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War, Security and Emerging Technologies.

I Drone, You Drown.

The Deployment of Drones by Italian Authorities in the
Lampedusa Refugee Crisis between 2013 and 2018.

Author:

Allegra Salvadori

8855396

Supervisor:

Dr. Fabio Cristiano

Second Reader:

Dr. Iva Vukušić

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ABSTRACT

This thesis analyses the use of drones by Italian authorities to manage the refugee crisis in Lampedusa between 2013 and 2018, focusing on the logics of technological capability, humanitarianism, and securitisation. Lampedusa, a small Italian island located two hundred kilometres from Sicily and about one hundred kilometres from Tunisia, has become a focal point of the Mediterranean refugee crisis, witnessing significant humanitarian tragedies, such as the October 2013 shipwreck that resulted in over 360 deaths. By examining operations such as Mare Nostrum, a large-scale search and rescue mission, Frontex's Triton, a border control initiative, Eunavfor Med Sophia and Frontex's Themis, this study explores how drones, as technological tools, are shaped by their users' intentions and the socio-political context in which they are deployed.

Employing a qualitative case study approach, this research utilizes secondary sources, including newspaper articles, policy documents, government transcripts, and reports, to form a comprehensive data corpus. The analysis identifies three primary logics governing the use of drones in this context: technological capability, humanitarian assistance, and securitisation. The study aims to determine which of these logics primarily drives the deployment of drones. This research contributes to the broader discourse on the intersection of technology, humanitarian efforts, and security operations, emphasizing the need to understand the complex interplay of these factors in managing the refugee crisis.

Keywords: drones, technological capability, humanitarianism, securitisation, Lampedusa, Italy, Europe, Frontex.

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ACRONYMS

AOC	Air Operation Centre
COM	Military Organization Code
DPR	Presidential Decree
EU	European Union
EUNAVFOR	European Union Naval Force in the South Central Mediterranean (Operation Sophia)
EUROSUR	European Border Surveillance System
FRONTEX	European Border and Coast Guard Agency
JO	Joint Operations
IMO	International Maritime Organisation
ISR	Intelligence, Surveillance, and Reconnaissance
LYCG	Libyan Coast Guard
MIT	Ministry of Infrastructure and Transport
MRCC	Maritime Rescue Coordination Centre
NATO	The North Atlantic Treaty Organization
NGO	Non-governmental Organisation
RPA	Remotely Piloted Aircraft
Refugee Convention	1951 Convention Relating to the Status of Refugees
SAR	International Convention on maritime search and rescue
UAV	Unmanned Aerial Vehicles
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
VCLT	Vienna Convention on the Law of Treaties

“...Once they left their homeland they remained homeless, once they left their state they became stateless; once they were deprived of their human rights they were rightless, the scum of the earth.”¹

¹ Hannah Arendt, *The Origins of Totalitarianism* (New York, Harcourt, 1951), 5.

INTRODUCTION

At 2 am on October 3, 2013, an overcrowded fishing vessel carrying Eritrean and Somali asylum seekers approached the Italian island of Lampedusa, with the harbour lights visible less than a kilometre away.² The engine ceased to function, leaving the boat adrift. A nearby fishing boat passed the stranded vessel and continued towards Lampedusa, with its crew later claiming ignorance of the distress signals. Another boat similarly failed to assist. Approximately two hours later, the Tunisian smuggler captain ignited a petrol-soaked cloth to make the fishing boat visible. However, the flames rapidly spread to the foredeck, igniting the spilled fuel and precipitating one of the deadliest maritime disasters in the Mediterranean since World War II. The 18-meter fishing vessel was overcrowded with at least 520 individuals, many of whom were confined to the hold while others were on deck. The engine failure and subsequent fire incited panic, causing many passengers to be pushed into the sea as they endeavoured to escape the flames.³

At 7 am on October 3, 2013, the Lampedusa coast guard issued an alarm for a vessel in distress meanwhile in New York, European Commissioner for Home Affairs Cecilia Malmström received a call from Italian Interior Minister Angelino Alfano about the disaster.⁴ Six days later, Malmström, along with Italian Prime Minister Enrico Letta and European Commission President José Manuel Barroso, visited Lampedusa, where protesters and rows of coffins met them. At a press conference, Barroso vowed that such tragedies must never happen again.⁵ In response, Malmström developed a comprehensive three-part strategy involving Frontex, the European Border and Coast Guard Agency, “a centre of excellence for EU external border control activities, sharing information and expertise with all Member States and neighbouring third countries affected by migratory trends and cross-border crime.”⁶ The strategy entailed enhanced surveillance, the implementation of rescue operations, and the establishment of safe pathways for refugees to reach Europe.⁷

² Zed Nelson, “Lampedusa boat tragedy: A survivor’s story”, *The Guardian*, March 22, 2014, <https://www.theguardian.com/world/2014/mar/22/lampedusa-boat-tragedy-migrants-africa>.

³ Pierluigi Bizzini, Nora Börding, Paul Hildebrandt, Eva Hoffmann, Simon Langemann, Helena Lea Manhartsberger, Sarah Mersch, Anina Ritscher, Anna-Theresa Bachmann, Ann Esswein, “Ten Years After Lampedusa: Why Can’t Europe Find an Answer to the Deaths?”, *European Press Prize*, June 2023, <https://www.europeanpressprize.com/article/ten-years-after-lampedusa-why-cant-europe-find-an-answer-to-the-deaths/>.

⁴ Bizzini et al, “Ten Years After Lampedusa”.

⁵ Bizzini et al, “Ten Years After Lampedusa”.

⁶ “About Frontex”, *Frontex*, accessed May 19, 2024, <https://www.frontex.europa.eu/about-frontex/who-we-are/tasks-mission/>.

⁷ Bizzini et al, “Ten Years After Lampedusa”.

On October 16, 2013, Malmström presented her plan to the European Commission, where it garnered substantial support, though concrete actions and commitments did not promptly materialise.⁸ This was not the first instance of the EU failing to support Italy; in 2011, amid increasing inflows triggered by the so-called Arab Spring, with sea arrivals growing from 4,400 in 2010 to 62,700 in 2011, the Italian government sought to elevate the emergency to a European level.⁹ The European Commission, however, framed the crisis as an ordinary influx of irregular migrants, and did not support Italy's request for the activation of the exceptional temporary protection measures. Instead, they opted for providing financial and technical aid, urging Italy to strengthen its border-control measures.¹⁰

Consequently, on October 18, 2013, under significant pressure from the ongoing crisis, Italy declared a humanitarian emergency and initiated Operation Mare Nostrum.¹¹ Characterised as a "military-humanitarian" effort, this operation was specifically designed to rescue migrants in peril at sea.¹² While rescue operations in the Mediterranean Sea had predominantly relied on ships, with aircraft used to locate vessels in distress, Italian authorities, for the first time, integrated drones into the technical equipment of a save and rescue operation.¹³

Therefore, this study seeks to answer the following research question: What logic inspired the use of drones by Italian authorities to manage the refugee crisis in Lampedusa between 2013 and 2018?

The use of technology by Italian authorities to manage the migration flows arriving in Lampedusa reveals two fundamental aspects. First, these developments occurred within an area of 20 km², located 113 km from the Tunisian coast, 150 km from Malta, and 205 km from the Sicilian coast: Lampedusa. This exceptional position, "where Italy ends and where Africa begins"¹⁴, is not just a geographic location nor a border: the strategic position of the island inevitably transforms it into a symbol of migration management¹⁵. Lampedusa, therefore,

⁸ Bizzini et al, "Ten Years After Lampedusa".

⁹ Irene Ponzio, "Looking Into Policy Change: How the Italian Asylum Regime Came of Age" in *Migration Control Logics and Strategies in Europe* ed. Claudia Finotelli, Irene Ponzio, (IMISCOE Research Series, Springer, Cham, 2023), 289, https://doi.org/10.1007/978-3-031-26002-5_15.

¹⁰ Ponzio, "Looking Into Policy Change", 289.

¹¹ "Mare Nostrum Operation", Marina Militare, accessed July 11, 2024, <https://www.marina.difesa.it/EN/operations/Pagine/MareNostrum.aspx>.

¹² Martina Tazzioli, "Border displacements. Challenging the politics of rescue between Mare Nostrum and Triton", *Migration Studies*, Volume 4, Issue 1 (March 2016): 1–19, <https://doi.org/10.1093/migration/mnv042>.

¹³ Luisa Marin, "The deployment of drone technology in border surveillance", in *The Future of Drone Use : Opportunities and Threats from Ethical and Legal Perspectives* (The Hague, Berlin: Asser Press ; Springer, 2016), 107-122.

¹⁴ Caroline Moorehead, *Human Cargo: A Journey Among Refugees* (London: Chatto & Windus, 2005), 108.

¹⁵ The term "migration management" is commonly used by institutions like the EU to refer to a broad range of activities related to human mobility, including refugees and other migrants. Despite the distinction between the terms "migrant" and "refugee", this thesis will use them interchangeably. Migration management encompasses

becomes a microcosm through which it is possible to study how states manage migration, balance security with human rights, and respond to international pressures. In the words of Alison Mountz, it is one of many “stateless spaces”¹⁶, where the Sicilian Channel, the body of water between Sicily and North Africa, effectively functions as an external border of the European Union (EU).¹⁷ The situation of the island encapsulates the complexities and challenges of modern migration crises. Understanding Lampedusa's role in this context is crucial for grasping the broader implications of Italy's response to the refugee crisis.

The decision to concentrate on the period between 2013 and 2018 corresponds to significant developments in drone technology and pivotal moments in the refugee crisis. In 2013, the tragic shipwreck near Lampedusa highlighted the urgent need for an effective migration management strategy leading to the launch of Operation Mare Nostrum and a shift in technological deployment. This period also saw the implementation of other key operations such as Triton, Sophia, and Themis, each involving various actors in the effort to manage the refugee crisis. Focusing on these years allows for a comprehensive analysis of how drone technology has been used to address the challenges posed by migration in Lampedusa.

Secondly, immediately after the shipwreck of October 3, Italy chose to proceed autonomously without waiting for full support from Europe, demonstrating technological and strategical readiness, to take this innovative step. The integration of drones, a technology generally considered military and used in war contexts, into humanitarian rescue operations represents a significant choice. This shift highlights a contradictory situation: while drones are typically associated with military functions, their development and application in non-military contexts reveal a dual nature. On the one hand, drones have "life-giving" functions, such as search and rescue operations, humanitarian aid or assistance, and environmental monitoring, where they help save lives and offer essential support. On the other hand, drones also have "life-taking" functions, such as their use in military operations for targeted killings and surveillance that can lead to loss of life. This dual capability of drones to both save and take

the reception, processing, and integration of all types of migrants, but refugees have distinct legal protections and needs under international law. In international law, the term refugee refers to persons who “owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable to, or owing to such fear, unwilling to avail himself of the protection of that country, or who, not having a nationality and being outside the country of his former residence as a result of such events, is unable or, owing to such fear, unwilling to return to it”. Who is a “Refugee”? Refugee Definitions and Meaning, UNHCR, Accessed June 10, 2024, <https://www.unhcr.org/refugees> and Who is a “Migrant”? IOM Definition of “Migrant”, IOM, Accessed on June 10, 2024, <https://www.iom.int/who-migrant-0>.

¹⁶ Alison Mountz, *Seeking Asylum: Human Smuggling and Bureaucracy at the Border* (Minneapolis: University of Minnesota Press, 2010) 129.

¹⁷ Timothy Raeymaekers, “Introduction Europe’s Bleeding Border and the Mediterranean as a Relational Space”, *ACME: An International Journal for Critical Geographies*, 13(2) (2015): 163–172, <https://acme-journal.org/index.php/acme/article/view/1002>.

lives at the same time is what constitutes the technological paradox. This paradox becomes even more pronounced as drones, once predominantly linked to military operations, are increasingly being adapted for civilian and humanitarian purposes. Yet, in 2014, Europe began joint operations to help Italy manage the refugee crisis, marking a significant shift in the approach. This included the deployment of Italian drones under different operational logics.

Given the complex interplay, it is essential to closely examine the logics informing the deployment of drones by Italian authorities to uncover if there are any underlying motivations and rationales. Understanding these motivations and rationales requires looking beyond the technical aspects and considering the narratives and language used to justify and promote the use of drones. This examination can be enriched by considering the role of discourse. Discourse, as defined by Fairclough and Norman, refers to how language and narratives shape and are shaped by social practices.¹⁸ In the context of drone deployment, discourses can frame the use of technology in various ways, for instance, drones can be framed as essential tools for humanitarian assistance or as necessary measures for border security. By considering these discourses, this study aims to uncover the complex interplay between different logics and how they inform the decisions of Italian authorities in managing the refugee crisis in Lampedusa.

Previous studies have mainly focused on the technical capabilities of drones, their humanitarian applications, their use in border security, and the ethical aspects of employing this technology on refugees. However, no research has comprehensively examined which logics prevailed in the Italian context and if these could intersect, how, or when. This gap in the literature indicates a need to explore how different discourses and logics intersect and inform the deployment of drones by Italian authorities. This oversight is problematic because it ignores the complex factors influencing drone deployment decisions, potentially leading to an incomplete understanding of the underlying dynamics. Addressing this gap is crucial for understanding the decision-making processes behind the use of drones in managing the refugee crisis.

To comprehensively address the primary research question, the following sub-questions are also explored: What is the historical and strategic significance of Lampedusa concerning migration and how have operations on the island evolved in response to the Mediterranean refugee crisis? How has drone technology evolved from military to dual-use, humanitarian, and surveillance applications? What theories will help me analyse the relationship between technology and migration? What were the primary motivations behind the deployment of

¹⁸ Norman Fairclough, "Introduction", in *Critical Discourse Analysis : The Critical Study of Language*, 2nd ed. Hoboken (Taylor and Francis, 2013),1-20, http://www.123library.org/book_details/?id=109941.

drones in operations like Mare Nostrum, Triton, Sophia and Themis? How did the perception of technological solutions as essential tools shape the use of drones in managing the refugee crisis? What humanitarian objectives drove the use of drones in these operations? In what ways did the use of drones reflect broader security strategies and considerations in managing the refugee crisis? Do different logics coexist and intersect in managing of the refugee crisis in Lampedusa? If so, how and when?

Because of its focus on Lampedusa, this thesis will employ a single case study approach. Robert Yin defines a case study as “an empirical enquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident”.¹⁹ Through a qualitative research method, a case study methodology on Lampedusa offers a detailed, empirically rich, and comprehensive perspective on the deployment of drones by Italian authorities to manage the refugee crisis. Single case study analysis has, however, its limitations. The primary concern with using a single case study as a methodology is that it is too context specific. The issue is whether the findings from that one specific case can be generalized or applied to other situations beyond the unique circumstances of that particular case. While the detailed and in-depth analysis of Lampedusa provides valuable insights, the context-specific findings might not fully capture the broader dynamics of migration management in different settings. Despite its limitations, a single case study can illuminate key processes and patterns that might be applicable in other contexts, providing a foundation for further comparative research. Thus, while recognising its limitations, this methodological approach remains valuable for its ability to explore the specificities and complexities of the Lampedusa case deeply.

The study employs a qualitative approach with a deductive method, utilising a rich variety of data sources such as archival data, survey findings, photographs, newspaper articles, policy documents, governmental transcripts, and reports to form a comprehensive data corpus. While the primary methodology does not include a formal discourse analysis, the concept of discourse is employed as a critical lens to interpret and understand the underlying motivations and narratives that inform the deployment of drones. The sources were selected based on their relevance, reliability, and ability to provide diverse perspectives on the topic. Through careful review and analysis of them, the study identified and interpreted patterns and themes related to the deployment of drones. This process revealed three primary logics of using of drones in Lampedusa to manage the refugee crisis: technological capability, humanitarianism, and securitisation. Technological capability focuses on the value and importance that is attributed

¹⁹ Robert K. Yin, *Case Study Research : Design and Methods* (Thousand Oaks, California: SAGE, 2014), 18.

to technology. It examines how the state or authorities rationalise the deployment of drones by highlighting their advanced technological features and potential benefits.²⁰ Humanitarianism examines the use of drones from a humanitarian perspective.²¹ States often justify the use of drones by highlighting their potential to save lives and provide assistance. Securitisation frames migration as a security issue, leading to the use of drones for border surveillance and control.²²

Although these logics reflect distinct approaches, they are all embodied by the same technology – drones. This versatility arises from the fact that technological tools like drones are not merely technical instruments; they are also socially constructed and deeply political. The concept of social construction means that the development, use, and understanding of technology are shaped by social, cultural, and political factors rather than being purely driven by technical or functional considerations. Consequently, drones can embody different logics, including humanitarian assistance, border security, and military applications. This demonstrates the intricate relationship between their technical functions and the socio-political environments in which they operate. Exploring the social construction of technology involves examining how technology shapes and is shaped by social relations, structures, and behaviours, regardless of whether those outcomes are perceived as positive or negative. By adopting a social constructivist perspective, this thesis emphasises the importance of understanding technologies like drones within their broader social and political contexts.

