receive that warning. Afterward, they proceeded to send a warning through the IAD frequency. This time the A300 had the ability to receive it. At this point, some personnel of the boat noticed that the aircraft was descending while its speed was increasing and they assumed it that this could be an attack dive. However, the data from the systems of the vessel showed that the aircraft was actually ascending and not descending. After the Vincennes crew reported to the commanding officer that they were being approached by an unidentified aircraft, he advised them to send again warnings before firing at it. The crew kept sending warnings to both IAD and MAD frequencies (Linnan, 1991)

Even though the personnel on another boat, the USS Sides, thought that it may be a commercial aircraft and identified it in the correct IFF Mode Three signal, the CIC crew on Vincennes failed to do so. Instead, they kept identifying the aircraft as unknown and when it was at 12, 000 feet and climbing, they issued a last warning of the MAD frequency. At 9:54, only seven minutes after take off, IR655 was hit by the missiles fired from Vincennes at an altitude of 13,500 feet and being eight nautical miles away from Vincennes (Linnan, 1991)

## Chapter 4: Comparative Analysis

Chapter 3 described the chain of events that have driven the three shooting down cases of MH17, KAL007 and IR655 and they were separated into two subcategories: the geopolitical context that contributed to the downing of the flights and the reasons that had to do with the aviation procedures of the flights. This chapter will attempt to answer the sub-questions 2, 2b, and 3.

Sub-question 2 asks ‘What are the main mechanisms that have driven the 3 cases’. Those mechanisms were analyzed in the previous chapter. Here, I will continue by analyzing the mechanisms in the context of the three models that Graham Allison employed in order to explain the Cuban Missile Crisis. The purpose of that chapter is to categorize every mechanism according to the model that optimally explains it. I will begin with classifying every mechanism into a model and then I will make a comparison by choosing which one explains the incident better.

### 1. MH 17 case:

Model I	Model II	Model III
<p>Basic Assumptions: The events in foreign affairs are understood as actions selected by the nation or the national governments and this choice serves to maximize the strategic goals and the objectives.</p>	<p>Basic Assumptions: The occurrences in international politics are, in three critical contexts, outputs of organizational processes. The first is that actual events are organizational outputs. The government decisions establish organizational routines and their behavior is determined by prior established procedures. Secondly, the government leaders, when facing threats, can select from a wide range of effective physical equipment. Third, the organizational outputs determine the situation in which, within narrow constraints, the leader must decide about an issue.</p>	<p>The decision and actions that every government takes intra-national political resultants. The concept of ‘resultants’ is translated into the fact that the events regarding a problem are not chosen as solutions but rather they result from compromises, conflicts and confusion between officials with contradictory interests and unequal influence. On the other side, the concept of ‘political’ stands for that activity from which the decisions are derived and it can be suitably characterized as a bargaining process on standardized channels between individual members of the governments</p>

