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Transferring UAVs to Russia: Navigating Strategic Implications for Iran

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Abstract

For a country that has been living under a variety of international sanctions that have crippled the national economy, Iran continues to develop its indigenous armaments in the field of unmanned aerial vehicles (UAVs) or drones. Over the years, the Iranian military has successfully achieved self-sufficiency in drone production, a major driving factor that enables Tehran to supply drones to its proxies in the Middle East and export these weapons beyond the region. Recent concern over Iran's drone proliferation was specifically turned into the spotlight due to them supplying drones to Russian forces to attack Ukraine. Against this backdrop, this thesis aims to understand the strategic interests of Iran in supplying UAVs to Russia in the war against Ukraine. In order to conduct the analysis, primary data was collected from statements and press releases from government officials and international institutions. Meanwhile, secondary data was derived from academic literature, reports from think tanks, and news articles. Through the framework of the security dilemma and conventional deterrence applied in this research, it was found that the partnership with Russia proved to bring several strategic advantages for Iran. As a country that considers military technology to be capable of providing national security, the findings of this thesis revealed that Iran had acquired military procurements from Russia to modernise its air fleet in exchange for its drones. Furthermore, the findings also showed that UAVs serve as part of Iran's deterrent strategy in three main components. First, the visibility of the Iranian military force in increasing its power projection beyond the region. Second, the willingness to use force with political deniability which enables Iran to deny direct involvement and responsibility for its actions. Lastly, the rationality of the use of force caters for financial streams towards Iran and increases its bargaining power as a growing drone exporter.

Keywords: Iran, drone proliferation, Russia-Ukraine war, security dilemma, conventional deterrence.

Table of Contents

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Lastly, this Master's has taught and exposed me a lot to issues revolving around non-proliferation and disarmament. Over the years, the international community continues to see the evolving challenges for the non-proliferation regime due to threats posed by technological advancement which shapes the conduct of modern warfare and conflict. Critical technologies such as artificial intelligence and lethal autonomous weapons applied in the military sphere could manifest in new domains and new applications, resulting in new military capabilities that might destabilise international peace and security. To this end, I hope this research will contribute to addressing the challenges of emerging technologies in military applications to prevent further arms proliferation.

List of Abbreviations

EU	European Union
E3	France, Germany, and the UK
FCDO	Foreign, Commonwealth and Development Office
HALE	High-altitude long-endurance
IAEA	International Atomic Energy Agency
ICBM	Intercontinental Ballistic Missiles
IISS	International Institute for Strategic Studies
IRGC	Islamic Revolutionary Guard Corps
IRNA	Islamic Republic News Agency
ISNA	Iranian Students News Agency
ISR	Intelligence, Surveillance, and Reconnaissance
JCPOA	Joint Plan of Comprehensive Action
MALE	Medium-altitude long-endurance
MTCR	Missile Technology Control Regime
NATO	North Atlantic Treaty Organization
P5+1	US, China, France, Russia, the UK, and Germany
RUSI	Royal United Services Institute
SCO	Shanghai Cooperation Organization
SIPRI	Stockholm International Peace and Research Institute
UAE	United Arab Emirates
UAV	Unmanned Aerial Vehicles
UK	United Kingdom
UN	United Nations
UNSCR	United Nations Security Council Resolution
US	United States

Chapter 1: Introduction

"The belief that an increase in military strength always leads to an increase in security is often linked to the belief that the only route to security is through military strength."

(Robert Jarvis, 1978)

For many years, the international community have seen the military use of unmanned aerial vehicles (UAVs) against the backdrop of many conflicts across the world. A broader concern on the use of UAVs has increased rapidly over the years, with recent Iranian drone attacks towards Israel in April 2024, however, the main highlight is its extensive use and significant role in Russia's aggression towards Ukraine. The start of the invasion in February 2022 marked the increased strategic alignment and expanded cooperation between Moscow and Tehran. As a country with a diverse array of UAVs in the Middle East with production capability, Iran's continuous support to Russia by supplying UAVs in the war against Ukraine has heightened the conflict further and gained worldwide attention. For a country that has already faced a variety of international sanctions, Iran's involvement in Ukraine should be seen with a wider perspective of its strategic importance for Tehran as the move clearly indicates that its cooperation with Russia outweighs the possible risks entailed.