Considering that the analysis of data revealed three primary logics inherent in the deployment of drones by Italian authorities to manage the refugee crisis in Lampedusa, the theoretical framework guiding this study is designed to explore these aspects comprehensively. The identified logics serve as the foundation for selecting the theoretical frameworks, with each framework corresponding to a specific logic. This alignment facilitates a detailed exploration of the technological, humanitarian, and security dimensions of drone deployment in this context. Technological capability focuses on the advancements and applications of drone technology. Humanitarianism examines the ethical and practical use of drones in saving lives and providing assistance. Securitisation explores how drones are used to manage perceived threats and control borders. This study will elaborate on how these frameworks facilitate the dialogue between empirical data and broader theories, providing a comprehensive

²⁰ Johan Eriksson and Lindy M. Newlove-Eriksson, “Theorizing technology and international relations: prevailing perspectives and new horizons”, *Technology and International Relations* ed. Giampiero Giacomello, Francesco N. Moro, and Marco Valigi (Edward Elgar Publishing Limited, 2021): 1-22.

²¹ Tommaso Martini, M. Lynch, A. Weavervan, T. Vuuren, “The Humanitarian Use of Drones as an Emerging Technology for Emerging Needs”, *The Future of Drone Use. Information Technology and Law Series*, vol 27. (T.M.C. Asser Press, The Hague, 2016), 7, <https://doi.org/10.1007/978-94-6265-132-6>.

²² Philippe Bourbeau, “Moving Forward Together: Logics of the Securitisation Process”, *Millennium*, vol. 43, no. 1 (2014): 187–206, <https://doi.org/10.1177/0305829814541504>.

understanding of drone deployment in crisis management. The theoretical framework serves as the foundation upon which the argument of this thesis is built.

This thesis will proceed as follows: chapter one explores Lampedusa's strategic role in the Mediterranean migration crisis, examining its historical and strategic significance and the operations implemented to manage the refugee crisis. Through a literature review, the chapter presents a comprehensive background to the study. Chapter two provides an overview of the evolution of drone technology, from military to dual-use, humanitarian, and surveillance applications, setting the stage for their role in the refugee crisis, while chapter three examines the theoretical frameworks of technological capability, humanitarianism, and securitisation, and their relevance to the deployment of drones. Chapter four will focus exclusively on the technological capability logic behind the deployment of drones in operations like Mare Nostrum, Triton, Sophia, and Themis. Chapter five will then focus on the humanitarian logic and Chapter six will address the securitisation logic, providing a comprehensive understanding of the multifaceted approaches to managing the refugee crisis. The concluding chapter seven is dedicated to the empirical analysis of the case study and synthesises the findings. It also suggests areas for further research.

This thesis falls within the field of conflict studies as it explores the intersection of military technologies, security policies, and humanitarian efforts. Wars are increasingly connected to the crisis of state sovereignty in postcolonial countries, characterized by weak institutions that favour the rise of authoritarian regimes. This often paves the way for armed conflicts and full-fledged civil wars, which in turn generate forced migrations. In this context, my thesis examines how the use of drones by Italian authorities to manage the refugee crisis in Lampedusa aligns with the broader dynamics of conflict studies, considering the implications of globalization, warfare, and migration.

Chapter 1:

Lampedusa: The Epicentre Of The European Migration.

In 2011, following the Arab uprisings and the overthrow of Muammar Gaddafi's regime in Libya, irregular crossings from Tunisia surged. These crossings declined in 2012 but then dramatically increased from mid-2013. The collapse of state institutions amid the civil war turned Libya into a prime transit country for irregular migration to Europe, with Lampedusa serving as the primary entry point.²³ This influx reached a tragic peak in the early morning of October 3, 2013, when a boat carrying approximately 500 migrants from Eritrea, Somalia, and Ghana sank just a few hundred meters off the coast of the small southern Italian island of Lampedusa, resulting in the deaths of 366 people.²⁴ The tragedy was the deadliest maritime disaster in the Mediterranean Sea since World War II.²⁵ The passengers had set a blanket on fire to attract attention, which had caused the boat to burn and rapidly sink.²⁶ Just a week later, another boat following the same route sank in Italian waters, resulting in the deaths of over 200 Syrian nationals.²⁷

This chapter situates Lampedusa within the broader context of Mediterranean migration, first examining its historical and strategic significance, followed by an analysis of the operations implemented to manage the refugee crisis. The sub-question guiding this chapter is: what is the historical and strategic significance of Lampedusa with respect to migration and how have operations on the island evolved in response to the Mediterranean refugee crisis? To answer this, the chapter reviews the literature on Lampedusa as a key site of migration and border management. This includes an examination of key operations aimed at managing migration, including the involvement of agencies such as Frontex, highlighting how the island has become a focal point for both humanitarian response and securitization efforts. By doing so, this chapter will contextualize the research and demonstrate its relevance within the broader field of migration management and technological governance.

²³ Eugenio Cusumano, Matteo Villa, "Over troubled waters: maritime rescue operations in the Central Mediterranean Route", *Migration in west and north Africa and across the Mediterranean : trends, risks, development and governance*, ed. Philippe Fargues and Marzia Rango, (Berlin, IOM GMDAC, 2020): 202-214.

²⁴ Zed Nelson, "Lampedusa boat tragedy: A survivor's story", *The Guardian*, March 22, 2014, <https://www.theguardian.com/world/2014/mar/22/lampedusa-boat-tragedy-migrants-africa>.

²⁵ Nick Dines, Nicola Montagna, and Vincenzo Ruggiero, "Thinking Lampedusa: border construction, the spectacle of bare life and the productivity of migrants", *Ethnic and Racial Studies*, 38(3), (2014): 430-445, <https://doi-org.proxy.library.uu.nl/10.1080/01419870.2014.936892>.

²⁶ Dines, "Thinking Lampedusa", 430-445.

²⁷ Dines, "Thinking Lampedusa", 430-445.

1.1 Lampedusa, A Strategic Mediterranean Border.

Historically, Lampedusa's strategic location has given it a unique role as an intercultural harbour.²⁸ For centuries, the island was home to Phoenicians, Greeks, and Romans, to later come under the rule of both Muslims and Christians.²⁹ During the Middle Ages and the Renaissance, Arab seafarers considered it a safe haven, even amid the Crusades.³⁰ However, the Mediterranean migration crisis, which began in the 1990s, transformed the island into a primary entry point due to its strategic location close to Africa.³¹ This strategic importance intensified with the implementation of the Schengen Agreement between October 1997 and March 1998, which removed controls at sea and land borders, allowing for free movement across member countries. Consequently, Lampedusa faced growing pressure to manage the influx of migrants and asylum seekers more effectively.³² Between October 2004 and March 2005, the Italian authorities carried out collective expulsions from Lampedusa to Libya, raising human rights concerns. The UNHCR criticized Italy for returning 180 people to Libya without checking if they were genuine refugees, noting that Libya lacked a proper asylum system and often detained and expelled people arbitrarily.³³ The situation collapsed in 2013 with the Lampedusa shipwreck.

Over the past decade, as Lampedusa has become synonymous with migrant fatalities and irregular landings, scholars have increasingly studied it within the framework of “borders”, exploring its pivotal role in European migration and border management. In this context, Dines, Montagna and Ruggiero delve into the construction of Lampedusa as a border zone, examining its implications and significance within the broader landscape of migration studies.³⁴ For the authors, the way Lampedusa has been perceived and managed as a border zone has influenced the fluctuating numbers of migrants arriving on the island over the past twenty years. This construction as a border zone involves policies, practices, and discourses that treat Lampedusa as a critical point of entry and control for migration, which in turn impacts the flow of migrants to the island.³⁵

²⁸ Nick Dines, Nicola Montagna, and Vincenzo Ruggiero, “Thinking Lampedusa: border construction, the spectacle of bare life and the productivity of migrants”, *Ethnic and Racial Studies*, 38(3), (2014): 430–445, <https://doi-org.proxy.library.uu.nl/10.1080/01419870.2014.936892>.

²⁹ Dines, “Thinking Lampedusa”, 430–445.

³⁰ Dines, “Thinking Lampedusa”, 430–445.

³¹ Dines, “Thinking Lampedusa”, 430–445.

³² Irene Ponzo, “Looking Into Policy Change: How the Italian Asylum Regime Came of Age”, in *Migration Control Logics and Strategies in Europe*, ed. Claudia Finotelli, Irene Ponzo, (IMISCOE Research Series. Springer, Cham, 2023): 287, https://doi.org/10.1007/978-3-031-26002-5_15

³³ *Lampedusa and Melilla, Southern Frontier of Fortress of Europe*, GUE/INGL, UNHCR The UN Refugee Agency (2005) <https://www.unhcr.org/sites/files/legacy-pd>.

³⁴ Dines, “Thinking Lampedusa”, 430–445.

³⁵ Dines, “Thinking Lampedusa”, 430–445.

Similarly, Cuttitta explores the concept of “borderness” on the island of Lampedusa, shedding light on the processes and narratives that have shaped its status as an EU border hotspot.³⁶ Cuttitta argues that the geopolitical context, particularly agreements between Italy and neighbouring countries such as Libya, Tunisia, and Egypt, has played a crucial role in shaping migration patterns and the flow of migrants to the island. Legislative measures, including the imposition of visa obligations on citizens of non-EU countries and sanctions on carriers transporting undocumented migrants, made it more difficult for them to enter Europe through legal means. As a result, many migrants were forced to seek alternative routes, often resorting to irregular migration methods, such as crossing the Mediterranean by boat to reach Lampedusa.³⁷

Cuttitta explains that in 2002, Lampedusa experienced a “great leap forward” in migrant arrivals, making it a key point for irregular landings.³⁸ He argues that the concept of “borderness” is embodied in Lampedusa's transformation into both a physical and symbolic border. This shift was driven by practices aimed at enforcing a “zero immigration” stance, such as pushbacks, delays in transfers, and heightened surveillance. These measures paradoxically led to a concentration of migrants on the island, as irregular crossings continued and those who succeeded were often stranded on Lampedusa.³⁹ The island's geographical location made it the first point of contact for many migrants attempting to enter Europe, effectively turning it into an external frontier of the EU. Moreover, the involvement of various actors, including the EU, Italian authorities, UN agencies, international organizations, and NGOs, in managing migration flows to Lampedusa has reinforced the island's status as a critical border zone. These collective efforts have created a complex network of control and assistance that underscores Lampedusa's role as both a gateway and a barrier, highlighting the multifaceted nature of borders in contemporary migration management.⁴⁰ As Cuttitta states it: “Indeed, borders have become ever more independent from their spatio-temporal coordinates of fixity in space and continuity in time, and they have also become much more immaterial, and much less visible.”⁴¹

Odasso and Proglgio propose a shift from the view of Lampedusa as “a mere and Italian-only border to the understanding that it is a sign of the European condition”.⁴² The significant

³⁶ Paolo Cuttitta, “ ‘Borderizing’ the Island Setting and Narratives of the Lampedusa ‘Border Play’ ”, *ACME: An International Journal for Critical Geographies*, 13(2) (2015): 196–219, <https://doi.org/10.14288/acme.v13i2.1004>.

³⁷ Cuttitta, “ ‘Borderizing’ ”, 196–219.

³⁸ Cuttitta, “ ‘Borderizing’ ”, 196–219.

³⁹ Cuttitta, “ ‘Borderizing’ ”, 196–219.

⁴⁰ Cuttitta, “ ‘Borderizing’ ”, 196–219.

⁴¹ Cuttitta, “ ‘Borderizing’ ”, 196–219.

⁴² Gabriele Proglgio, and Laura Odasso, “Introduction”, *Border Lampedusa: Subjectivity, Visibility and Memory in Stories of Sea and Land* (Palgrave Macmillan, 2018), 3, <https://doi.org/10.1007/978-3-319-59330-2>.

number of arrivals from diverse Mediterranean routes (167,091 from Algeria, Tunisia, and Libya, and 170,712 through Greece from Egypt, Turkey, or Syria) shows that migration is not limited to a single point of entry, such as Lampedusa, but is a widespread phenomenon affecting various parts of Europe.⁴³ The extensive use of different routes highlights that the migration issue is not confined to Italy alone but is a broader European challenge. This emphasizes the interconnectedness and shared responsibility among European countries in addressing migration. The data indicates that migration routes span multiple countries, reflecting the complex dynamics of European borders. It suggests that Lampedusa, while being a critical point of entry, is part of a larger system of European border management and migration patterns.⁴⁴

Other scholars have attempted to analyse how border controls, surveillance technologies, and rescue operations have altered the physical and operational dynamics of Lampedusa. Tazzioli discusses how different operations reflect a re-articulation of military and humanitarian technologies in the governance of migration at sea.⁴⁵ The author emphasizes that the Mare Nostrum operation, launched in 2013, was framed as both a military and humanitarian effort aimed at rescuing migrants in distress, while the subsequent Triton operation, coordinated by Frontex, launched in 2014, shifted the focus primarily towards border control rather than rescue. This shift had significant implications for the dynamics of migration governance, as it affected how migrant movements were monitored, selected, and managed, thereby altering the operational landscape in the Mediterranean region, particularly around Lampedusa and Sicily.⁴⁶

Lampedusa is not just a geographic location, nor a border, but a symbol of the broader conflict between humanitarianism, exemplified by Italy's launch of the humanitarian operation Mare Nostrum, and securitisation, with European requests for the securitisation of Italian borders. The island's history and evolving role in the migration crisis provide valuable context for exploring the dynamics of migration management. This section establishes a foundation for subsequent analysis of technological applications in Lampedusa, including the use of drones, in addressing migration challenges, setting the stage for the discussions in the following chapters.

⁴³ Gabriele Proglia, and Laura Odasso, "Introduction", *Border Lampedusa: Subjectivity, Visibility and Memory in Stories of Sea and Land* (Palgrave Macmillan, 2018), 3, <https://doi.org/10.1007/978-3-319-59330-2>.

⁴⁴ Proglia, *Border Lampedusa*, 3.

⁴⁵ Martina Tazzioli, "Border displacements. Challenging the politics of rescue between Mare Nostrum and Triton", *Migration Studies*, Volume 4, Issue 1 (March 2016): 1–19, <https://doi.org/10.1093/migration/mnv042>.

⁴⁶ Tazzioli, "Border displacements", 1–19.

1.2 Operations: Maritime Responses in Lampedusa.

The literature review has established Lampedusa as a pivotal site in the Mediterranean migration landscape, underscoring its strategic significance and the complex interplay of historical, geographical, and political factors that have shaped its role in migration and border management. Building on this foundation, this section explores how these dynamics have informed and evolved into specific operations aimed at managing the refugee crisis. Before the advent of advanced technologies like drones, search and rescue (SAR) operations relied heavily on established maritime practices. These operations were crucial for ensuring the safety of individuals at sea, particularly in regions with high maritime traffic and frequent migrant crossings, such as the Mediterranean. In Italy, SAR operations were primarily governed by Presidential Decree (DPR) 662/1994, which incorporated the principles of the 1979 Hamburg Convention.⁴⁷ The Convention was designed to create a global Search and Rescue (SAR) plan. The goal is to ensure that, regardless of where an accident happens at sea, there will be a coordinated effort by a SAR organization to rescue those in distress. If needed, this plan also involves collaboration between neighbouring SAR organizations to enhance the effectiveness of rescue operations.⁴⁸ The Ministry of Infrastructure and Transport (MIT) held primary responsibility for these operations, utilizing the Coast Guard/Harbor Master's Office, an entity that operates under the auspices of the Navy as stipulated in the Military Organization Code (COM).⁴⁹ The General Command of the Coast Guard was designated as the national coordinating body for maritime rescue, ensuring the orchestration of SAR services across the Italian SAR region and maintaining liaison with international rescue coordination centres.⁵⁰

In the framework of SAR activities governed by the Hamburg Convention, a new European reality came into existence: Frontex, the European Border and Coast Guard Agency. Frontex is “a centre of excellence for border control activities at the EU’s external borders, sharing intelligence and expertise with all Member States and with neighbouring non-EU countries affected by migratory trends and cross-border crime”.⁵¹ Based in Warsaw, Frontex was established on 26 October 2004.⁵² Within the maritime responses, the European institution performed a prominent role providing technical and operational assistance to people in life-

⁴⁷ Decreto Del Presidente Della Repubblica 28 Settembre 1994, n. 662, Gazzetta Ufficiale della Repubblica Italiana, accessed on June 10, 2024, <https://www.gazzettaufficiale.it/eli/id/1994/12/01/094G0688/sg>.

⁴⁸ Decreto Del Presidente Della Repubblica.

⁴⁹ Decreto Del Presidente Della Repubblica.

⁵⁰ Decreto Del Presidente Della Repubblica.

⁵¹ “Who We Are”, Frontex, accessed May 29, 2024, <https://www.frontex.europa.eu/about-frontex/who-we-are/tasks-mission/>.

⁵² Who We Are, Frontex.

threatening situations in the Mediterranean Sea.⁵³ This involved continuous support to the Italian national authorities involved in rescue missions.⁵⁴ Being a European agency, any EU member state or a country associated with the Schengen area can request Frontex to conduct so-called “Joint Operations” (JO).⁵⁵ ⁵⁶ These operations aim to address illegal immigration, current or future threats to external borders, and cross-border crime.⁵⁷ In other words, these operations involve Frontex working with national authorities by providing equipment, resources, personnel, and technical support to effectively carry out control, rescue, and support activities at external borders.