<p><i>Elements of MH 17 according to the Model I:</i></p> <ul style="list-style-type: none"> <li>- The United States, the European Union and Russia transformed the Crimean regional war into a powerful proxy-war.</li> <li>-The historical imperialistic tendencies of Russia which places intermediary countries like Ukraine under great pressure. The desire to influence and control the neighboring western countries dates back to the USSR collapse</li> <li>-The turbulent relations between Russia and the West which started during the Cold War and remained disturbed during the Ukrainian war as well.</li> <li>-The decision of the Russian President to unite the Russian diaspora which is called 'rusски mir' and counts 25 million people</li> </ul>	<p><i>Elements of MH17 according to the Model II:</i></p> <ul style="list-style-type: none"> <li>-The disproportionate and conflicting views and aspirations of the Pro-West Ukrainians and the pro-Russian rebels.</li> <li>-The decision of the Ukrainian Parliament to terminate the 2012 law on state language policy which enabled Ukraine's regions to adopt other languages except for Ukrainian if they were spoken by over 10% of the local population. As result, thirteen out of 27 Ukrainian regions adopted Russian as the second official language which led them to clinch more towards Russia.</li> <li>-As of April 2014, many shooting down incidents started to happen in the Donbass area including helicopters, ground-attacking aircraft and an Antonov-30. Consequently, the shooting down incidents were being a normalized procedure.</li> <li>-MH17 was planned to fly on airway L980. However, the aircraft had diverted 3,6 miles north of it due to bad weather conditions. This could have seemed suspicious to the crew that fired the missile.</li> <li>-The willingness of airliners to fly above warzones.</li> </ul>	<p><i>Elements of MH17 according to the model III:</i></p> <ul style="list-style-type: none"> <li>- The perception of the Euromaidan that the Ukrainian President Victor Yanukovych, who was supported by Putin, was leading a corrupt regime. The Euromaidan was a mass protest movement that took place between November 2013 and February 2014 when Yanukovych delayed the signing of the European Union Association Agreement</li> <li>-The willingness of the governments to permit to fly above warzones</li> <li>-The risk evaluation of the State Authority of Ukraine and the Ukrainian State Air Traffic Service Enterprise which determined that there is no risk for commercial aircrafts to fly above the Donbass Region at altitudes above 32,000 feet</li> </ul>
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	<p>-The policies that Malaysia Airlines adopted after the loss of MH370.</p> <p>-The risk evaluation of the State Authority of Ukraine and the Ukrainian State Air Traffic Service Enterprise which determined that there is no risk for commercial aircrafts to fly above the Donbass Region at altitudes above 32,000 feet</p>	
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The above section categorized every mechanism that contributed to the shoot-down of MH17 into the model that can explain it better. The rational actor model encompasses four important elements, which mainly describe the reasons that contributed to the escalation of the Ukrainian-Russian conflict into a war. However, those elements are not adequate to justify and explain the decision of the Russian pro-rebels to shoot-down the Malaysian Aircraft. Rather, a more satisfactory explanation is offered by the Organizational Process Model as the crucial elements that contributed to the downing of MH 17 are found in that model. Specifically, the fact that the shooting-downs had been normalized due to the incidents that happened before the MH17, the diversion of the aircraft off its scheduled path, the policies of airliners and the air traffic controllers that allowed commercial aircrafts to fly above warzones were the decisive elements that determined the fate of MH17.

## 2.KAL 007 Analysis

Model I	Model II	Model III
<p>Basic Assumptions: The events in foreign affairs are understood as actions selected by the nation or the national governments and this choice serves to maximize the strategic goals and the objectives</p>	<p>Basic Assumptions: The occurrences in international politics are, in three critical contexts, outputs of organizational processes. The first is that actual events are organizational outputs. The government decisions establish organizational routines and their behavior is determined by prior established procedures. Secondly, the government leaders, when facing threats, can select from a wide range</p>	<p>The decision and actions that every government takes intra-national political resultants. The concept of 'resultants' is translated into the fact that the events regarding a problem are not chosen as solution but rather they result from compromises, conflicts, and confusion between officials with contradictory interests and unequal influence. On the other side, the concept of 'political' stands for that activity from which the</p>

	<p>of effective physical equipment. Third, the organizational outputs determine the situation in which, within narrow constraints, the leader must decide about an issue.</p>	<p>decisions are derived and it can be suitably characterized as a bargaining process on standardized channels between individual members of the governments</p>
<p><i>Elements of KAL 007 according to the Model I</i></p> <ul style="list-style-type: none"> <li>- the Soviet Union and the United States engaged in an advanced military research program by spending huge amounts of money.</li> <li>- Since the two opponents couldn't engage in direct conflict due to the nature of the Cold War, they resorted to surveillance and intelligence methods which included border watching, and air and space surveillance</li> <li>- During the 1970s and the 1980s, both superpowers were thoroughly scanning the airspace by using reconnaissance and planes and satellites.</li> <li>- During the early 1980s the United States was investing a vast amount of time by exploring the capabilities of the Soviet Radar on the Pacific Coast</li> <li>- The UAF radar station at Cape Newenham and Cape Romanzoff in Alaska were capable and required to trace down all the aircrafts that were flying towards the Russian Buffer Zone.</li> <li>- In the summer of 1983, an US reconnaissance satellite discovered a phased array</li> </ul>		<p><i>Elements of KAL 007 according to the Model III</i></p> <ul style="list-style-type: none"> <li>-American president Ronald Reagan was seeking internal support in order to avoid the possibility to unwillingly compromise regarding the arms control negotiations. This program was losing Congressional support as well</li> </ul>