1.1 Background

Since the beginning of Russia's invasion to Ukraine in February 2022, Moscow has doubled down its military cooperation with Iran through arms transfer of UAVs or drones. Fueling the war even further, Tehran has reportedly supplied Moscow with hundreds of drones of various types. The munition has enabled Russia to conduct numerous strikes on Ukrainian cities and civilian infrastructure.[1] Five months into the war, Putin conducted the first foreign visit since the start of the war to Tehran in July 2022. During the meeting with Putin, the Iranian Supreme Leader, Ayatollah Ali Khamenei called for increased long-term cooperation between Iran and Russia and showed his support for the war in Ukraine by stating that the West "would have caused a war on its own initiative" had

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[1] John Hardie, "Iran Is Now at War With Ukraine," *Foreign Policy*, October 26, 2022, https://foreignpolicy.com/2022/10/26/iran-ukraine-russia-war-drones-missiles-military-advisors-middle-east-nuclear/.

Putin not initiated the conflict.[2] Not long after this meeting, the first use of Iranian drones was reported by Ukraine's Defence Ministry on 13 September 2022 where Ukrainian military forces shot down Iranian-made drones in the northeastern region of Kharkiv.[3] Although Iran has proliferated variants of these UAVs to its proxies in the Middle East, this is the first time the regime has brought them to Eastern Europe. Between September 2022 and December 2023, Russia launched approximately 3,700 Shahed-131 and Shahed-136 drones of Iranian origin, averaging between 200 to 250 drones per month.[4]

Following the trend of military technology in the world, UAVs became a central military tool for Iranian asymmetric warfare in the aftermath of the Iran-Iraq War in the 1980s. Key features of the Iranian UAVs program include high precision and accuracy, capability for crisis management operations, intelligence warfare, counter-accessibility challenges and their potential use to complement the country's ballistic missile programme.[5] Apart from these technological advancements, UAVs are known to be low-cost despite the advantage they can offer, which would be beneficial for Russia as Putin needs a large number of drones to exhaust Ukraine's military air defences.

As a country with a significant drone production capability, not only did Iran manage to supply Russia with a large quantity, but also Tehran had struck a deal to provide technical assistance to expand Moscow's drone program. With support from Iran, Russia's drone factory in the Tatarstan region is estimated to produce its own 6,000 drones by summer 2025.[6] All these arms transfers and Iran's production capability are considered to be destabilising and threatening international security, especially by the Western powers, mostly the United States (US) and the European Union (EU), since Iranian drone proliferation has extended beyond the Middle East region and posed a direct threat to the European continent. Due to this, Iranian drone activities such as its production and export are linked with intractable security dilemmas fueling the arms race in the Middle East and are increasingly seen to threaten international peace and stability.

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[2] Guy Faulconbridge and Parisa Hafezi, "Putin forges ties with Iran's supreme leader in Tehran talks," *Reuters*, July 20, 2022, https://www.reuters.com/world/putin-visits-iran-first-trip-outside-former-ussr-since-ukraine-war-2022-07-18/.

[3] "Ukraine claims to have shot down Iranian drone used by Russia," Middle East Eye, September 13, 2022, https://www.middleeasteye.net/news/ukraine-iranian-russia-drone-shot-down.

[4] Can Kasapoglu, *How the War in Ukraine Shapes Iran's Strategic Gains and Ambitions* (Washington: Hudson Institute, 2024), 2.

[5] Mohammad Eslami, "Iran's Drone Supply to Russia and Changing Dynamics of the Ukraine War," *Journal for Peace and Nuclear Disarmament* 5, no. 2 (November 2022): 511.

[6] Dalton Bennett and Mary Ilyushina, "Inside the Russian effort to build 6,000 attack drones with Iran's help," *The Washington Post*, August 17, 2023, https://www.washingtonpost.com/investigations/2023/08/17/russia-iran-drone-shahed-alabuga/.