However, labelling Frontex as a SAR agency can be misleading, as it neither owns vessels nor planes. With the words of the first Frontex Executive Director, Ikka Laitinen, “Frontex has 21 airplanes, 27 helicopters and 116 boats, however Frontex doesn’t own any vessels itself and cannot afford deployment of a big number of units to a chosen region. These assets belong to the Member States, and they are subject to their will to deploy them. Frontex activities are supplementary to those undertaken by the Member States. Frontex doesn’t have any monopoly on border protection and is not omnipotent. It is a coordinator of the operational cooperation in which the Member States show their volition”.⁵⁸

In Italy, until October 2013, patrolling on the high seas took place with two large ships, with a crew of around 80 men.⁵⁹ These were part of the Constant Vigilance mission carried out by the Italian Navy since 2004, consisting of permanent patrolling of the Strait of Sicily with a ship and maritime patrol aircraft.⁶⁰ On top of this, two more permanent missions were coordinated and financed by Frontex with the participation of Italy: *Hermes* (for the control of the southern Italian coasts, carried out by the Coast Guard and Financial Police) and *Aeneas*

⁵³ Who We Are, Frontex.

⁵⁴ Who We Are, Frontex.

⁵⁵ Regolamento (UE) 2019/1896 del Parlamento europeo e del Consiglio, del 13 novembre 2019, relativo alla guardia di frontiera e costiera europea e che abroga i regolamenti (UE) n. 1052/2013 e (UE) 2016/1624, Eur-Lex, Access to European Union Law, <https://eur-lex.europa.eu/legal-content/it/ALL/?uri=CELEX%3A32019R1896>.

⁵⁶ In the 1980s, Belgium, France, Germany, Luxembourg, and the Netherlands created the Schengen area for free movement without internal borders, formalized in 1985 and implemented in 1990. The Schengen area abolished internal border checks in 1995 and standardized border control, visas, and asylum rules, see Andrew Geddes, et al, *Migration and Mobility in the European Union* Second edition (Bloomsbury Academic, 2020), <https://public.ebookcentral.proquest.com/choice/PublicFullRecord.aspx?p=30716565>.

⁵⁷ Regolamento (UE) 2019/1896.

⁵⁸ Frontex Facts and Myths, Ikka Laitinen, *Frontex*, Accessed June 10, 2024,

<https://www.frontex.europa.eu/media-centre/news/news-release/frontex-facts-and-myths-BYxkX5>.

⁵⁹ “Immigrazione, al via l'operazione Mare Nostrum Elicotteri, droni, radar e 5 navi, anche una anfibia”, *Quotidiano Nazionale*, accessed on June 17, 2024, <https://www.quotidiano.net/cronaca/2013/10/14/965390-migranti-barcone-lampedusa.shtml>.

⁶⁰ “Da Mare Nostrum a Triton”, Legislatura 17^a - Dossier n. 210, Senato della Repubblica, https://www.senato.it/japp/bgt/showdoc/17/DOSSIER/0/912705/index.html?part=dossier_dossier1-sezione_sezione11-table_table7.

(for the control of the flows migrants from Turkey and Egypt transiting through Greece), with an annual budget of around 5 million euros.⁶¹

1.3 Operations: Drones Responses in Lampedusa.

Frontex and the Member States in the Mediterranean faced several challenges at the southern sea border. These challenges included detecting and tracking small boats, high personnel costs, and the efficiency and surveillance capability of border patrols.⁶² Yet, the most arduous challenge lied in monitoring the broad Mediterranean area (approx. 2.5 million square kilometres), as well as gathering information from remote locations.⁶³ Frontex has acknowledged that its existing technology had several limitations, among which the weather conditions impacting the quality of satellite images.⁶⁴

A widely recognized solution to these challenges is the acquisition and deployment of drones. A Special Report for NATO (The North Atlantic Treaty Organization) on UAVs (Unmanned Aerial Vehicles) and their technological potential, frames drones as tools that offer operational advantages by being cheaper in the long term compared to manned solutions, being more expendable, and having the ability to stay airborne much longer than a human crew.⁶⁵ In contrast with ships, thanks to the surveillance technologies they carry, drones can support border control objectives by reducing the number of migrants illegally entering the EU, preventing undocumented migration, and combating cross-border crime.

Drones provide valuable information to border guards on the ground or at sea, enabling border surveillance to become a proactive policy rather than a reactive one. With the data gathered by drones, ground and sea patrols can better manage migrant control and, in the case of sea migration, assist migrants in distress. Additionally, they can redirect migrants to international waters or hand them over to authorities in cooperating third countries, if bilateral agreements allow.⁶⁶ Being one of the primary entry points to Europe for migrants traveling via

⁶¹ “Da Mare Nostrum a Triton”.

⁶² Frontex, General Report 2014, Accessed on June 17, 2024, https://www.frontex.europa.eu/assets/Key_Documents/Annual_report/2014/General_Report_2014.pdf.

⁶³ Frontex, General Report 2014.

⁶⁴ Frontex, General Report 2014.

⁶⁵ Pierre Claude Nolin, “Unmanned Aerial Vehicles: Opportunities and Challenges for the Alliance”, *Special Report Canada: NATO Parliamentary Assembly* (2012) <https://www.nato-pa.int/document/2012-157-stc-12-e-rev-1-uavs-special-report-nolin>.

⁶⁶ Aleš Završnik, “Introduction: Situating Drones in Surveillance Societies”, in *Drones and Unmanned Aerial Systems: Legal and Social Implications for Security and Surveillance* (Springer, 2016): 10, <https://doi.org/10.1007/978-3-319-23760-2>.

Mediterranean routes, since 2013 Italy has used drones for both humanitarian and border surveillance purposes.⁶⁷

1.3.1 *Mare Nostrum (2013-2014)*

Following the shipwreck occurred on October 3, 2013, on October 18 of the same year Italy launched Mare Nostrum, a “military-humanitarian operation” aimed at rescuing migrants in distress at sea.⁶⁸ Mare Nostrum was the first governmental operation in Italy to utilize drones for managing the refugee crisis. Therefore, UAVs have been named accordingly: humanitarian drones. A “humanitarian drone” is defined as a drone that is used for search and rescue (SAR) operations with the specific purpose of saving people in distress and preventing loss of life at sea. It emphasizes that the primary objective of such drones is to perform humanitarian tasks rather than surveillance or security functions.⁶⁹ The humanitarian characteristic of Mare Nostrum is defined in several government documents. A document approved by the parliamentary committee for the control of migratory flows in Europe quotes: “To deal with this massive exodus of populations coming from the African continent, to address the ever-increasing migratory flows, intervene to help migrants and prevent human trafficking through the Mediterranean Sea, the Italian Government launched Operation Mare Nostrum on 18 October 2013.”⁷⁰ The Italian Navy describes Mare nostrum as “a military and humanitarian operation in the southern Mediterranean Sea” and with a dual mission, “to guarantee the protection of life at sea and to bring to justice all those who profit from the illegal trafficking of migrants”.⁷¹

Drones have been part of the technical equipment of this rescue operation⁷² and have been deployed mainly around Lampedusa. Six MQ-1 Predators and six MQ-9 Reapers or Predator Bs, launched from the Sigonella Italian and NATO Air Base in Sicily, patrolled the Lampedusa area as well as Libya’s southern border, likely to gather information and ensure

⁶⁷ Stefania Panebianco, “The Mare Nostrum Operation and the SAR approach: the Italian response to address the Mediterranean migration crisis”, *EUMed EA Online Working Paper Series*, 3 (2016), 1-27.

⁶⁸ Martina Tazzioli, “Border displacements. Challenging the politics of rescue between Mare Nostrum and Triton”, *Migration Studies*, Volume 4, Issue 1 (March 2016): 1–19, <https://doi.org/10.1093/migration/mnv042>.

⁶⁹ Luisa Marin, “The Humanitarian Drone and the Borders: Unveiling the Rationales Underlying the Deployment of Drones in Border Surveillance”, *Drones Here There and Everywhere*, Bart Custers Editor, (Springer, 2016), 127.

⁷⁰ “Sui Flussi Migratori in Europa attraverso l’Italia”, *Camera dei Deputati*, Accessed on June 18, 2024, https://documenti.camera.it/_dati/leg17/lavori/documentiparlamentari/indiceetesti/017bis/004/intero.htm.

⁷¹ “Mare Nostrum”, *Marina Militare*, Accessed on June 18, 2024, <https://www.marina.difesa.it/cosa-facciamo/per-la-difesa-sicurezza/operazioni-concluse/Pagine/mare-nostrum.aspx>.

⁷² Luisa Marin, “The deployment of drone technology in border surveillance”, in *The Future of Drone Use : Opportunities and Threats from Ethical and Legal Perspectives* (The Hague, Berlin: Asser Press ; Springer, 2016), 107-122.

early detection of migrants.⁷³ Patrolling the southern Libyan border was enabled by a bilateral Technical Agreement (TA) between Italy and Libya in November 2013, which authorized border surveillance activities with drones.⁷⁴

In terms of technology, the drones used electro-optical, infra-red and radar sensors.⁷⁵ Electro-optical sensors provide high-resolution visual imagery, which is crucial for identifying and tracking individuals or vessels. Infra-red sensors allow for thermal imaging, making it possible to detect people or objects based on heat signatures, even in low visibility conditions or at night. Radar sensors offer the capability to detect and track objects over a wide area, regardless of weather conditions, thus providing all-weather, day-and-night surveillance capabilities. The integration of these advanced sensors into drones significantly boosts the operational efficiency and effectiveness of border management efforts, enabling timely and accurate responses to potential threats or emergencies.⁷⁶ Images and videos taken by the aircraft's on-board sensors were shared in real time with the assigned Air Operation Centre (AOC).⁷⁷ In close collaboration with the Navy General Staff and the respective Operational Commands, the AOC acted as a link between the air and naval components for the closest frigate to be directed to the point detected.⁷⁸

To understand the impact of Operation Mare Nostrum, it is important to look at its numbers. Chief of Staff De Giorgi stated that "after 341 days of operation, 141,891 shipwreck survivors were assisted, 298 smugglers were arrested, and 4 motherships were seized. To carry out Mare Nostrum, 31 naval units and 2 submarines were deployed, with ten thousand military personnel involved and 384 rescue operations conducted. Seventy percent of the refugees came from Eritrea, followed by Syrians, and migrants from Mali, Nigeria, Gambia, Pakistan, and Egypt".⁷⁹

⁷³ Luisa Marin, "The deployment of drone technology in border surveillance", in *The Future of Drone Use : Opportunities and Threats from Ethical and Legal Perspectives* (The Hague, Berlin: Asser Press ; Springer, 2016), 107-122.

⁷⁴ Marin, "The deployment of drone technology in border surveillance", 107-122.

⁷⁵ Mare Nostrum: 1[^] Missione Del Predator, Aeronautica Militare, Ministero della Difesa, accessed on May 29, 2024, <https://www.aeronautica.difesa.it/2013/10/29/mare-nostrum-1-missione-del-predator/>.

⁷⁶ Mareile Kaufmann, "The drone's power to sense and construct emergencies" , in *The Good Drone*, ed. Kristin Bergtora Sandvik, and Maria Gabrielsen Jumbert (New York, NY: Routledge, 2016), 168-194.

⁷⁷ Mare Nostrum: 1[^] Missione Del Predator.

⁷⁸ Mare Nostrum: 1[^] Missione Del Predator.

⁷⁹ "Marina militare: non è Mare nostrum a far crescere i flussi verso l'Italia", *Immigrazione, Redattore Sociale*, Accessed on June 10, 2024, https://www.redattoresociale.it/article/notiziario/marina_militare_non_e_mare_nostrum_a_far_crescere_i_flussi_verso_l_italia.

Mare Nostrum had a significant budget and conducted numerous rescue operations, but it faced criticism and was eventually replaced by a different operation due to concerns about its cost and perceived attractiveness to migrants.⁸⁰

1.3.2 Frontex Triton (2014-2018)

The operation continued until October 2014, when the Italian government transitioned the humanitarian mission Mare Nostrum to a securitisation-driven Frontex-coordinated joint operation (JO) named Triton, involving the EU and other Member States.⁸¹ Despite Triton not employing drones, it is crucial to consider this operation as it marks the shift from a humanitarian focus to a logic of border protection, which will be the predominant focus of subsequent operations. In a document approved by the Parliamentary Committee on Migration Flows in Europe through Italy (approved by the Committee in the session of December 16, 2015) it reads: “Operation Triton was decided upon, carried out, and funded by the European Union, with overall governance provided by Frontex, an EU agency, whereas Mare Nostrum originated from an Italian decision, with Italian funding, to provide an emergency response to the severe humanitarian crisis tragically highlighted by the Lampedusa disaster. The new operation, therefore, was intended to have a completely different task compared to Mare Nostrum, due to the different objectives. In the central Mediterranean, Frontex aims to combat illegal immigration, human trafficking, and smuggling, following the limits and procedures imposed by Regulation No. 656/2014, which lays down the rules Frontex must adhere to for the surveillance of the EU's external maritime borders”.⁸²

This document reveals three main differences between Mare Nostrum and Triton: the first one is that Mare Nostrum was an Italian initiative, entirely funded and managed by Italy, reflecting its national approach to the migration crisis. On the other hand, Triton was a European operation, initiated at the request of Italian authorities but coordinated and funded by the EU under Frontex’s governance.⁸³ This shift from a national to a European operation signified a broader, more collective approach to border management in the Mediterranean. The second one is that Mare Nostrum was fundamentally a humanitarian mission aimed at saving

⁸⁰ Barbara Pinelli, “Control and Abandonment: The Power of Surveillance on Refugees in Italy, During and After the Mare Nostrum Operation”, *Antipode* Vol. 50 No. 3 (2017): 725-747, <https://onlinelibrary.wiley.com/doi/abs/10.1111/anti.12374>.

⁸¹ Luisa Marin, “The Humanitarian Drone and the Borders: Unveiling the Rationales Underlying the Deployment of Drones in Border Surveillance”, in *The Future of Drone Use : Opportunities and Threats from Ethical and Legal Perspectives* ed. Bart Custers, (Asser Press, Springer, 2016), 116-130, <https://doi.org/10.1007/978-94-6265-132-6>.

⁸² Camera dei Deputati, Senato della Repubblica, XVII Legislatura, Documento conclusivo dell’indagine conoscitiva Relatore, on. Laura Ravetto (Approvato dal Comitato nella seduta del 16 dicembre 2015).

⁸³ Pinelli, “Control and Abandonment”, 725-747.

lives at sea, reflecting Italy's commitment to humanitarian aid in response to the Lampedusa disaster. In contrast, Triton's primary focus was on border control rather than rescue operations, aligning with Frontex's institutional mission to combat illegal immigration, human trafficking, and smuggling.⁸⁴ The third notable difference between Operation Mare Nostrum and Operation Triton is the absence of drone deployment. Unlike Mare Nostrum, which incorporated the use of drones for surveillance and rescue operations, Triton relied solely on traditional maritime and (manned) aerial assets.⁸⁵

1.3.3 Eunavfor Med Sophia (2015-2019)

In 2015, the Union established Eunavfor Med Sophia, (European Union Naval Force in the South-Central Mediterranean), the first maritime security military operation launched by the European Union led by Italy, with the main mandate of combating the network of traffickers.⁸⁶ Unlike Triton and Themis, Sophia was a unitary EU operation with a distinct military character.⁸⁷ Similarly to Triton, conducting SAR operations was not part of its mandate.⁸⁸ The operational command was based in Rome.⁸⁹ Rescue activities conducted by Sophia were coordinated by the Italian Coast Guard.⁹⁰ In March 2019, the operation's naval assets were temporarily suspended due to a lack of agreement among member states. Sophia, which initially involved ships patrolling the Mediterranean, shifted to using drones for surveillance.⁹¹ Starting in 2018, Italian Air Force Predator drones have been utilized for this purpose.⁹² The technical sheet of the operation's asset, reads: "The Predator aircraft, with its most advanced and updated version which is the MQ-9A Predator B, is a remote-controlled, long-life, mid-height system for surveillance and reconnaissance missions".⁹³ The critical point of using

⁸⁴ "Who We Are", Tasks & Missions, *Frontex*, <https://www.frontex.europa.eu/about-frontex/who-we-are/tasks-mission/>.

⁸⁵ Frontex Joint Operation 'Triton' – Concerted Efforts for managing migrator flows in the Central Mediterranean, *European Commission*, Scheda Informativa, accessed on July 10, 2024, https://ec.europa.eu/commission/presscorner/detail/it/MEMO_14_609.

⁸⁶ "Da Mare nostrum a Sophia a Mediterraneo sicuro: dieci anni di operazioni navali nel Mediterraneo Centrale", *Servizi Studi del Senato*, Aprile 2023, <https://www.senato.it/service/PDF/PDFServer/BGT/01373655.pdf>.

⁸⁷ Ruxandra-Laura Boşilcă, Matthew Stenberg & Marianne Riddervold, "Copying in EU security and defence policies: the case of EUNAVFOR MED Operation Sophia," *European Security*, 30:2 (2021): 218-236.

⁸⁸ Boşilcă et al, "Copying in EU security and defence policies", 218-236.

⁸⁹ Boşilcă et al, "Copying in EU security and defence policies", 218-236.

⁹⁰ "Da Mare nostrum a Sophia a Mediterraneo sicuro: dieci anni di operazioni navali nel Mediterraneo Centrale", *Servizi Studi del Senato*, Aprile 2023, <https://www.senato.it/service/PDF/PDFServer/BGT/01373655.pdf>.