radar in Krasnoyarsk which could comprise a violation of the 1972 Anti- Ballistic Missile Treaty		
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This part categorized the mechanisms that led to the shooting down of Korean Air Flight 007. As it can be observed, the majority of the reasons are classified into the rational actor model. The Cold War, which was the competition between the USSR and the USSA, incorporates all the basic elements of the Rational Actor Model, namely that the nations takes decisions that will maximize their interests. In that case, the basic interest of both nations was to defend their countries. That is the reason that they proceeded to actions such as investing a huge amount of money into intelligence and surveillance methods. Their ultimate goal is to ensure their national security which is their main strategic problem and the resort to those advanced methods was a calculated solution.

### 3.IR 655 Analysis

Model I	Model II	Model III
<p>Basic Assumptions: The events in foreign affairs are understood as actions selected by the nation or the national governments and this choice serves to maximize the strategic goals and the objectives</p>	<p>Basic Assumptions: The occurrences in international politics are, in three critical contexts, outputs of organizational processes. The first is that actual events are organizational outputs. The government decisions establish organizational routines and their behavior is determined by prior established procedures. Secondly, the government leaders, when facing threats, can select from a wide range of effective physical equipment. Third, the organizational outputs determine the situation in which, within narrow constraints, the leader must decide about an issue.</p>	<p>The decision and actions that every government takes intra-national political resultants. The concept of 'resultants' is translated into the fact that the events regarding a problem are not chosen as solutions but rather they result from compromises, conflicts, and confusion between officials with contradictory interests and unequal influence. On the other side, the concept of 'political' stands for that activity from which the decisions are derived and it can be suitably characterized as a bargaining process on standardized channels between individual members of the governments</p>
<p><i>Elements of IR655 according to the Model I</i></p> <p>- The invasion of Iran by Iraq for territorial possession</p>	<p><i>Elements of IR655 according to the Model II</i></p> <p>- Iraq bought EXOCET missiles from France which</p>	<p><i>Elements of IR655 according to the Model III</i></p> <p>-The attribution of the IFF Mode Two Military signal</p>



<p>- The shift of the conflict from land fights to sea clashes.</p>	<p>gave the ability to the state to launch ship attacks. Consequently, Iraq started to attack Iranian oil tankers with the ultimate purpose to cause financial losses to Iran from the sale of oil to international markets</p> <p>- Iran tried to prevent the war supplied to reach Iraq through maritime commerce. For that reason, the threatened to shut down the Straits of Hormuz</p> <p>- Iran resorted to employing small gunboats in order to disturb the merchant shipping.</p> <p>-Those gunboats did not only fire against Iraqi targets but they also attacked neutral vessels belonging to various countries.</p> <p>-Iran built SILKWORM missile launching sites in order to fire at ships which were passing through the Straits of Hormuz with the capacity of reaching 50 miles</p> <p>-Iran was also using its air force to conduct operations against shipping Since the international community is dependent to a great extent on the Gulf States for oil supply, it becomes crucial to the United States and other countries that they had to make efforts to stabilize the situation in that area. Therefore, they deployed warships and mine-sweepers</p>	<p>instead of IFF Mode Three Commercial Signal Mode</p> <p>-The flight departed with 18 minutes delay, therefore the CIC crew failed to identify it as a commercial flight</p> <p>-Vincennes was sending warnings on the MAD frequency but the aircraft did not have the necessary equipment to receive them.</p> <p>-some personnel of the boat noticed that the aircraft was descending while its speed was increasing and they assumed it that this could be an attack dive. However, the data from the systems of the vessel showed that the aircraft was actually ascending and not descending</p>
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	<p>-The tensions escalated dramatically when an Iraqi aircraft attacked mistakenly the US vessel Stark killing 37 American sailors</p> <p>-the US attack on two Oil Production Facilities and the sinking of three Iranian boats. The Iranian response was to send an F-4 to attack on an American ship that was docked in that area.</p>	
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From the classification above, it can be observed that the models that explain better the shooting –down of Iran Air Flight 655 are the Organizational Process Model and the Bureaucratic Model. The Model II incorporates all the physical and technical methods that the two countries employed in order to combat each other. They resorted to buying missiles and boats in order to destroy oil facilities and interrupt the merchant system. As model II states, when the leaders face a threat, they can select from a wide range of physical equipment. On the other hand, the Bureaucratic Model (Model III) explains optimally the series of events that led the crew of Vincennes to shoot-down the aircraft. One of the main assumptions of this model is that the events regarding a problem are not chosen as solutions but rather they result from compromises, conflicts, and confusion between officials with contradictory interests and unequal influence. This explains in a clear way the background of the decision. The confusion of the Vincennes CIC crew regarding the unidentified aircraft, their conflict with the USS Sides crew who had realized that it was a civil aircraft as well as their compromise to shoot it down despite that fact that they were not sure about its intentions, are the crucial elements that lead to the downing of the aircraft.