For this reason, Iranian UAVs have long been a matter of concern for international actors, even since the implementation of the Joint Plan of Action (JCPOA), the nuclear deal between Iran and the P5+1 (the US, China, France, Russia, the UK, and Germany) signed in 2015 to restrict Iran's nuclear programme in exchange for sanctions relief.[7] One of the most highly criticised points regarding the Iranian nuclear deal was that the JCPOA failed to address the limitation on Iranian missiles and UAVs. Meanwhile, the EU arms and missile embargoes on Iran had supposedly been lifted off after the United Nations Security Council Resolution (UNSCR) 2231 expiration on Transition Day by 18 October 2023, meaning that there would be no barrier for Iran to transfer UAVs to Russia.

However, following the expiration of Iranian arms embargoes on JCPOA Transition Day, the EU maintained its restrictive measures on Iran.[8] Along with this, the EU strongly condemned Iran's involvement in the aggression towards Ukraine and imposed sanctions against 19 Iranian individuals and 10 entities between October 2022 and December 2023.[9]

The leading European powers, namely the United Kingdom (UK), France, and Germany (referred to as the E3), condemned Iran's UAV proliferation and retained their measures on the arms and missile embargoes with a plan to turn it into a domestic law.[10] The EU Commission President, Ursula von der Leyen, further emphasised the immediate need to counter Iranian drone threat during the Manama Dialogue Conference in November 2022 by suggesting that "we must also focus on other forms of weapons proliferation, from drones to ballistic missiles. It is a security risk, not just for the Middle East but for us all."[11]

Joining the EU, NATO had repeatedly highly criticised the use of Iran's drone in Ukraine and the Allies continued to bolster Ukraine's air defenses by agreeing to purchase

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[7] "Nuclear Agreement – JCPOA," European Union External Action, August 18, 2021, https://www.eeas.europa.eu/eeas/nuclear-agreement-%E2%80%93-jcpoa_en.

[8] "Iran: Council maintains restrictive measures under the non-proliferation sanctions regime after the JCPoA Transition Day," Council of the EU, October 17, 2023, https://www.consilium.europa.eu/en/press/press-releases/2023/10/17/iran-council-maintains-restrictive-measures-under-the-non-proliferation-sanctions-regime-after-the-jcpoa-transition-day/.

[9] "Iran: EU restrictive measures," Council of the EU, February 14, 2024, https://www.consilium.europa.eu/en/policies/sanctions/iran/#drones.

[10] "UK to bring UN sanctions on Iran into UK law," FCDO, September 14, 2023, https://www.gov.uk/government/news/uk-to-bring-un-sanctions-on-iran-into-uk-law#:~:text=The%20UK%2C%20France%20and%20Germany,sanctions%20beyond%20the%20October%20deadline.&text=The%20UK%20has%20today%20committed,in%20October%20into%20UK%20law.

[11] "Keynote address by President von der Leyen at the International Institute for Strategic Studies Manama Dialogue," European Commission, November 18, 2022, https://ec.europa.eu/commission/presscorner/detail/en/speech_22_7013.

USD 10 billion for ammunition and USD 5,5 billion for 1,000 Patriot air defense missiles from the US. The growing challenge from Tehran also drives the Allies to expand its cooperation with partners from the Indo-Pacific region including Australia, Japan, New Zealand, and South Korea.[12] From this point, it can be seen that the European states consider Iranian UAV proliferation as a direct threat towards the European continent.