⁹¹ Iris Blay Puntas, "The use of drones for maritime surveillance and border control", *Working Papers Centre Delàs d'Estudis per la Pau* (2022): 1-23, https://centredelas.org/wp-content/uploads/2022/06/WP_DronesFrontex_ENG.pdf.

⁹² Puntas, "The use of drones for maritime surveillance and border control", 1-23.

⁹³ "Air Asset Predator", *Operation Sophia*, <https://www.operationsophia.eu/wpcontent/uploads/2019/04/PREDATOR.pdf>

drones instead of manned patrols, is that it allowed Italian authorities to monitor the sea without having to comply with international laws that require ships to assist vessels in distress. International Maritime Law, such as the United Nations Convention on the Law of the Sea (UNCLOS), obliges ships to help any vessels in trouble they encounter.⁹⁴ Since drones do not have crews and cannot physically rescue people, they are not bound by this legal requirement. Thus, without naval assets, Sophia could no longer directly intervene in search and rescue operations.

1.3.4 Frontex Themis (2018-2020)

While Operation Sophia was still active, Operation Triton concluded in 2018, giving way to Frontex's new Operation Themis, which once again addressed the increasing arrivals of irregular migrants on the island of Lampedusa.⁹⁵ Executive Director Hans Leijtens emphasized the collaborative effort, stating, "This is not just an Italian challenge but a collective one for Europe. Together, we embrace the shared responsibility of safeguarding the EU's external borders."⁹⁶ Similarly to Triton, Themis was a joint operation between Europe and Italy, yet with the dual purpose of SAR and border surveillance with "a strengthened focus" on law enforcement.⁹⁷ Among the objectives were the fight against drug trafficking across the Adriatic, the flow of foreign fighters and "other terrorist threats at the external borders".⁹⁸

Here, technology was deployed again.⁹⁹ Italian Falco EVO drones, produced by Leonardo-Finmeccanica, began border surveillance operations on December 6, 2018, from the airport on the Sicilian island. Intelligence, Surveillance, and Reconnaissance (ISR) missions were planned by the *Guardia di Finanza* with coordination from the Interior Ministry.¹⁰⁰ The Falco EVO, equipped with an infrared high-definition optical system, a satellite data connection Beyond the Line of Sight, and an advanced suite of onboard sensors including the Gabbiano TS Ultra-Light radar, operated with Leonardo's flight personnel and maintenance teams.¹⁰¹ The drone, authorized to fly over Italian and Maltese civilian airspace, has been

⁹⁴ Art. 18, Meaning of Passage, United Nations Convention on the Law of the Sea, *United Nations*, https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf.

⁹⁵ "Frontex boosts support to Italy", News, *Frontex*, accessed on July 14, 2024, <https://www.frontex.europa.eu/media-centre/news/news-release/frontex-boosts-support-to-italy-IHEK3y>.

⁹⁶ "Frontex boosts support to Italy", *Frontex*.

⁹⁷ "Frontex launching new operation in Central Med", News, *Frontex*, February 1, 2018, <https://www.frontex.europa.eu/media-centre/news/news-release/frontex-launching-new-operation-in-central-med-yKqSc7>.

⁹⁸ "Frontex launching new operation in Central Med", *Frontex*.

⁹⁹ "Il drone Falco Evo di Frontex in missione sul Mediterraneo contro i trafficanti", *Analisi Difesa*, accessed on May 31, 2024, <https://www.analisdifesa.it/2019/07/1-drone-falco-evo-di-frontex-in-missione-sul-mediterraneo-contro-i-trafficanti/>.

¹⁰⁰ "Il drone Falco Evo di Frontex", *Analisi Difesa*.

¹⁰¹ "Il drone Falco Evo di Frontex", *Analisi Difesa*.

deployed in two military operations in the Sicilian Channel to intercept vessels carrying migrants.¹⁰² The first mission, on June 20, 2019, intercepted a fishing boat from which 75 migrants, including three women and three minors, were transferred onto smaller vessels that then disembarked in Lampedusa.¹⁰³ The second mission, on June 26, 2019, saw the Falco EVO operate for 17 hours and 21 minutes consecutively, supporting an intervention by the Italian armed forces against two vessels navigating near the Pelagic Islands.¹⁰⁴ Overall, Operation Themis involved 283 officers and staff, five vessels, seven aircraft, 18 mobile offices, and four vehicles for migration management, underscoring Frontex's comprehensive approach to managing the refugee crisis in the Mediterranean.¹⁰⁵

The tragic events of October 3, 2013, underscored the urgent need for effective migration management, leading to operations like Mare Nostrum, Triton, and Themis. Lampedusa's strategic role in the Mediterranean migration crisis made it a focal point for both humanitarian and border management efforts. Mare Nostrum, with its humanitarian focus, contrasted with Triton's emphasis on border control and security. Operation Themis, initiated in 2018, occupied a middle ground between these approaches, using drones for enhanced SAR operations while also incorporating intelligence activities to address terrorist threats. This dual focus illustrates the evolving complexity of migration management in the Mediterranean. Operation Sophia, like Triton, did not prioritize SAR and was a unitary EU operation with a distinct military character. This analysis answered the sub-question: "What is the historical and strategic significance of Lampedusa with respect to migration and how have operations on the island evolved in response to the Mediterranean refugee crisis?"

The next chapter will explore the history and evolution of drone technology, providing a foundation for understanding its integration into migration management.

¹⁰² "Il drone Falco Evo di Frontex in missione sul Mediterraneo contro i trafficanti", *Analisi Difesa*, accessed on May 31, 2024, <https://www.analisdifesa.it/2019/07/1-drone-falco-evo-di-frontex-in-missione-sul-mediterraneo-contro-i-trafficanti/>.

¹⁰³ "Border surveillance, drones and militarisation of the Mediterranean", *Statewatch*, <https://www.statewatch.org/analyses/2021/border-surveillance-drones-and-militarisation-of-the-mediterranean/>.

¹⁰⁴ "Border surveillance", *Statewatch*.

¹⁰⁵ "Frontex boosts support to Italy", News, *Frontex*, accessed on July 14, 2024, <https://www.frontex.europa.eu/media-centre/news/news-release/frontex-boosts-support-to-italy-IHEK3y>.

Chapter 2: A Short History Of Drones.

While Chapter Two explored Lampedusa's strategic role in the Mediterranean refugee crisis and the evolution of migration management strategies, including drone deployment, this chapter examines the literature on drones, particularly their dual-use nature for both humanitarian assistance and border surveillance. The section begins with a definition of drones, to then examine how they are used in refugee crises, with a focus on search and rescue operations and data collection. A key focus of this chapter is to answer the sub-question: "How has drone technology evolved from military to dual-use, humanitarian, and surveillance applications?" By addressing this question, the chapter aims to contextualize the research and demonstrate its relevance within the broader field of migration management and technological governance. This approach will provide a comprehensive foundation for analysing the intersection between technology and government action in managing the refugee crisis in Lampedusa, Italy.

2.1 Military Drones

According to military historian Steven Zaloga, the term "drone" was inspired by the British Royal Navy's DH 82B Queen Bee, a remote-controlled aircraft used for target practice in 1935. After witnessing a demonstration, U.S. Admiral William H. Standley tasked Commander Delmer Fahrney with developing a similar system for the U.S. Navy, naming these aircraft "drones" in homage to the Queen Bee. Like male honeybee drones serving the queen, these aircraft operated under external control.¹⁰⁶ During World War II, drones, referred to as "pilotless aircraft," were further developed for target practice and combat. The term "drone" evolved to mean "to convert a piloted aircraft into a pilotless drone." In the 1960s, the term "Remotely Piloted Vehicle" (RPV) was introduced, later replaced by "Unmanned Aerial Vehicles" (UAV) in the 1980s.¹⁰⁷ Since 1995, the US Air Force and CIA have used the MQ-1 Predator drone for military reconnaissance and combat in various countries, including Afghanistan, Pakistan, and Iraq.¹⁰⁸ During the Balkan War, specifically the Kosovo conflict in

¹⁰⁶ Benjamin Zimmer; Charles E. Carson, Jane Solomon, "Seventy-Five Years among the New Words", *American Speech* (2016) 91 (4): 472–512.

¹⁰⁷ David Hodgkinson, and Rebecca Johnston, "Drones, Innovation and the Challenge for Lawmakers", in *Aviation Law and Drones : Unmanned Aircraft and the Future of Aviation*, (New York, Routledge, Taylor & Francis Group, 2018), 54.

¹⁰⁸ Richard Whittle, *Predator : The Secret Origins of the Drone Revolution* (Henry Holt and Company, 2014), 245, <https://www.yourcloudlibrary.com>.

1999, the Allied Forces deployed the highest number of UAVs up to that time.¹⁰⁹ The United States contributed significantly to this effort by deploying five Predator drones from the Air Force's 11th Reconnaissance Squadron, stationed in Indian Springs, Nevada, and 8 Hunter drones from the Army's 15th Military Intelligence Battalion at Fort Hood, Texas.¹¹⁰ Additionally, England, Germany, and France also provided UAVs to support the operations.¹¹¹ In 2003, Predator drones were used during the Iraq military campaign, and they played a role in surveillance and reconnaissance operations.¹¹² However, US drone deployment significantly expanded during the Obama Administration, from 2009 until 2017 expanding operations across the African continent.¹¹³ It is important to first provide a brief overview of American drones for two reasons: firstly, because they were the first to lead the way in the use of drones, and secondly, because it was the USA that armed the first Italian drones.

In 2015 the United States agreed to sell Hellfire missiles, laser-guided bombs, and other munitions to arm the Italian Air Force's Reaper and Predator drones. The purchase request was made by Rome in 2012. Italy became the second country to which such weapons were sold, with these types of drones being used in Afghanistan, Iraq, and Yemen.¹¹⁴

Today, some of the top producers of military drones include the United States, Israel, and China.¹¹⁵ The US continues to be a leading developer of advanced UAV technology with platforms like the MQ-9 Reaper. Israel is known for its innovative UAVs like the Heron and Hermes series, which are widely exported and used globally. China has also emerged as a significant player with drones like the Wing Loong and CH series, which are increasingly being adopted by various countries.¹¹⁶

As the technology evolved, so did its applications. Today Predators, equipped with cameras, sensors, and missiles, are also used for border enforcement, scientific studies, search and rescue operations among others.¹¹⁷ This broadening scope of drone use highlights their dual-use nature, bridging military and civilian applications.

¹⁰⁹ Gianmarco Veruggio, Fiorella Operto, "Roboetica: focus sulle problematiche civili e militari dei droni", *Mondo Digitale*, Settembre 2015, https://mondodigitale.aicanet.net/2015-4/relazioni/03_roboetica.pdf.

¹¹⁰ Veruggio, Fiorella Operto, "Roboetica", *Mondo Digitale*.

¹¹¹ Veruggio, Fiorella Operto, "Roboetica", *Mondo Digitale*.

¹¹² Timothy Garden, "Iraq: The Military Campaign", *International Affairs* (Royal Institute of International Affairs 1944-) 79, no. 4 (2003): 701–18. <http://www.jstor.org/stable/3569569>.

¹¹³ Richtsje Kurpershoek, Alejandra Muñoz Valdez and Wim Zwijnenburg, "Remtote Horizons: Expanding use and proliferation of military drones in Africa", *Pax* (Open Society Foundation, 2021): 14.

¹¹⁴ "Gli Stati Uniti vendono all'Italia munizioni per i droni", *Internazionale*, November 5, 2015, <https://www.internazionale.it/notizie/2015/11/05/droni-armi-italia-stati-uniti>.

¹¹⁵ Michael J. Boyle, "The Race for Drones", *Orbis* 59 (1): 76–94, <https://doi.org/10.1016/j.orbis.2014.11.007>.

¹¹⁶ Boyle, "The Race for Drones", 76–94.

¹¹⁷ Davide Bartoccini, "Difesa Online, Scheda Tecnica: I Droni Predator E Reaper", *Difesa Online*, accessed on May 29, 2024, <https://www.difesaonline.it/mondo-militare/difesa-online-scheda-tecnica-i-droni-predator-e-reaper>.

2.2 Dual Use Drones

The development and use of drones in non-military contexts present a contradictory situation. On one hand, drones have "life-giving" functions, such as search and rescue operations, humanitarian assistance, and environmental monitoring, where they help save lives and provide critical assistance. On the other hand, drones also have "life-taking" functions, such as their use in military operations for targeted killings and surveillance that can lead to loss of life. This dual capability of drones to both save and take lives at the same time is what constitutes the technological paradox. This paradox becomes even more pronounced as drones, once predominantly linked to military operations, are increasingly being adapted for civilian and humanitarian purposes.¹¹⁸ This shift in drone application is further highlighted by the Office for the Coordination of Humanitarian Affairs' 2014 observation that drones were primarily associated with military applications, especially armed attacks.¹¹⁹ However, the report stated, a growing civilian use by hobbyists, researchers, and others, as well as emerging regulations and technology becoming more affordable, has ignited an interest in using drones for humanitarian purposes.¹²⁰ Portable micro-UAVs have already been deployed in disaster response situations in Haiti and the Philippines. Moreover, peacekeeping and military actors are utilizing UAVs for reconnaissance and data-gathering tasks, making these capabilities available to humanitarian agencies.¹²¹

2.2.1 Humanitarian Drones

In recent years, drones have been addressing various emerging needs, including humanitarian objectives, hence the term "humanitarian drone".¹²² The concept of the "humanitarian drone" is not fixed or monolithic but is shaped by the diverse ways in which different entities perceive and implement drone technology to provide assistance in various contexts. As a starting point

¹¹⁸ Luisa Marin, "The Humanitarian Drone and the Borders: Unveiling the Rationales Underlying the Deployment of Drones in Border Surveillance", *The Future of Drone Use : Opportunities and Threats from Ethical and Legal Perspectives* Bart Custers ed. (Asser Press, Springer, 2016): 116-130, <https://doi.org/10.1007/978-94-6265-132-6>.

¹¹⁹ Daniel Gilman, *Unmanned Aerial Vehicles in Humanitarian Response*, (OCHA, Policy And Studies Series, June 2014 | 010): 1-20, <https://www.unocha.org/publications/report/world/unmanned-aerial-vehicles-humanitarian-response>.

¹²⁰ Gilman, *Unmanned Aerial Vehicles in Humanitarian Response*, 1-20.

¹²¹ Gilman, *Unmanned Aerial Vehicles in Humanitarian Response*, 1-20.

¹²² Tommaso Martini, M. Lynch, A. Weavervan, T. Vuuren, "The Humanitarian Use of Drones as an Emerging Technology for Emerging Needs", Custers, B. (eds) *The Future of Drone Use. Information Technology and Law Series*, vol 27. (T.M.C. Asser Press, The Hague, 2016): https://doi.org/10.1007/978-94-6265-132-6_7.

for this analysis, the concept of the “humanitarian drone” can be seen as a collection of differing views on the technology and its intended functions to address various assistance needs.¹²³

Abderahman highlights the humanitarian and life-saving benefits of drones noting that this technology accelerates the speed of relief missions, enhances disaster risk mitigation planning, coordinates humanitarian efforts, and assists field teams in search and rescue operations.¹²⁴ Sandvik and Lohne emphasize the use of UAV in humanitarian contexts¹²⁵, where Wynsberghe and Comes agree that drones used in humanitarian action have gained prominence due to their pervasive presence.¹²⁶ Alberstadt explains that it is the lower production costs, the resource efficiency, and the versatile capabilities of drones that drive many states and non-state actors to expand their drone arsenals.¹²⁷ In this context, Wang, Christen, Hunt, and Biller-Andorno note that aid agencies such as the UN are increasingly utilizing emerging technologies in humanitarian and development settings worldwide.¹²⁸

As for the first humanitarian use of drones, scholars show differing positions. Sandvik and Jumbert agree that the earliest instance of using drones for military surveillance and reconnaissance with a humanitarian aspect was the US deployment of the Gnat 750, a precursor to the Predator, over Bosnia in 1994.¹²⁹ Karlsrud and Rosén instead consider that the first humanitarian drone deployment in a refugee crisis was the 2008 UN mission (MINURCAT) in Chad and the Central African Republic.¹³⁰ In 2009, UN troops with drone capabilities replaced EUFOR troops, using drones to monitor movements and protect refugees, IDPs, and aid workers during an invasion from Darfur.¹³¹ Drones were deployed to survey damage and reconstruction following the 2010 Haiti earthquake. However, 2013 Philippines Typhoon Haiyan is widely regarded as the "breakthrough" event for the use of small, handheld drones in

¹²³ Kristin B. Sandvik, Kjersti Lohne, “The rise of the humanitarian drone: giving content to an emerging concept,” *Millennium: Journal of International Studies* (Sage Publications Ltd, Millennium, 2014): 145-164, <https://doi.org/10.1177/0305829814529470>.

¹²⁴ Rejeb Abderahman, et al, “Humanitarian Drones: A Review and Research Agenda”, *Internet of Things*, vol. 16, 2021, <https://doi.org/10.1016/j.iot.2021.100434>.

¹²⁵ Sandvik, Lohne, “The rise of the humanitarian drone”, 145-164.

¹²⁶ Aimy van Wynsberghe, and Tina Comes, “Drones in humanitarian contexts, robot ethics, and the human-robot interaction.”, *Ethics Inf Technol* 22, (2020): 43–53, <https://doi.org/10.1007/s10676-019-09514-1>.