***Answer to research questions 2B and 3***

The research question 2B asks: ‘ What mechanisms do the three cases have in common and what are the differences’. Here I will proceed to provide an answer regarding the similarities and the differences that the three cases have.

The main mechanism that is encountered in all three cases is the conflict between two states, therefore the war is their common element. However, there is a major difference between the MH17 and IR 655 cases with the KAL 007, which is the fact that the Cold War was never escalated into an armed and direct conflict. Rather, it was a rivalry between the two superpowers, namely the Soviet Union and the United States of America.

The imperialistic tendencies of Russia are an element that is present in both MH17 and KAL 007 cases, as it led to the Russian-Ukrainian and Soviet-American conflict respectively. This factor is prevalent in the IR 655 case as well, as the imperialistic tendency of Iraq led to the invasion in Iran with the apparent purpose of territorial acquisition.

Another common mechanism between the MH17 and KAL 007 cases is the turbulent relations between Russia and the West that started during the Cold War, when the KAL 007 flight was shot-down and remain disturbed during the Russian-Ukrainian conflict as well as when the MH17 was downed.

The involvement of third parties in a conflict between two states is a mutual fact that is encountered on MH17 and IR 655. Specifically, the United States and European Union got involved in the conflict between Russia and Ukraine on the one hand and the United States intervened in the Iran-Iraq war on the other. Another striking fact that the two cases share is that the downing of those commercial flights was preceded by shooting-down attacks on other aircrafts, mainly military.

Similarly, the use of advanced technology and weapons is a common feature shared by the KAL 007 and IR 655 where the countries resorted to employing state of the art missiles and surveillance methods in order to monitor the enemy (KAL 007) and to destroy its infrastructure (IR 655)

Regarding the aviation-related reasons, both MH17 and KAL007 deviated off their scheduled path, leading the air traffic crew to suspect that it could be a hostile plane. IR 655 on the other hand remained within its assigned corridor. The element that seemed suspicious to the crew is that the aircraft looked like it was descending while increasing its speed. This theory, however, was disproved by the data system of the Vincennes vessels. Finally, a common element between the three cases is that all of the airplanes received warnings before being hit by the missiles, but those warnings were dismissed.

Research question 3 asked: 'Which mechanisms do the three cases have in common and what are the differences'. This section will provide an answer to this sub-question by identifying similarities and differences between the mechanisms that have driven the Cuban Missile Crisis and the shootdown of MH17, KAL 007, and IR 655.