1.2 Aims and Objectives

In conjunction with the constant pressure through international sanctions and the diminished hope of reviving the Iranian nuclear deal that collapsed after the US withdrawal in 2018, Iran's support to Russia might be seen as reckless as it would put Tehran in a more difficult position with increased sanctions by the Western powers. Interestingly, this does not refrain Iran from supporting Russia in the first place despite the possible negative consequences that might entail. In this case, the cooperation with Moscow would explain the underlying benefits for Iran in terms of its strategic importance in conducting this drone transfer. Therefore, the objective of this thesis is to understand the strategic interests of Iran in supplying UAVs to Russia in the war against Ukraine. In order to understand Iran's motives, this thesis will explore the importance of UAVs for Iranian asymmetric warfare, and this will be done by reaching the following aims:

→ Understanding the correlation between Iran's security and military technology advancement with the concept of security dilemma

→ Understanding how UAVs are seen as a military tool for conventional deterrence of Iranian military strategy

1.3 Research Question

Based on the explanation above, the main research question is as follows: *What are the strategic implications for Iran by conducting UAVs transfers to Russia in the war against Ukraine?*

In this case, strategic implications for Iran would delve mainly into its political, financial, and military gains from the partnership with Russia. The research question will be approached through an analysis of primary and secondary data from a variety of

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[12] "Joint press conference: by NATO Secretary General Jens Stoltenberg and the National Security Advisor of the United States, Jake Sullivan," North Atlantic Treaty Organization, February 8, 2024, https://www.nato.int/cps/en/natohq/opinions_222506.htm.

literature of academic and non-academic sources. The research analysis will be discussed with the framework of security dilemma and conventional deterrence. The theoretical framework and the research methodology used in this thesis will be thoroughly explained in Chapter 3 and Chapter 4 respectively.

1.4 Thesis Outline

The outline of the thesis will be divided into six chapters. The first chapter will introduce the contextual background of the issue, the aims and objectives, the research problem, and the research outline. The second chapter will explore a variety of academic literature addressing the importance of UAVs for Iran. The third chapter will lay out the theoretical framework which consists of explaining the application of realism, security dilemma and conventional deterrence to the topic. The fourth chapter will present the methodology that will be used to collect the primary and secondary sources and analyse the research findings. The fifth chapter will present research findings by identifying Iranian UAVs proliferation including the rise of the Iranian UAV programme, an overview of their current arsenal, the diverse use of Iranian UAVs, and its role in the war in Ukraine. The sixth chapter will discuss the strategic implications for Iran including military cooperation between Iran and Russia and UAVs as a tool for conventional deterrence. Lastly, the thesis will conclude with a summary of the research findings and propose some recommendations for future research that could be further explored.

Chapter 2: Literature Review

The main purpose of this thesis is to understand the strategic implications for Iran in relation to its supply of UAVs to Russia in the war against Ukraine despite the backdrop of years of political isolation, economic sanctions, and export restrictions imposed on Tehran. It is thus necessary to examine literature that deals with UAVs proliferation and more specifically with the question of the importance of UAVs for the Iranian asymmetric warfare approach.

The most heated debate revolving around UAV proliferation among scholars and researchers is the question of whether drone proliferation has revolutionised war. Many believe that the evolving role of UAVs from being tools of reconnaissance to deadly weapons has the capability to revolutionise warfare.[13] As Fuhrmann and Horowitz put it, "drones have become emblematic of twenty-first century military technologies."[14] They argue that the strategic implications of drones are alarming in warfare even though UAVs are less destructive than military technology such as nuclear weapons. In their opinion, drone proliferation has the ability to influence world politics by reducing barriers to the use of military force, enhancing surveillance of contested territories, and helping countries target adversaries.[15]

Another factor worth pointing out to support this debate is the combat effectiveness of drones in a war. Kumar asserted that the use of drones offers more accuracy for attacks in comparison to bombings carried by manned fighter jets, thus minimising the collateral damage.[16] He called out drones as "the next revolution in military affairs,"[17] as this technology led to the development of military robotics and automated systems. With the ability to eliminate the risk of losing a pilot when undertaking reconnaissance and combat missions, Kumar believes that UAVs are likely to become part of military operations encompassing naval, land and air theatres in the future.[18] Apart from this, by allowing the user to strike the target from a distance and

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[13] Amy Zegart, "Cheap fights, credible threats: The future of armed drones and coercion," *Journal of Strategic Studies* 43, no. 1 (2020): 22–23.