¹²⁷ Rachel Alberstadt, “Drones under International Law”, *Open Journal of Political Science*, vol. 04, no. 04, (2014): 221–32, <https://doi.org/10.4236/ojps.2014.44023>.

¹²⁸ Ning Wang, Markus Christen, Matthew Hunt, and Nikola Biller-Andorno, “Supporting Value Sensitivity in the Humanitarian Use of Drones through an Ethics Assessment Framework”, *International Review of the Red Cross* 104, no. 919 (2022): 1397–1428. <https://doi.org/10.1017/S1816383121000989>.

¹²⁹ Kristin Bergtora Sandvik, et Maria Gabrielsen Jumbert, “Les drones humanitaires”, *Revue internationale et stratégique*, vol. 98, no. 2, (2015): 139-146.

¹³⁰ John Karlsrud, and Frederik Rosén, “In the Eye of the Beholder? The UN and the Use of Drones to Protect Civilians”, *Stability: International Journal of Security & Development*, 2(2): 1-10.

¹³¹ Karlsrud, and Rosén, “In the Eye of the Beholder?”, 27.

humanitarian operations.¹³² Meier reports that humanitarian drones have also been deployed after the Hurricane Sandy in New York (2012), the China earthquake (2014), the Cyclone Ita in the Solomon Islands (2014), the flooding in Bosnia and Herzegovina (2014), and to provide vital information for relief efforts after the Nepal earthquakes and the Cyclone Pam in Vanuatu (2015).¹³³ In her report, Blyth states that in January 2013, the UN Security Council authorized the use of unmanned drones by the UN Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO).¹³⁴ Humanitarian drones have also the potential to significantly assist refugees during crises, as demonstrated by Operation Mare Nostrum.

The use of drones in the context of refugee crisis, brings attention to the critical issue of borders: refugees fleeing their countries inevitably cross borders into new territories. This brings us to the second pivotal role of drones explored in this thesis: their function as border surveillance tools.

2.2.2 *Surveillance Drones*

In contrast to humanitarian drones focusing on human security, thus on individuals, drones in border surveillance focus attention on the security of a state's borders over that of individuals. This distinction is crucial for understanding the dual-use nature of drone technology and its implications for migration management. Humanitarian drones are deployed with the primary goal of saving lives and providing assistance to those in distress. They operate in the spirit of human security, emphasizing the protection and welfare of individuals. On the other hand, surveillance drones are primarily used to enforce border security and control. Their deployment is driven by state interests in maintaining and securing borders against perceived threats. These drones are equipped with advanced surveillance technologies, such as electro-optical, infra-red, and radar sensors, which enable them to monitor and track movements across vast areas. This focus on border security often prioritizes the sovereignty and safety of the state over the individual security of migrants and refugees.

In Europe, the use of drones in border surveillance is part of a broader policy aimed at enhancing the surveillance of the European Union's external borders.¹³⁵ The EU's authority in

¹³² Kristin Bergtora Sandvik, et Maria Gabrielsen Jumbert, "Les drones humanitaires", *Revue internationale et stratégique*, vol. 98, no. 2, (2015): 139-146.

¹³³ Patrick Meier, "Humanitarians in the Sky: Using UAVs for Disaster Response", *Drones and Aerial Observation New Technologies for Property Rights, Human Rights, and Global Development: A Primer*, (New America, 2015):57-62, <http://drones.newamerica.org/primer/Chapter%206.pdf>.

¹³⁴ Fiona Blyth, "UN Peacekeeping Deploys Unarmed Drones to Eastern Congo", *The Global Observatory*, accessed May 29, 2024, <https://theglobalobservatory.org/2013/02/un-peacekeeping-deploys-unarmed-drones-to-eastern-congo/>.

¹³⁵ Luisa Marin, "The Humanitarian Drone and the Borders: Unveiling the Rationales Underlying the Deployment of Drones in Border Surveillance", *The Future of Drone Use : Opportunities and Threats from*

border surveillance stems from the Schengen process, which eliminated internal border controls between EU Member States.¹³⁶ Consequently, this has necessitated the strengthening of controls at the EU's external borders, along with implementing supportive policies.¹³⁷

Hayes, Jones and Töpfer observed that in recent years multiple European and international agencies have collaborated on EU-funded research programs aimed at transferring drone technology from the military to the non-military sector.¹³⁸ In 2012 the European Commission announced that it would coordinate the introduction of drones into civilian airspace in Europe, with drone tests in Greece in coordination with the Greek Coast Guard and Air Force.¹³⁹ “The RPAS tested by Frontex can carry equipment such as thermal cameras and radars,” Frontex noted. “Tests in Greece and Italy will be completed this year. In Portugal, Frontex is using a smaller pilotless aircraft to monitor the North Atlantic Ocean alongside the European Maritime Safety Authority (EMSA), the National Republican Guard, and the Portuguese Air Force and Navy.”¹⁴⁰ At the end of April 2013, Spain launched a multi-million-euro border control project involving the deployment of drones, satellites, and aerostats over the southern Mediterranean. The aim is to provide the EU with an operational and technical framework that enhances situational awareness and improves the reaction capabilities of authorities monitoring the EU's external borders.¹⁴¹

Završnik argues that drones serve primarily as aircraft and secondly as intelligence, surveillance, target-acquisition, and reconnaissance (ISR or ISTAR) machines. They are capable of performing surveillance, monitoring, and intelligence operations, typically conducted by public agencies responsible for border control functions, thus reducing risks for border guards.¹⁴²

Ethical and Legal Perspectives Bart Custers ed. (Asser Press, Springer, 2016): 116-130, <https://doi.org/10.1007/978-94-6265-132-6>.

¹³⁶ Luisa Marin, “The Humanitarian Drone and the Borders: Unveiling the Rationales Underlying the Deployment of Drones in Border Surveillance”, *The Future of Drone Use : Opportunities and Threats from Ethical and Legal Perspectives* Bart Custers ed. (Asser Press, Springer, 2016): 116-130, <https://doi.org/10.1007/978-94-6265-132-6>.

¹³⁷ Marin, “The Humanitarian Drone and the Borders”, 116-130.

¹³⁸ Ben Hayes, Chris Jones & Eric Töpfer, *Eurodrones Inc.* (Amsterdam: Transnational Institute & Statewatch, 2014), accessed May 29, 2024, <https://www.statewatch.org/media/documents/news/2014/feb/sw-tni-eurodrones-inc-feb-2014.pdf>.

¹³⁹ “Frontex begins testing unmanned aircraft for border surveillance”, News Release, *Frontex*, accessed on May 30, 2024, <https://frontex.europa.eu/media-centre/news-release/frontex-begins-testing-unmanned-aircraft-for-border-surveillancezSQ26A>.

¹⁴⁰ “Frontex begins testing unmanned aircraft for border surveillance”, *Frontex*.

¹⁴¹ “Collaborative evaluation Of border Surveillance technologies in maritime Environment by pre-operational validation of innovative solutions”, *European Commission*, accessed May 30, 2024, <https://cordis.europa.eu/project/id/313184>.

¹⁴² Aleš Završnik, *Drones and Unmanned Aerial Systems : Legal and Social Implications for Security and Surveillance* (Springer, 2016): 10, <https://doi.org/10.1007/978-3-319-23760-2>.

This chapter has provided an in-depth exploration of the dual-use nature of drones, highlighting their evolution from military origins to their current applications in humanitarian assistance and border surveillance, thus answering the sub question “How has drone technology evolved from military to dual-use, humanitarian, and surveillance applications?” The technological paradox of drones, capable of both saving and taking lives, underscores the complexity of their role in modern society. By examining the various applications of drones in refugee crises, particularly in search and rescue operations and data collection, this chapter has laid a comprehensive foundation for understanding their impact on migration management. The subsequent chapter will delve into the theoretical frameworks that can explain the relationship between technology and migration.

Chapter 3:

Drones And Migration: Theories.

The previous chapters provided a historical background of Lampedusa and examined the dual roles of drones as humanitarian and surveillance tools. Building on this foundation, the present chapter will introduce and explore the theoretical frameworks that will guide the analysis of the relationship between technology and migration in the context of the refugee crisis in Lampedusa. It will answer the following question: What theories will help me analyse the relationship between technology and migration? Theoretical frameworks are deduced from the empirical analysis of the data corpus, which identified three primary logics driving the use of drones by Italian authorities: technological capability, humanitarianism, and securitisation. Each of these logics aligns with a corresponding theoretical framework, providing a structured approach to analyse the complex dynamics at play in the deployment of drones for managing the refugee crisis. This theoretical foundation will support the subsequent analysis of empirical data and case study in the next chapter.

3.1 Theory of Technological Capability

Technological capability refers to an organization's strength derived from its technological resources, providing a competitive edge. For nations, this translates into strategic advantages in innovation and security. Thus, technological capability can be understood as the capacity or ability of a state or actor to develop, utilize, and leverage technology for various purposes such as military power, surveillance, communication, and overall advancement in a technologically driven world.¹⁴³

Eriksson discusses technology as a transformative factor in global politics and globalization, influencing state behaviour, power dynamics, security challenges, and governance structures in the international system.¹⁴⁴ Similarly, Bousquet delves into the historical evolution of military technology, including drones, and their impact on warfare and surveillance. He argues that the perception and utilization of technology shape military strategies and international security policies.¹⁴⁵ Drezner explores how technological change influences economic growth, power dynamics, norms, military capabilities, and societal

¹⁴³ Johan Eriksson and Lindy M. Newlove-Eriksson, "Theorizing technology and international relations: prevailing perspectives and new horizons", *Technology and International Relations*, ed. by Giampiero Giacomello, Francesco N. Moro, and Marco Valigi (Edward Elgar Publishing Limited, 2021), 1-22.

¹⁴⁴ Eriksson and Newlove-Eriksson, "Theorizing technology and international relations", 1-22.

¹⁴⁵ Antoine J. Bousquet, "Conclusions", in *The Eye of War : Military Perception from the Telescope to the Drone* (University of Minnesota Press, 2018), 191-197, <https://muse.jhu.edu/book/61604/>.

disruptions in international relations. The interplay between technology and world politics is complex and multifaceted, shaping the behaviour of states and non-state actors on the global stage.¹⁴⁶ Meanwhile, Hoijtink and Leese emphasize the importance of understanding agency as a dynamic and emergent concept that is produced through interactions between humans and non-humans within socio-technical systems. By focusing on how technologies co-produce, alter, transform, and distribute agency within international politics, the authors suggest a nuanced approach to studying the role of technology in shaping international relations. This perspective implies a recognition of technology as more than just a passive tool but as a dynamic force that influences and is influenced by human actions and interactions.¹⁴⁷

Within classical International Relations literature, technology have often been treated as the straightforward outcome of technological progress. As part of this reading, technology is often either treated as a neutral tool that is fully controlled by human agents, or as an object that is largely outside of human control. Both reflect a tendency toward a technological determinism in which technology determines the course of social action but is itself not part of those social and political processes.¹⁴⁸

Technological capability can be further examined through different theoretical lenses within International Relations. Within realism, technology is seen as a tool that can enhance a state's power and influence in the international arena, but it is not believed to fundamentally alter the underlying dynamics of international relations.¹⁴⁹ Within liberalism, technology is seen as a transformative force that promotes cooperation, interdependence, and progress in international relations. It is viewed as a tool that can enhance communication, governance, and human development on a global scale.¹⁵⁰ Within constructivism, technology is seen as a socially constructed entity that is intertwined with social norms, identities, and interactions. Constructivists focus on how technology influences and is influenced by social factors, emphasizing the role of shared understandings and identities in shaping states' responses to technological developments in international relations.¹⁵¹

Technological capability encompasses the ability of states and organizations to develop, utilize, and leverage technology for various purposes, ranging from military power and

¹⁴⁶ Daniel Drezner, "Technological change and international relations", *International Relations*, 33(2): 286-303, <https://doi-org.proxy.library.uu.nl/10.1177/0047117819834629>.

¹⁴⁷ Marijn Hoijtink, Matthias Leese, "How (not) to talk about technology", in *Technology and Agency in International Relations* (London: Routledge, 2019), 1-23.

¹⁴⁸ Hoijtink, Leese, "How (not) to talk about technology", 1-23.

¹⁴⁹ Johan Eriksson, Lindy M. Newlove-Eriksson, "Theorizing technology and international relations: prevailing perspectives and new horizons", *Technology and International Relations*, edited by Giampiero Giacomello, Francesco N. Moro, and Marco Valigi (Edward Elgar Publishing Limited, 2021), 1-22.

¹⁵⁰ Eriksson, Newlove-Eriksson, "Theorizing technology and international relations", 1-22.

¹⁵¹ Eriksson, Newlove-Eriksson, "Theorizing technology and international relations", 1-22.

surveillance to communication and innovation. Overall, scholarship on technology has contributed to a nuanced understanding of how technological advancements influence global politics and international relations. Their work underscores the dual-use nature of technology, its role in shaping social structures, and its impact on state behaviour and security policies.

3.2 Theory of Humanitarianism

To understand the role of drones in humanitarian efforts, it is essential to first grasp what humanitarianism entails. Maxwell and Gelsdorf argue that there is no straightforward definition for humanitarianism, humanitarian action, or the humanitarian system.¹⁵² These terms are often used interchangeably but actually denote different concepts: a philosophy or belief system (humanitarianism), an activity (humanitarian action), or an institution (humanitarian system).¹⁵³ According to the authors, these entities comprise various actors with diverse motivations, resources, and perspectives.¹⁵⁴

Despite this complexity, Maxwell and Gelsdorf contend that there is a generally accepted understanding of humanitarian action as activities aimed at saving lives, protecting livelihoods, alleviating suffering, and maintaining human dignity during and after crises, as well as preventing and preparing for such situations.¹⁵⁵

Fassin discusses humanitarianism in the context of its moral imperatives and its intersection with politics.¹⁵⁶ He emphasizes that humanitarianism is not apolitical and critiques the way it is often framed in relation to military interventions and political agendas. The author highlights the ethical foundation of humanitarian action, which is centred on saving lives and alleviating suffering, but he also points out the complexities and contradictions that arise when humanitarian efforts become entangled with political motives and military actions.¹⁵⁷ Thus, his position conveys a nuanced understanding of humanitarianism as a practice that is deeply intertwined with moral, political, and social dimensions.¹⁵⁸ He notes that humanitarian organizations are becoming politicized, while political figures often transition into roles within humanitarian organizations, blurring the lines between the two spheres. This intersection raises

¹⁵² Daniel G. Maxwell, Kirsten Heidi Gelsdorf, “Introduction”, in *Understanding the Humanitarian World*, (Routledge, 2019), 5, <https://doi.org/10.4324/9780429279188>.

¹⁵³ Maxwell, and Gelsdorf, *Understanding the Humanitarian World*, 5.

¹⁵⁴ Maxwell, and Gelsdorf, *Understanding the Humanitarian World*, 5.

¹⁵⁵ Maxwell, and Gelsdorf, *Understanding the Humanitarian World*, 5.

¹⁵⁶ Didier Fassin, “Humanitarianism as a Politics of Life”, *Public Culture* 19, no. 3 (n.d.): 499–520, <https://doi.org/10.1215/08992363-2007-007>.

¹⁵⁷ Fassin, “Humanitarianism as a Politics of Life”, 499–520.

¹⁵⁸ Fassin, “Humanitarianism as a Politics of Life”, 499–520.

important questions about the true motivations behind humanitarian efforts and the potential for political influences to shape humanitarian actions.¹⁵⁹

Similarly, Prem Kumar Rajaram critiques the conventional understanding and practices associated with humanitarianism, particularly in how it relates to the representation of refugees.¹⁶⁰ He highlights the tendency of humanitarian agencies to depict refugees primarily as helpless victims, which he argues leads to a decontextualized and depoliticized view of their experiences.¹⁶¹ He suggests that humanitarianism should be redefined to encompass a more nuanced understanding of refugee identities, emphasizing the importance of context, history, and the voices of refugees themselves. This call for a rethinking of humanitarianism implies a broader and more complex approach.¹⁶²

Building on these critiques, Fotaki discusses humanitarianism in the context of its evolution and the challenges it faces, particularly in relation to the treatment of refugees and forced migrants.¹⁶³ She emphasizes the need for a humanitarian approach that recognizes universal human rights and the shared vulnerability of individuals, without creating moral hierarchies or distinctions.¹⁶⁴ Fotaki argues for a rights-based approach to humanitarianism, which is rooted in medical ethics and aims to protect refugees from harm and ensure their access to necessary support.¹⁶⁵ This perspective aligns with the views of Fassin and Rajaram, reinforcing the idea that humanitarianism must evolve to address the political, social, and ethical dimensions of aid.

Finally, the principle of humanitarianism is derived from the Fundamental Principles of the International Red Cross and Red Crescent Movement.¹⁶⁶ These Fundamental Principles were initially specific to the Red Cross and Red Crescent, but over time, they have come to be applied by NGOs and UN actors as well. There is a common belief that these principles originate from international law, especially international humanitarian law (IHL).¹⁶⁷ Most

¹⁵⁹ Didier Fassin, “Humanitarianism as a Politics of Life”, *Public Culture* 19, no. 3 (n.d.): 499–520, <https://doi.org/10.1215/08992363-2007-007>.

¹⁶⁰ Prem Kumar Rajaram, “Humanitarianism and Representations of the Refugee”, *Journal of Refugee Studies*, (2002): 247–64.