To begin with, the main element of those four cases is again the conflict between two states. The Cuban Crisis was the escalation of the rivalry between the Soviet Union and the United States of America. As it was discussed above, this confrontation was never escalated into an armed conflict. Instead, the two superpowers were contesting and monitoring each other. This rivalry was intensified and reached a peak during the crisis of October 1962 when the two superpowers were ready to engage in a nuclear war. Thankfully, this was avoided eventually. A main difference, however, is the fact that the Cuban Missile Crisis did not escalate into an armed war as it happened with the Russian-Ukrainian and the Irani-Iraqi war.

Another common component was the involving parties. The Cuban Missile Crisis and KAL 007 share the same background history, or in other words, the Cold War was the fundamental factor that directed the events into that escalation. The Soviet Union may not exist anymore but Russia, its strongest country, was also involved in the downing of MH17.

Similar to the establishment of ballistic missiles in Cuba in the 1960s, the Soviet Union had resorted to advanced technological methods in the 1980s. As it was seen above, the country had installed intelligence tools such as radars and satellites

The shooting-down was a seminal event not only for the three cases that have been analyzed here but also for the Cuban Crisis as the Soviets shot-down an U-2 American reconnaissance plane which was scrambled to take photos of the missile that were placed in Cuba. Therefore, it can be observed that the shooting down incidents can be used as a method that countries employ in order to defend their national security.

## Chapter 5: Conclusion

Answer to the main research question

This master thesis attempted to explain three major commercial shooting-down incidents by identifying the mechanisms that lead to this event and comparing them with the Cuban Missile Crisis. It was observed that every incident is multi-dimensional and incorporates various reasons. Nevertheless, there are some common fundamental elements behind every case. The main research question was '*how can the process that led to the shooting down of the MH17, KAL 007, IR655 be explained according to Graham Allison's theory of crisis decision making and escalation of international conflict?*' It was observed that there is an analogy in the escalation of the Cuban Missile Crisis and the escalation before the downing of a commercial aircraft. Specifically, the nation-states proceed to engage in conflict when their national interests and mainly the national security are at stake. Moreover, the three models that Graham Allison utilized to explain the missile crisis in Cuba were used in order to explain the mechanisms that led to the downing of the aircrafts. Their elements were classified into the Rational Actor Model, the Organizational Process Model, and the Bureaucratic Model, and analysis was provided regarding the model that explains optimally MH17, KAL007, and IR655. However, every mechanism can be classified into more than one model as this distribution cannot be unambiguous. This classification was made according to an optimal explanation.

However, it should be noted that there is a significant difference between the Cuban Missile Crisis and the three shooting down incidents: the conflict in Cuba was never escalated into an armed war. In the end, the direct nuclear confrontation was avoided. In contrast, the crisis that took place in the three incidents when the officials realized that were being threatened by an aircraft was escalated into direct confrontation: the aircrafts were shot-down before they could pose a menace to their security.

Limitations

It is worth mentioning that there does not exist a completely clear and unanimous answer to the question '*why a country proceeds to shoot-down a commercial aircraft*'. The reasons are multiple and complex and their nature lies in the national interests of every country, the confusion and uncertainty that officials face during a crisis, and the lack of adequate measurements that airliners take when it comes to fly above warzones. Moreover, as it was observed above, the mechanisms that contributed to the shooting down of the aircrafts can be classified into more than one category making their distinction vague. Another limitation is derived from the fact that the three flights are compared to a single case, which leads to over representativeness and possible to a confirmation bias vulnerability. Also, the limited data that are revealed to the public from the part of the officials and the states that were involved in the shooting-down incidents do not unfold all the chain of events that preceded the decision in an effort to deny their responsibility. Finally, the three shooting-down cases were compared to a single theory of crisis decision making, which implicates the generalization of the results on a broader number of cases.

Suggestions for future research and practice:

Future research could focus on the specific factors that lead to the shooting down of an aircraft based on more models than a single crisis decision-making theory. These models could incorporate elements from various fields such as psychology, international relations, public administration, diplomacy. Future practice could concern new policies by the ICAO, the national states and the airliners regarding flight permission above warzones or countries that are in conflict.

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