¹⁶¹ Rajaram, “Humanitarianism and Representations of the Refugee”, 247–64.

¹⁶² Rajaram, “Humanitarianism and Representations of the Refugee”, 247–64.

¹⁶³ Marianna Fotaki, “A Crisis of Humanitarianism: Refugees at the Gates of Europe”, *International Journal of Health Policy and Management* 8, no. 6 (2019): 321–24, <https://doi.org/10.15171/ijhpm.2019.22>.

¹⁶⁴ Fotaki, “A Crisis of Humanitarianism”, 321–24.

¹⁶⁵ Fotaki, “A Crisis of Humanitarianism”, 321–24.

¹⁶⁶ Marina Sharpe, “It’s all relative: the humanitarian principles in historical and legal perspective”, *Humanitarian Law & Policy Blog*, March 16, 2023, <https://blogs.icrc.org/law-and-policy/2023/03/16/humanitarian-principles-historical-legal/>.

¹⁶⁷ Sharpe, “It’s all relative”.

importantly, at the core of all humanitarian actions lie the fundamental principles of humanity, impartiality, neutrality, and independence.¹⁶⁸

3.3 Theory of Securitisation

The theory of securitization, developed by the Copenhagen School of Critical Security Studies, involves framing an issue as a significant threat to entities such as states, societies, or groups.¹⁶⁹ This process relies on the social construction of a problem through a discourse of emergency, threat, and danger, which aims to justify extraordinary measures that surpass ordinary politics and legal frameworks.¹⁷⁰

Wæver, together with Buzan and De Wilde, is a prominent figure in the development of the Copenhagen School of Critical Security Studies and securitization theory, focusing on how security issues are socially constructed through discourse.¹⁷¹ According to Wæver, security is not a pre-existing condition but rather an outcome that frame an issue as a security threat. Powerful actors seek to convince relevant audiences to accept these definitions, thereby legitimizing extraordinary measures. In securitisation literature this process is executed through “securitizing agents” using “security speech acts”.¹⁷² Therefore, securitization is not merely about the existence of threats but also about the political processes that elevate certain issues to the status of security concerns, often bypassing normal political procedures.

Wæver posits that "security" can be viewed as an illocutionary act within the framework of speech act theory.¹⁷³ This implies that when an individual designates an issue as a security concern, they are not simply stating a fact; rather, they are engaging in an action that carries implications and consequences. This declaration entails a commitment to address the issue with a specific degree of seriousness and urgency, which can influence political dynamics and shape public perception.¹⁷⁴ He contends that discussing security is more intricate than just employing heightened rhetoric; it represents a deliberate action that can jeopardize established principles

¹⁶⁸ GA resolution 46/182, *OCHA*, Accessed May 28, 2024, https://www.unocha.org/sites/unocha/files/dms/Documents/120402_OOM-46182_eng.pdf; Humanitarian action is broadly defined as the material, political, and military responses by the humanitarian branches of the United Nations (UN), international NGOs, and states to specific instances of humanitarian suffering.

¹⁶⁹ Philippe Bourbeau, “Moving Forward Together: Logics of the Securitisation Process”, *Millennium*, vol. 43, no. 1 (2014): 187–206, <https://doi.org/10.1177/0305829814541504>.

¹⁷⁰ Giuseppe Campesi, “The Arab Spring and the Crisis of the European Border Regime: Manufacturing Emergency in the Lampedusa Crisis”, *Robert Schuman Centre for Advanced Studies* (European University Press, 2011): 1-21.

¹⁷¹ Holger Stritzel, “Towards a Theory of Securitization: Copenhagen and Beyond”, *European Journal of International Relations* 13, no. 3 (2007): 357–83, <https://doi.org/10.1177/1354066107080128>.

¹⁷² Bourbeau, “Moving Forward Together”, 187–206.

¹⁷³ Ronnie D. Lipschutz, “Securitization and Desecuritization”, in *On Security* (Columbia University Press, 1995), 1.

¹⁷⁴ Lipschutz, “Securitization and Desecuritization”, 1.

and order while simultaneously attempting to manage the immediate situation.¹⁷⁵ Consequently, the act of securitization bears significant responsibility and can result in considerable political ramifications, including the risk of failure and the potential loss of prestige for those who make such declarations. However, if the audience accepts the identification of a problem with a security issue, emergency measures are justified as a necessary response to eliminate the threat.¹⁷⁶

While Wæver stands firmly within the contemporary, constructivist approach to security studies, there is also a traditional approach that views security as a pre-existing reality linked to state-centric notions of defence and military threats.¹⁷⁷ In contrast, contemporary approaches, as articulated by Wæver, emphasize a more critical and reflexive understanding of security, arguing that security is constructed through political processes and discourse.¹⁷⁸ Traditional approaches often overlook the processes through which issues are securitized, treating security as a static concept rather than a dynamic one.¹⁷⁹ They focus on the outcomes of security measures rather than the implications of labelling something as a security issue.¹⁸⁰ Contemporary approaches instead highlight the process of securitization, where political actors actively frame issues as security concerns, thus justifying extraordinary measures.¹⁸¹ This approach recognizes the implications of such framing, including the potential risks and consequences associated with elevating issues to the security agenda.¹⁸² Furthermore, traditional approaches generally assume that more security is inherently better and advocate for expanding the security agenda without critically assessing the implications of doing so.¹⁸³ Contemporary approaches question this assumption, emphasizing the need to consider the political and social ramifications of securitization, including the potential for undermining democratic processes and the risks associated with framing issues in terms of security.¹⁸⁴ While traditionally the state is the primary actor in security matters, often linking security directly to state sovereignty and military capabilities,¹⁸⁵ in contemporary approaches, the influence of non-state actors and the broader societal implications of security discourse are also

¹⁷⁵ Ronnie D. Lipschutz, "Securitization and Desecuritization", in *On Security* (Columbia University Press, 1995), 1.

¹⁷⁶ Barry Buzan, O. Wæver, and J. de Wilde, *Security: A New Framework for Analysts* (London: Lynne Rienner, 1998), 23-24.

¹⁷⁷ Lipschutz, "Securitization and Desecuritization", 1.

¹⁷⁸ Lipschutz, "Securitization and Desecuritization", 1.

¹⁷⁹ Lipschutz, "Securitization and Desecuritization", 1.

¹⁸⁰ Lipschutz, "Securitization and Desecuritization", 1.

¹⁸¹ Lipschutz, "Securitization and Desecuritization", 21.

¹⁸² Lipschutz, "Securitization and Desecuritization", 21.

¹⁸³ Lipschutz, "Securitization and Desecuritization", 1.

¹⁸⁴ Lipschutz, "Securitization and Desecuritization", 1.

¹⁸⁵ Lipschutz, "Securitization and Desecuritization", 1.

considered.¹⁸⁶ They encourage a more inclusive understanding of security that encompasses various actors and perspectives.¹⁸⁷

In the literature on securitisation, two main logics are commonly discussed: the logic of exception and the logic of routine.¹⁸⁸ The logic of exception perceives security as a response to existential threats, necessitating extraordinary measures.¹⁸⁹ Conversely, the logic of routine views securitisation as a series of routinized practices carried out by bureaucrats and security professionals, often involving technology.¹⁹⁰ In the instance of drones used for border policing, it is the framing of migrants as security threats that determines if a country reacts to defend the internal security from those alleged external threats.¹⁹¹

¹⁸⁶ Ronnie D. Lipschutz, “Securitization and Desecuritization”, in *On Security* (Columbia University Press, 1995), 1.

¹⁸⁷ Lipschutz, “Securitization and Desecuritization”, 1.

¹⁸⁸ Philippe Bourbeau, “Moving Forward Together: Logics of the Securitisation Process”, *Millennium*, vol. 43, no. 1 (2014): 187–206, <https://doi.org/10.1177/0305829814541504>.

¹⁸⁹ Bourbeau, “Moving Forward Together”, 187–206.

¹⁹⁰ Bourbeau, “Moving Forward Together”, 187–206

¹⁹¹ Aleš Završnik, *Drones and Unmanned Aerial Systems : Legal and Social Implications for Security and Surveillance* (Springer, 2016): 10, <https://doi.org/10.1007/978-3-319-23760-2>.

Chapter 4:

Drones In Lampedusa: A Competitive Advantage?

In the previous chapter, I explored theories of technological capability, humanitarianism, and securitisation. Together with the background chapters one and two, the purpose of this forthcoming analysis becomes evident. By addressing the following sub-question “What technological factors motivated the deployment of drones in these operations?”, this chapter will focus exclusively on the technological capability logic behind operations like Mare Nostrum, Triton, Sophia, and Themis. The primary goal is to examine the specific technological motivations and frameworks that guided the implementation of drones in Lampedusa between 2013 and 2018, considering aspects such as operational efficiency, strategic advantages, and the perception of technological solutions as essential for modern challenges. Chapter five will then focus on the humanitarian logic, and Chapter six will address the securitisation logic, providing a comprehensive understanding of the multifaceted approaches to managing the refugee crisis on the island by Italian authorities.

4.1 A Race for Drones: Italy’s Technological Capability.

As seen in the previous chapter, technological capability can be understood as the capacity or ability of a state or actor to develop, utilize, and leverage technology for various purposes such as military power, surveillance, and overall advancement in a technologically driven world.¹⁹² In particular, drones and drone technology are considered by many to be one of the most revolutionary Industry 4.0 technologies, highlighting their significance within the broader scope of technological capability.¹⁹³ In this context, drones embody the intersection of innovation, strategic application, and technological prowess, making them pivotal in modern statecraft.¹⁹⁴

This pivotal role of drones in technological capability is further underscored by their dual-use nature. Historically, military innovations often transition into civilian applications, exemplifying dual-use technologies.¹⁹⁵ As discussed in previous chapters, dual-use drones are

¹⁹² Johan Eriksson and Lindy M. Newlove-Eriksson, “Theorizing technology and international relations: prevailing perspectives and new horizons”, *Technology and International Relations* Edited by Giampiero Giacomello, Francesco N. Moro, and Marco Valigi (Edward Elgar Publishing Limited, 2021): 1-22.

¹⁹³ Bernardino Quattrociochi, et al, *Industry Dynamics and Industry 4.0 : Drones for Remote Sensing Applications* 1st ed., (Routledge, 2022): <https://www.oreilly.com/library/view/-/9781000770124/>.

¹⁹⁴ Michael Mayer, “The New Killer Drones: Understanding the Strategic Implications of next-Generation Unmanned Combat Aerial Vehicles”, *International Affairs* (Royal Institute of International Affairs 1944-) 91, no. 4 (2015): 765–80, <http://www.jstor.org/stable/24539203>.

¹⁹⁵ Luisa Marin, “The Humanitarian Drone and the Borders: Unveiling the Rationales Underlying

a clear example of this trend. However, Csernatoni argued that there needs to be an analysis of how the discursive framing of dual-use drones influences Europe's policy priorities. This involves examining the dominant narratives or "regimes of truth" that shape perceptions of technological rationality and how these narratives are reflected in Europe's strategic decisions. These decisions include prioritizing and investing in high-tech military capabilities.¹⁹⁶ Drawing on Csernatoni's analysis, it is crucial to explore how these discursive framings have shaped Italy's use of drone technology.

In 2010 Italy purchased from the United States twelve drones for non-military purposes, showcasing their versatility and importance.¹⁹⁷ The six MQ-1 Predators and six MQ-9 Reapers (Predator Bs), were utilized for the search and rescue operation Mare Nostrum in 2013.¹⁹⁸ This dual-use approach aligns with the narratives of technological rationality, suggesting that Italy's policy decisions were influenced by the perceived efficiency and necessity of advanced technologies. The decision to invest in these advanced drones reflects a "regime of truth" that prioritizes technological solutions for both security and humanitarian challenges. By adopting these dual-use technologies, Italy enhanced its ability to monitor and manage its borders, conduct intelligence and reconnaissance missions, and provide timely humanitarian assistance.

At the end of 2014, operation Mare Nostrum ended, but the Italian technological advancement didn't. At the beginning of 2015, Italian Minister of Defence Roberta Pinotti announced plans to open a drone piloting training centre at the Amendola military airport in Foggia. She stated, "The integration of European Defence can be further consolidated with the establishment of a European-level training centre for Remotely Piloted Aircraft (RPA) at Amendola".¹⁹⁹ This national proposal fits into the broader framework of European multilateral cooperation in the RPA sector, where the Italian Air Force demonstrates international excellence.²⁰⁰ Thus, Italy's strategic decisions to deploy drones for both military and non-military purposes can be seen as part of the broader European trend mentioned by Csernatoni.

the Deployment of Drones in Border Surveillance", Custers, Bart, editor. *The Future of Drone Use: Opportunities and Threats from Ethical and Legal Perspectives* (Asser Press, Springer, 2016): 116-130, <https://doi.org/10.1007/978-94-6265-132-6>.

¹⁹⁶ Raluca Csernatoni, "Between rhetoric and practice: technological efficiency and defence cooperation in the European drone sector", *Critical Military Studies*, 7 (2019): 212–236, <https://doi.org/10.1080/23337486.2019.1585652>.

¹⁹⁷ Luisa Marin, Kamila Krajčiková, "Deploying Drones in Policing Southern European Borders: Constraints and Challenges for Data Protection and Human Rights", Završnik, A. (eds) *Drones and Unmanned Aerial Systems*, (Springer, Cham, 2016): 101-127, https://doi-org.proxy.library.uu.nl/10.1007/978-3-319-23760-2_6.

¹⁹⁸ Maria Gabrielsen Jumbert, "Creating the EU Drone: Control, Sorting and Search and Rescue at Sea", in *The Good Drone* (London: Routledge, 2016): 89–108.

¹⁹⁹ "Italia, Germania e Francia svilupperanno droni per intelligence e usi militari", *Il Sole 24Ore*, 31 marzo 2015, accessed on June 10, 2024, https://st.ilsole24ore.com/art/mondo/2015-03-31/italia-germania-e-francia-svilupperanno-droni-intelligence-e-usi-militari-160654.shtml?uid=ABNJIFID&refresh_ce=1.

²⁰⁰ "Italia, Germania e Francia svilupperanno droni per intelligence e usi militari", *Il Sole 24Ore*.

The deployment of drones by Italian authorities to manage the refugee crisis in Lampedusa can also be traced back to Italy's significant investments in technological capabilities. A prime example of this is the advancements made at the Italian Amendola Centre. In 2015, the centre incorporated a state-of-the-art flight simulator designed to train mission commanders, pilots, and sensor operators on Predator drones.²⁰¹ "We plan to develop the Italian Air Force Centre of Excellence for unmanned systems, a first for training in the European region, and we will invite future users from allied Nations to jointly train at our facility" said an official from the Italian Air Force in a press release.²⁰² This simulator included ground control stations, sensor simulation software, communication systems, scenario and weather simulation, and briefing stations.²⁰³ It enabled comprehensive training, such as networked exercises and emergency simulations, attracting interest from NATO and non-NATO air forces.²⁰⁴ This advanced training infrastructure underscores Italy's commitment to maintaining high operational standards and readiness in drone technology. The ability to conduct sophisticated training exercises ensured that Italian drone operators were well-prepared to handle a variety of missions, including those involving complex humanitarian and security challenges.

In 2017, further demonstrating Italy's technological prowess, Frontex entered into a €2.25 million contract with Leonardo S.p.A. to provide a Falco EVO drone for maritime surveillance for 300 hours.²⁰⁵ The Falco EVO, an unmanned surveillance vehicle equipped with a variety of multispectral sensors, was tested in Lampedusa. This vehicle enabled reliable real-time remote target detection, classification, identification, and tracking.²⁰⁶ The deployment of the Falco EVO in Lampedusa illustrates how Italy leveraged its technological capabilities to address the practical challenges of monitoring and managing maritime borders.

In 2018, Frontex used Italian Air Force Predator drones in the new Operation Sophia (which initially started in 2015), one element of a broader EU comprehensive response to the migration issue, and later, in Operation Themis, the mission replacing Operation Triton.²⁰⁷

²⁰¹ "CAE and GA-ASI to develop Predator UAS simulator for Italian Air Force", *CAE*, June 2015, accessed on June 10, 2024, <https://www.cae.com/news-events/press-releases/cae-and-ga-asi-to-develop-predator-uas-simulator-for-italian-air-force/>.

²⁰² "CAE and GA-ASI to develop Predator UAS simulator for Italian Air Force", *CAE*.

²⁰³ "CAE and GA-ASI to develop Predator UAS simulator for Italian Air Force", *CAE*.

²⁰⁴ "CAE and GA-ASI to develop Predator UAS simulator for Italian Air Force", *CAE*.

²⁰⁵ "10629-2018 Trial of Remotely Piloted Aircraft System (RPAS) for long endurance Maritime Aerial Surveillance", *EU tenders*, European Union, accessed on June 10, 2024, <https://ted.europa.eu/en/notice/-/detail/10629-2018>.

²⁰⁶ Falco Family of UAS, Global Surveillance Enhanced Awareness, Electronic Division, *Leonardo*, Accessed on June 10, 2024, https://electronics.leonardo.com/documents/16277707/18368664/Falco+Family+of+UAS+%28MM09053%29_HQ.pdf?t=1671012016266.

²⁰⁷ Iris Blay Puntas, "The use of drones for maritime surveillance and border control", *Working Papers*

The Amendola Centre and the Sigonella Naval Station can also be considered as part of the technological capability of Italy. US drones operated from the Italian station in Sicily as well as NATO's five Global Hawks.²⁰⁸

These examples suggest that Italy's advanced technological infrastructure and capabilities in drone technology may have influenced the decision to deploy drones in managing the Lampedusa refugee crisis between 2013 and 2018. First, the deployment of drones in the humanitarian operation Mare Nostrum positioned Italy as a technological leader in the sector. Secondly, the comprehensive training at the Amendola Centre ensured that Italian operators were well-equipped to utilize drone technology effectively, enabling them to conduct complex humanitarian and security missions. For instance, the deployment of the Falco EVO and Predator drones demonstrated Italy's ability to integrate advanced surveillance systems into operational frameworks, providing real-time remote target detection and enhancing maritime border monitoring. Moreover, the collaboration between Frontex and Italian entities such as Leonardo S.p.A. underscored the strategic partnerships that bolstered Italy's technological prowess. Leonardo is an Italian public giant in the security, aerospace and defence sector, listed on the stock exchange and majority shareholder of the Ministry of Economy. The largest company in Europe in the armaments sector, thirteenth in the world (14.1 billion euros in turnover in 2021 and the same number of orders in the portfolio, a net profit of 587 million and 106 offices in the world with almost 50 thousand employees) is also at the forefront of the rearmament of the European Union.²⁰⁹

This collaboration facilitated the practical application of drone technology in real-world scenarios, reinforcing the reputation of technological rationality and efficiency that shapes Italy's policy decisions. By investing in and developing such capabilities, Italy was able to project itself as a technologically advanced nation capable of addressing contemporary challenges through innovation. Furthermore, the strategic use of technology aimed not only to improve operational efficiency but also to enhance Italy's reputation on the international stage. This dual focus on humanitarian assistance and security aligns with the broader "regime of truth" discussed by Csernatonì, where technological solutions are perceived as essential for addressing modern challenges. While these advancements contribute to more effective crisis

Centre Delàs d'Estudis per la Pau (2022): 1-23, https://centredelas.org/wp-content/uploads/2022/06/WP_DronesFrontex_ENG.pdf.

²⁰⁸ "First NATO AGS remotely piloted aircraft ferries to Main Operating Base in Italy", News, *NATO*, Accessed on June 10, 2024, https://www.nato.int/cps/en/natohq/news_171171.htm.

²⁰⁹ Alessandro De Pascale, "Lo stabilimento Leonardo dove si costruiscono i droni", *L'Espresso*, June 27, 2022, <https://lespresso.it/c/economia/2022/6/26/lo-stabilimento-leonardo-dove-si-costruiscono-i-droni/14461>.

management, they also reflect Italy's commitment to maintaining a competitive edge in the evolving landscape of high-tech military and civilian applications.

Therefore, the deployment of drones in managing the refugee crisis is not merely a tactical decision but a reflection of Italy's broader strategic priorities and investments in technology. This paradigm shift towards embracing innovative solutions highlights Italy's proactive approach in leveraging advanced technologies to meet both national and international objectives. The data presented in this section supports the hypothesis that these capabilities were a crucial factor in the decision-making process of Italian authorities, demonstrating a paradigm shift towards embracing innovative technological solutions.

However, while technological capability is significant, it is not the sole factor driving the use of drones. To fully understand the rationale behind Italy's deployment of drones, it is useful to revisit the concept of technological determinism discussed in Chapter three. Technological determinism posits that technological advancements inherently drive societal progress and guarantee better outcomes. In the context of migration, drones have been consistently framed as a "solution" to border management "problems".²¹⁰ In the Lampedusa refugee crisis, this perspective suggests that the deployment of drones, due to their advanced capabilities, would naturally lead to improved management. Yet, this view is overly simplistic and problematic as technological capability does not account for the broader strategic goals, including humanitarian and security objectives. For instance, although Frontex asserts that drone and plane sightings can save lives, the tragic loss of at least 25,313 individuals in the Mediterranean since 2014 show a different reality.²¹¹ Despite the deployment of drones, migration patterns have not significantly changed. The number of migrants attempting to cross the Mediterranean to reach Italy has remained high due to ongoing conflicts and economic instability in their home countries: 170,664 in 2014, peaking at 181,459 in 2016, compared to 10,236 in 2009 and 40,304 in 2013.²¹² ²¹³ Gabriele Iacovino, director of the Centre for

²¹⁰ Bruno Olivera Martins, & Maria G. Jumbert, "EU Border technologies and the co-production of security 'problems' and 'solutions.'", *Journal of Ethnic and Migration Studies*, 48 (2020):1430–1447, <https://doi.org/10.1080/1369183X.2020.1851470>.

²¹¹ Judith Sunderland and Lorenzo Pezzani, "Airborne Complicity Frontex Aerial Surveillance Enables Abuse", *Human Rights Watch*, accessed on June 20, 2024, <https://www.hrw.org/video-photos/interactive/2022/12/08/airborne-complicity-frontex-aerial-surveillance-enables-abuse>.

²¹² "Migrants arrivals in Italy by Sea 2014-2023", *Statista Research Department*, accessed on July 17, 2024, <https://www.statista.com/statistics/623514/migrant-arrivals-to-italy/>.

²¹³ However, this number decreased significantly to 11,400 in 2019, not because of drones, but rather because of stricter immigration policies enacted between 2018 and 2019 by the right-wing and populist government supported by the League and the Five-Star Movement, see "Migrants arrivals in Italy by Sea 2014-2023", *Statista Research Department*, accessed on July 17, 2024, <https://www.statista.com/statistics/623514/migrant-arrivals-to-italy/>.

International Studies, criticizes the move to using drones.²¹⁴ He describes aerial surveillance without accompanying ships as a “naval mission without a naval force,” suggesting that it avoids the difficult political decisions about what to do with rescued migrants.²¹⁵ Furthermore, a report by Lighthouse and Der Spiegel confirmed that Frontex, through Italian drones, has shared locations of migrant boats with Libya's coast guard “more than two thousand times in three years, despite watching them whip, beat and shoot at passengers”.²¹⁶

Finally, the interplay between technological capability and other logics such as humanitarian efforts, and securitisation strategies is crucial. Analysing drone use through a technological lens alone misses how these logics intersect and influence the overall management of the refugee crisis. The subsequent chapters will explore these humanitarian and securitisation logics in detail, providing a more comprehensive understanding of the multifaceted approaches needed to address this complex issue.

²¹⁴ Daniel Howden, Apostolis Fotiadis and Antony Loewenstein, “Once migrants on Mediterranean were saved by naval patrols. Now they have to watch as drones fly over”, *the Guardian*, Accessed on June 17, 2024, <https://www.theguardian.com/world/2019/aug/04/drones-replace-patrol-ships-mediterranean-fears-more-migrant-deaths-eu>.

²¹⁵ Howden, et al, “Once migrants on Mediterranean were saved by naval patrols”, *the Guardian*.

²¹⁶ Bashar Deeb e Steffen Lüdke, “Come Frontex sta spingendo i migranti tra le braccia della guardia costiera libica”, *Der Spiegel*, Accessed on June 17, 2024, <https://www.spiegel.de/ausland/wie-frontex-migranten-in-die-arme-der-libyschen-kuerstenwache-treibt-a-702635a9-8ec8-4849-bea7-dcffbe62708b>.

Chapter 5:

The Humanitarian Logic behind the Use of Drones in Lampedusa.

Building on the analysis of technological capability in Chapter four, this chapter focuses on the humanitarian motivations behind the use of drones in Lampedusa between 2013 and 2018. It specifically examines the Mare Nostrum operation to determine how this logic informed the decision to use unmanned aerial vehicles by Italian authorities. This chapter, therefore, aims at answering the following sub-question: What humanitarian objectives drove the use of drones in these operations?

5.1 Mare Nostrum And Italy's Humanitarian Drones.

Mare Nostrum provides a compelling case to explore the hypothesis that drone deployment served a humanitarian purpose given the explicitly humanitarian character of the mission.²¹⁷ In 2013, the Italian navy deployed a small Camcopter S-100 UAV from its vessels, specifically for conducting Search and Rescue (SAR) operations.²¹⁸ The Director of Frontex Ilkka Laitinen, explained: “unmanned aerial vehicles [...] could be deployed at sea to locate, for instance, migrants in distress”, demonstrating the willingness to prioritize SAR efforts over, for example, border control.²¹⁹ During Mare Nostrum, through drones, the humanitarian action therefore experienced a “technological turn”.²²⁰

The key to understanding this humanitarian character lies in the Search and Rescue (SAR) approach, which was central to Mare Nostrum's operation. Fundamentally grounded in humanitarian values, such as saving lives, the SAR approach underscores the moral obligation to assist individuals in distress at sea.²²¹ This principle is aligned with several international conventions, including the United Nations Convention on the Law of the Sea (UNCLOS), the International Convention for the Safety of Life at Sea (SOLAS), and the International Convention on Maritime Search and Rescue (SAR), which establish a detailed framework of laws and regulations for maintaining order in the world's seas and oceans. These conventions

²¹⁷ Luisa Marin, “The Humanitarian Drone and the Borders: Unveiling the Rationales Underlying the Deployment of Drones in Border Surveillance”, *Drones Here There and Everywhere*, Bart Custers Editor, (Springer, 2016), 127.

²¹⁸ Kristin Bergtora Sandvik, Maria G. Jumbert and al., “Humanitarian technology: a critical research agenda”, *International Review of the Red Cross* (2014): 1-24.

²¹⁹ Nikolaj Nielsen, “Frontex chief looks beyond EU borders”, *EUobserver*, 14 January 2013, <http://euobserver.com/fortress-eu/118471>.

²²⁰ Sandvik, Jumbert and al., “Humanitarian technology”, 1-24.

²²¹ Stefania Panebianco, “The Mare Nostrum Operation and the SAR approach: the Italian response to address the Mediterranean migration crisis”, *EUMed EA Online Working Paper Series*, 3 (2016), 1-27.

set forth the rules and obligations for providing assistance to those in distress at sea.²²² Additionally, Article 1158 of the Italian Code of Navigation mandates that the captain of any national or foreign ship, craft, or airplane who fails to provide or attempt rescue when required by this code, faces imprisonment of up to two years: ““The Master of a national or foreign ship, craft or airplane, who fails to assist or who does not attempt a salvage in those cases in which he is obliged to do so in accordance with the present code, is punishable with imprisonment for up to two years.”²²³ Thus, SAR approach, as well as the Italian Code of Navigation, align with the concept of humanitarian action intended as activities aimed at saving lives, protecting livelihoods, alleviating suffering, and maintaining human dignity during and after crises, as well as preventing and preparing for such situations.²²⁴

Data of those rescued at sea demonstrate the efficacy of the SAR approach of the humanitarian drones. The IOM praised Italy's Life-Saving Mare Nostrum Operation, commenting that “Over the past 10 months, this initiative has successfully rescued and brought to safety approximately 150,000 “irregular” migrants, many of whom are now seeking asylum in Europe”.²²⁵ IOM Director General William Lacy Swing in a statement about the operation, stated: “This is not a crisis of a so-called ‘excess’ of migrants overburdening the continent, but an emergency of more people needing protection, aid and safe migration channels, especially for those not covered by existing protection systems.”²²⁶ He further stressed that saving lives, as demonstrated by Mare Nostrum, must remain a priority and called for continued support for rescue operations through a coordinated EU approach.²²⁷

There is, however, an important aspect to consider when using humanitarian logic to understand the deployment of drones during Mare Nostrum Operation. While this rationale emphasizes the humanitarian intent behind such decision, it is essential to challenge it to uncover potential discourse. Drawing from Fairclough and Norman, discourse refers to how language and narratives shape and are shaped by social practices.²²⁸ In the context of drone

²²² Stefania Panebianco, “The Mare Nostrum Operation and the SAR approach: the Italian response to address the Mediterranean migration crisis”, *EUMed EA Online Working Paper Series*, 3 (2016), 1-27.

²²³ Art. 1158, “Omissione di assistenza a navi o persone in pericolo”, *Gazzetta Ufficiale*, Codice della navigazione, [https://www.gazzettaufficiale.it/atto/serie_generale/caricaArticolo?art.versione=1&art.idGruppo=140&art.flagTipoArticolo=1&art.codiceRedazionale=042U0327&art.idArticolo=1158&art.idSottoArticolo=1&art.idSottoArticolo1=10&art.dataPubblicazioneGazzetta=1942-04-18&art.progressivo=0#:~:text=1158\)-,Art.,reclusione%20fino%20a%20due%20anni](https://www.gazzettaufficiale.it/atto/serie_generale/caricaArticolo?art.versione=1&art.idGruppo=140&art.flagTipoArticolo=1&art.codiceRedazionale=042U0327&art.idArticolo=1158&art.idSottoArticolo=1&art.idSottoArticolo1=10&art.dataPubblicazioneGazzetta=1942-04-18&art.progressivo=0#:~:text=1158)-,Art.,reclusione%20fino%20a%20due%20anni).

²²⁴ Maxwell, and Gelsdorf, *Understanding the Humanitarian World*, 5.

²²⁵ “IOM Applauds Italy’s Life-Saving Mare Nostrum Operation: “Not a Migrant Pull Factor”, News, Global, IOM UN Migration, October 31, 2014, <https://www.iom.int/news/iom-applauds-italys-life-saving-mare-nostrum-operation-not-migrant-pull-factor>.

²²⁶ “IOM Applauds Italy’s Life-Saving Mare Nostrum Operation”, *IOM UN Migration*

²²⁷ “IOM Applauds Italy’s Life-Saving Mare Nostrum Operation”, *IOM UN Migration*.

²²⁸ Norman Fairclough, “Introduction”, in *Critical Discourse Analysis : The Critical Study of Language*, 2nd ed. Hoboken (Taylor and Francis, 2013), 1-20, http://www.123library.org/book_details/?id=109941.

deployment, discourses can frame the use of technology in various ways, for instance, drones can be framed as essential tools for humanitarian assistance or as necessary measures for border security. As seen in Chapter One, during Mare Nostrum, six MQ-1 Predators and six MQ-9 Reapers or Predator Bs were launched from the Sigonella Italian and NATO Air Base in Sicily. They patrolled the Lampedusa area, however, they also patrolled Libya's southern border to gather information and ensure early detection of migrants.²²⁹ A Memorandum of Understanding (MOU) between Italy and Libya in November 2013, authorized such border surveillance activities with drones "...in order to achieve solutions regarding some matters that negatively affect the Parties (Italy and Libya) , including the clandestine immigration phenomenon and its impact, the fight against terrorism, human trafficking and fuel smuggling."²³⁰ The humanitarian rationale is not mentioned in the MOU. This scenario rather suggests a securitisation approach. The focus on combating clandestine immigration, terrorism, human trafficking, and fuel smuggling indicates that the deployment of drones was part of a broader strategy to enhance national and regional security. By surveilling Libya's southern border, Italian authorities were not merely conducting search and rescue operations but were also actively engaged in pre-emptive measures to manage and control migration flows before they reached European shores. This pre-emptive surveillance aligns with the principles of securitisation, where the state adopts extraordinary measures to address perceived threats to national security. Consequently, the use of drones in this context appears to be driven by security concerns as much as, if not more than, humanitarian ones, reflecting a complex interplay between the need to manage migration and the imperative to maintain security. While the humanitarian narrative of Mare Nostrum emphasizes the protection and rescue of migrants, it is possible that this discourse also masks underlying securitisation objectives. By framing drone usage within a humanitarian narrative, Italian authorities may have justified pre-emptive security measures, highlighting the complex interplay between humanitarian aid and security imperatives. This example suggests that the deployment of drones could serve dual purposes, necessitating a critical examination of the discourses that shape and are shaped by drone deployment in migration management.

Moreover, the integration of advanced drone technology into border surveillance underscores the prioritization of security strategies over humanitarian goals. While drones were

²²⁹ Luisa Marin, "The deployment of drone technology in border surveillance", in *The Future of Drone Use : Opportunities and Threats from Ethical and Legal Perspectives* (The Hague, Berlin: Asser Press ; Springer, 2016), 107-122.

²³⁰ "Memorandum of understanding on cooperation in the fields of development, the fight against illegal immigration, human trafficking and fuel smuggling and on reinforcing", Academic Network for Legal Studies on Immigration and Asylum in Europe, *Odysseus Network*, https://eumigrationlawblog.eu/wp-content/uploads/2017/10/MEMORANDUM_translation_finalversion.doc.pdf.

instrumental in search and rescue missions, their dual role in intelligence gathering and border control highlights a securitisation framework. This approach frames migration as a security issue, necessitating robust technological interventions to safeguard national borders.

Additionally, academic scholarship aligns with the sceptical view that drones launched during Mare Nostrum did not “carry” the humanitarian objective of saving lives at sea. Sandvik and Lohne argue that the use of humanitarian drones perpetuates “pre-existing “institutional power” associated with war and state surveillance.²³¹ For the authors, the technological precision, while ostensibly beneficial, creates a growing interspace between the operators and those in need, resulting in reduced physical and emotional connection.²³² This disconnection diminishes the empathic bond that is crucial in humanitarian work. As missions are executed from afar, the embodied connectivity essential for understanding and compassion is lost.²³³ To this regard, Marin argues that in Mare Nostrum “border surveillance and the management of irregular migration were characterised as humanitarian actions, and therefore this humanitarian rationale has been used to justify the deployment of warships and other military assets. Alongside this, states are progressively deploying other assets, such as drones, and also satellites, in order to map human movements in the sea”.²³⁴

Moreover, Sandvik and Lohne highlight that humanitarian drones cannot escape their association with military and surveillance activities.²³⁵ Despite their intended use for humanitarian purposes, these drones remain tainted by their origins in violence and disconnection.²³⁶ This perspective suggests that the humanitarian use of drones is inherently linked to the militarized imaginary, complicating their role and effectiveness in genuinely humanitarian contexts.²³⁷

This chapter examined the humanitarian motivations behind the use of drones in Lampedusa between 2013 and 2018, focusing on the Mare Nostrum operation. The SAR approach in Mare Nostrum highlighted the moral duty to assist those in distress at sea, with drones introduced as part of this effort. Despite an increase in rescue operations and praise from organizations like

²³¹ Sandvik Kristin Bergtora, Lohne Kjersti, “The rise of the humanitarian drone: Giving content to an emerging concept”, *Millennium Journal of International Studies* 43(1) (2014): 145–164.

²³² Kristin Bergtora Sandvik, et Maria Gabrielsen Jumbert, “Les drones humanitaires”, *Revue internationale et stratégique*, vol. 98, no. 2, (2015): 139-146.

²³³ Sandvik, and Jumbert, “Les drones humanitaires”, 139-146.

²³⁴ Luisa Marin, Kamila Krajčičková, “Deploying Drones in Policing Southern European Borders”, in *Drones and Unmanned Aerial Systems* ed. Aleš Završnik (Springer International Publishing Switzerland 2016), 101-127.

²³⁵ Sandvik, and Jumbert, “Les drones humanitaires”, 139-146.

²³⁶ Sandvik, and Jumbert, “Les drones humanitaires”, 139-146.

²³⁷ Sandvik, and Jumbert, “Les drones humanitaires”, 139-146.

the IOM, the use of drones warrants critical examination. The Memorandum of Understanding between Italy and Libya authorized border surveillance with drones, raising questions about broader strategic objectives. Academic scholarship suggests that drone deployment may serve strategic purposes rather than purely humanitarian ones. The technological precision of drones can create a disconnect between operators and those in need, potentially undermining empathy in humanitarian work. Additionally, the association with military activities complicates their humanitarian role. To answer the sub question posed in this chapter, Mare Nostrum was primarily driven by humanitarian objectives but also incorporated securitising measures aimed at managing migration flows and enhancing border surveillance.

Chapter 6:

Securitisation and Drone Usage in Lampedusa.

Following the discussion on humanitarian logic in Chapter five, this chapter delves into the securitisation logic driving the use of drones in Lampedusa. It analyses the security concerns and objectives that influenced Italian authorities' decisions and explores how drone deployment reflects broader security strategies and considerations in the context of the refugee crisis. This chapter aims at answering the following sub-question: In what ways did the use of drones reflect broader security strategies and considerations in managing the Lampedusa refugee crisis?

6.1 Triton, A Shift to Securitisation.

Unlike Mare Nostrum, Triton did not employ drones but marked a significant shift in focus from humanitarian rescue to border control. Triton encountered pressures to support Italian authorities in identifying unauthorized migrants and prosecuting human smugglers, while also feeling obligated to conduct migrant rescues due to societal expectations from European civil groups.²³⁸ This transition reflects a broader security strategy aimed at protecting the EU's external borders. Triton, thus, is important as it sets the stage for subsequent missions where coordination and funding came from the EU under Frontex governance (in contrast with the national initiative of Mare Nostrum), and where the securitisation framework became more pronounced.

6.2 Sophia, A Military Operation with a Security Mandate.

As seen in Chapter three, securitisation refers to the process by which state actors transform subjects into matters of "security," enabling extraordinary measures to be employed in addressing perceived threats. In the context of migration, securitisation often frames refugees and migrants as security threats, justifying the use of advanced surveillance and control technologies to monitor and manage their movements.²³⁹ EUNAVFOR Med Sophia, launched in 2015, was a maritime security military operation led by Italy with the mandate to secure borders

²³⁸ Eugenio Cusumano, "Migrant rescue as organized hypocrisy: EU maritime missions offshore Libya between humanitarianism and border control", *Cooperation and Conflict*, 54(1) (2009): 3-24, <https://doi.org/10.1177/0010836718780175>.

²³⁹ Maciej Stepka, "Migration and Security in Academic Literature", in *Identifying Security Logics in the EU Policy Discourse. The "Migration Crisis" and the EU* (Springer, 201), 3.

and combat traffickers' networks. In 2018, the operation moved from sea patrolling to drone surveillance: Italian Air Force Predator drones began surveillance operations highlighting a shift towards using advanced technology for security purposes.²⁴⁰ The growing deployment of drones is a key component of the militarisation of Europe's borders in the Mediterranean. The connection between immigration, national security, and the criminalisation of migration is intensified by the use of quasi-military autonomous technology. This escalation raises concerns that the widespread adoption of autonomous systems like drones could lead to the deployment of weaponised versions, thereby increasing the risks to migrants' lives.²⁴¹ Despite the technology used to address the refugee crisis remaining the same, in Sophia, drone deployment was applied with the different objective of securitising borders. This shift can be analysed through the lens of securitisation theory in several ways.

By focusing on combating traffickers' networks and using advanced surveillance technology, Italian authorities framed migration not just as a humanitarian issue but as a security threat. This framing aligns with Wæver's concept of the "security speech act," where designating an issue as a security concern entails a commitment to address it with a specific degree of seriousness and urgency.

The deployment of drones for surveillance and reconnaissance missions under Sophia allowed Italian authorities to monitor the Mediterranean Sea without the legal obligation to assist vessels in distress, as mandated by International Maritime Law. This action represents an extraordinary measure justified by the securitisation of migration. It bypasses normal political procedures and legal frameworks, reflecting the logic of exception in securitisation theory.

The securitisation of migration through the use of drones under Sophia had significant political and social implications. By elevating the issue of migration to the status of a security concern, Italian authorities justified the use of military-grade technology and surveillance tactics. This move aimed to protect national and regional security while potentially altering public perception and policy priorities regarding migration.

The use of drones in Operation Sophia highlights the intersection between traditional state-centric notions of security and contemporary approaches that emphasize the political processes of securitisation. While traditionally the state is the primary actor in security matters,

²⁴⁰ Iris Blay Puntas, "The use of drones for maritime surveillance and border control", *Working Papers Centre Delàs d'Estudis per la Pau* (2022): 1-23, https://centredelas.org/wp-content/uploads/2022/06/WP_DronesFrontex_ENG.pdf.

²⁴¹ Sara Léonard, Kaunert, C. "The securitisation of migration in the European Union: Frontex and its evolving security practices", *Journal of Ethnic and Migration Studies*, 48, no. 6 (2020): 1417–1429, <https://doi.org/10.1080/1369183X.2020.1851469>

often linking security directly to state sovereignty and military capabilities, contemporary approaches recognize the role of non-state actors and the broader societal implications of security discourse. Operation Sophia exemplifies this intersection by employing military technology (drones) in a manner that reflects both traditional and contemporary security concerns.

This indicates that the relationship Italian authorities had with the technology shifted in response to the changing framing of refugees. Drones, here, are not just used for surveillance but are integral to a broader strategy of militarizing and externalizing border surveillance. They are part of a shift towards using advanced military technologies to pre-emptively manage and control migration, illustrating the process of techno-securitization of borders.²⁴²

Like Triton, also Sophia, has been communicated as a mission placing significant importance on conducting maritime search and rescue missions. This suggests that its public messaging highlights its humanitarian aspect. Despite the emphasis on search and rescue in the communications, this commitment was not consistently reflected in the actions.

Furthermore, Sophia had to manage the varying expectations of EU member states, with some concerned that active search and rescue (SAR) operations might encourage more migration. Consequently, the mission engaged in what Cusumano termed as “organized hypocrisy”: they publicly professed a commitment to humanitarian activities but, in reality, focused predominantly on border control.²⁴³ By promoting a humanitarian narrative while prioritizing border control measures, these missions sought to balance their dual objectives in the Mediterranean context.²⁴⁴

6.3 Themis, the Dual Purpose of Drones.

The dual purpose of Operation Themis—combining search and rescue (SAR) with border surveillance and law enforcement—reflects both humanitarian and securitisation objectives. This dual approach can be analyzed through the theoretical frameworks of humanitarianism and securitisation.

From a humanitarian perspective, the SAR component of Operation Themis aligns with the moral duty to assist those in distress at sea, a central tenet of humanitarian logic. The deployment of Falco EVO drones for SAR missions underscores a commitment to saving lives

²⁴² Luisa Marin, “The deployment of drone technology in border surveillance”, in *Surveillance, Privacy and Security* (Routledge, 2017): 107-122.

²⁴³ Eugenio Cusumano, “Migrant rescue as organized hypocrisy: EU maritime missions offshore Libya between humanitarianism and border control”, *Cooperation and Conflict*, 54(1) (2009): 3-24, <https://doi.org/10.1177/0010836718780175>.

²⁴⁴ Cusumano, “Migrant rescue as organized hypocrisy”, 3-24.

and providing timely assistance to migrants in perilous conditions. This aspect of the operation resonates with the humanitarian narrative that emphasizes the protection and aid of vulnerable populations. The successful interception and rescue of migrants, as seen in the missions on June 20 and June 26, 2019, highlight the practical application of this humanitarian intent. The advanced technology of the Falco EVO drones, equipped with infrared high-definition optical systems and other sophisticated sensors, enhances the capability to detect and respond to migrants in distress, thereby reinforcing the humanitarian objectives of Operation Themis.

However, the use of drones in Operation Themis also reflects broader security strategies and considerations, aligning with the theoretical framework of securitisation. According to the theory of securitisation developed by the Copenhagen School of Critical Security Studies, an issue is framed as a significant threat to entities such as states, societies, or groups through a discourse of emergency, threat, and danger, justifying extraordinary measures. In the context of Themis, the deployment of drones for border surveillance and the fight against drug trafficking, the flow of foreign fighters, and other terrorist threats illustrates the securitisation logic. By framing migration and related activities as security threats, Italian authorities and Frontex justified the use of advanced surveillance technology to pre-emptively manage and control these perceived threats.

The use of drones for ISR missions planned by the *Guardia di Finanza*, with coordination from the Interior Ministry, exemplifies this securitisation approach. The emphasis on combating drug trafficking and terrorism reflects the framing of migration issues as security concerns, necessitating robust technological interventions. The Falco EVO drones, with their capabilities for extended surveillance and data collection, are integral to this strategy of militarizing and externalizing border surveillance. This dual use of drones—serving both humanitarian and securitisation purposes—highlights the complex interplay between saving lives and protecting national and regional security.

Operation Themis underscores the duality inherent in contemporary migration management strategies, where humanitarian objectives coexist and sometimes conflict with securitisation goals. The integration of advanced drone technology in Themis illustrates how these dual objectives are operationalized, balancing the moral imperative to assist those in distress with the strategic need to secure borders and manage migration flows effectively.

Chapter 7:

CONCLUSIONS

This concluding chapter aims to answer the central research question posed in the introduction: "What logic inspired the use of drones by Italian authorities to manage the refugee crisis in Lampedusa between 2013 and 2018?" By synthesizing the findings from the analysis of Operations Mare Nostrum, Triton, Sophia, and Themis, this chapter elucidates the motivations and strategic frameworks that guided the deployment of drones in managing the refugee crisis. Through a comprehensive examination of technological capability, humanitarianism, and securitisation logics, the conclusion provides an understanding of the dual roles that drones played in Italian migration management during this critical period.

The first aspect explored in this thesis is the technological capability of drones and its influence on their deployment. Italy's race to enhance its technological edge in drone technology is evident in the early adoption and deployment of advanced drones like the Falco EVO, produced by Leonardo, an Italian public giant in the security, aerospace, and defence sector. The strategic advantage of these technologies was not just in their superior surveillance and operational capabilities but also in showcasing Italy's innovation and technical prowess. Italy's deployment of drones in Lampedusa was motivated by the perceived efficiency and necessity of advanced technologies for both security and humanitarian challenges. The comprehensive training at the Amendola Centre ensured that Italian operators were well-equipped to utilize drone technology effectively, enabling them to conduct complex missions. This collaboration facilitated the practical application of drone technology in real-world scenarios, reinforcing the reputation of technological rationality and efficiency that shaped Italy's drone deployment decisions. By investing in and developing such capabilities, Italy projected itself as a technologically advanced nation capable of addressing contemporary challenges through innovation.

The humanitarian logic became prominent with the launch of Operation Mare Nostrum, following the tragic Lampedusa disaster in 2013. This operation exemplified how drones were employed to save lives and provide critical assistance, reinforcing the humanitarian objectives of Italy and the broader EU. The use of drones in this context was framed as a necessary tool to address the urgent need for search and rescue missions, emphasizing the protection of human life above all. However, the humanitarian use of drones was not without its critiques. Despite an increase in rescue operations and praise from organizations like the IOM, in a Memorandum of Understanding between Italy and Libya drones were engaged to carry out border surveillance

activities, raising questions about the broader strategic objectives behind their deployment. This duality reflects a complex reality where the Italian Navy's efforts to rescue migrants coexisted with a military logic aimed at protecting European interests against perceived threats from migration.²⁴⁵ Although the humanitarian purposes of Mare Nostrum focused on the protection and rescue of migrants, it is possible that the operation also concealed underlying securitisation objectives. By framing the use of drones within a humanitarian context, Italian authorities may have justified pre-emptive security measures, thus highlighting the complex interplay between humanitarian aid and security imperatives. This example suggests that the deployment of drones could serve dual purposes, underscoring the need for a critical examination of the discourses that influence and are influenced by drone deployment in migration management.

As of 2014, a noticeable shift occurred with the introduction of operations like Triton, Sophia, and later Themis. When Italy sought assistance from the EU, the framing of the refugee crisis transitioned from a humanitarian issue to one of security. Triton's primary focus on border control and law enforcement reflected the securitisation logic, where migration is framed as a security threat. Coordinated and funded by the EU under Frontex governance, Triton emphasized a collective European approach to border management, reinforcing a unified front against perceived migration threats. This operation set the stage for integrating advanced surveillance technologies, including drones, in later operations.

Eunavfor Med Sophia, launched in 2015, directly reflected broader security strategies through the explicit use of drones for surveillance and reconnaissance. The deployment of Italian Air Force Predator drones in 2018 under Sophia marked a significant move towards using advanced technology to enhance border security. Sophia was primarily a military operation aimed at combating traffickers' networks, with drones being utilized to enhance surveillance capabilities. This deployment allowed Italian authorities to monitor the Mediterranean Sea without the legal obligation to assist vessels in distress, aligning with the securitisation logic where extraordinary measures are justified to address perceived threats.

Operation Themis, initiated in 2018, embodied the dual objectives of humanitarian assistance and security strategies. The deployment of Italian Falco EVO drones for both search and rescue (SAR) and border surveillance missions highlighted this dual approach. Themis combined SAR operations with a strengthened focus on law enforcement, using drones to detect and respond to migrants in distress while simultaneously combating drug trafficking and

²⁴⁵ Pierluigi Musarò, "Mare Nostrum: The Visual Politics of a Military-Humanitarian Operation in the Mediterranean Sea", *Media, Culture & Society* 39, no. 1 (2017): 11–28. <https://doi.org/10.1177/0163443716672296>.

terrorism. The Falco EVO drones, equipped with sophisticated sensors and long-duration flight capabilities, were integral to pre-emptively managing and controlling migration flows, illustrating the techno-securitisation of borders.

The deployment of drones by Italian authorities in managing the Lampedusa refugee crisis between 2013 and 2018 was influenced by a combination of technological capability, humanitarian objectives, and securitisation strategies, showing that these logics can coexist, intersect, and overlap. Understanding the use of drones within specific, localized contexts is crucial, but it is equally important to maintain flexibility in these analytical frames. By transposing these frames from one context to another, we can identify intersections and departures, leading to a more comprehensive and generative understanding of how drone technology is used.²⁴⁶ Drones cannot be considered impartial or unbiased; their impact is determined by the intentions and objectives of the people using them and the social and political environment where they are utilized.

In conclusion, the deployment of drones in managing the refugee crisis is not merely a tactical decision but a reflection of Italy's broader strategic priorities and investments in technology. This paradigm shift towards embracing innovative solutions highlights Italy's proactive approach in leveraging advanced technologies to meet both national and international objectives. The dual focus on humanitarian assistance and security aligns with the broader "regime of truth" discussed by Csernaton, where technological solutions are perceived as essential for addressing modern challenges. While these advancements may contribute to more effective crisis management, they also reflect Italy's commitment to maintaining a competitive edge in the evolving landscape of high-tech military and civilian applications.

Future research should explore how privatisation reinforces securitisation. As private companies increasingly develop and deploy surveillance technologies, their commercial interests often align with state security agendas. This partnership between private entities and state actors can further embed securitisation into migration management practices. Research in this area should focus on the economic incentives that drive these partnerships and how they influence the securitisation discourse and the implementation of security measures.

²⁴⁶ Fish, A., & Richardson, M. (2022). Drone Power: Conservation, Humanitarianism, Policing and War. *Theory, Culture & Society*, 39(3), 3-26. <https://doi.org/10.1177/02632764211022828>

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