[14] Matthew Fuhrmann and Michael C. Horowitz, "Droning On: Explaining the Proliferation of Unmanned Aerial Vehicles," *International Organization* 71, no. 2 (Spring 2017): 397.

[15] Fuhrmann and Horowitz, "Droning On," 398.

[16] Ankit Kumar, "Drone Proliferation and Security Threats," *Indian Journal of Asian Affairs* 33, no. 1/2 (June-December 2020): 57.

[17] Kumar, "Drone Proliferation," 43.

[18] Kumar, "Drone Proliferation," 54.

avoid the risks associated with the deployment of human combatants on the battlefield, drones are able to lower the threshold for using lethal force and make it easier to escape accountability for the use of force decisions.[19]

According to the explanation above, drones are considered revolutionary because of three direct effects that they exert on military conflict and world politics. First, drones are more effective at avoiding or limiting detection by modern radars compared with traditional military aircraft due to their small size, range, and accuracy. This would enable drones to counter enemy air defenses systems and favours offensive military operations. Second, the affordable cost combined with the technological advancement lowers the entry barrier for any actors to acquire these advanced military capabilities. Lastly, the autopilot technology and the long-range ability would eliminate close combat from the battlefield, thereby lessening the need to deploy ground troops.[20]

While the impact of drones to accelerate offensive measures during the war is visible, drone revolution sceptics point out that there are several reasons to question that view. Calcara et al claim that drones are unlikely to shift the offense-defense balance toward the offense because they are vulnerable to electronic warfare and air defense systems. Even a stealth drone remains insufficient against advanced air defense systems, and they need to be accompanied by a combination of cyberattacks, electronic warfare, and suppression assets to lower the risk of interception.[21] Drones are also unlikely to cancel existing military asymmetries because their operation requires support from expensive and complex military assets and highly trained personnel. The sceptics stress that only states with a high economy and powerful military can use drones effectively in military operations, mainly due to command, control, and communication infrastructure.[22]

Kreps and Zenko view that only states with the capacity to have mastered other complex military technologies, such as nuclear weapons and satellite communications, could operate advanced drones.[23] They also ruled out that UAVs "will not transform the international system as fundamentally as did the proliferation of nuclear weapons and

[19] Marcus Schulzke, "Drone Proliferation and the Challenge of Regulating Dual-Use Technologies," *International Studies Review* 21, no. 3 (September 2019): 498.

[20] Antonio Calcara et al., "Why Drones Have Not Revolutionized War: The Enduring Hider-Finder Competition in Air Warfare," *International Security* 46, no. 4 (Spring 2022): 131.

[21] Calcara et al., "Why Drones Have Not Revolutionized War," 145.

[22] Calcara et al., "Why Drones Have Not Revolutionized War," 136.

[23] Sarah Kreps and Micah Zenko, "The Next Drone Wars: Preparing for Proliferation," Foreign Affairs 93, no. 2 (March/April 2014): 73.

ballistic missiles,"[24] despite the threat they posed could be destabilising both regional and international security. The last factor is that drones are unlikely to eliminate close combat and erase the importance of skills and proficiency in modern warfare because of opportunities to conceal ground capabilities, especially in war waged in urban settings.[25]

Contrary to the main narrative offered by the drone revolution sceptics, Kunertova explains that Ukraine has seen the use of small and low-tech drones of commercial origins to be the changing dynamics of the battlefield in Ukraine. The war shows that small drones are cheap and easy to operate, maintain, and replace. Ultimately, the critical factor in acquiring and deploying drones in Ukraine does not concern the high sophistication of the weapons but its scalability. Therefore, the war in Ukraine is defying the image that precision weapons can only be owned and operated by countries with a high economy and powerful military.[26] She also pointed out that sceptics failed to see the shifting logic behind the use of drones from enablers of remote warfare in operating air surveillance and remote killing to providing a cheaper way to deliver explosives and improve artillery precision. The battlefield in Ukraine demonstrates that the offensive advantage of drones can deliver tactical victories and showcases the diversity of systems capable for military use.[27]

Following the distinction of the debate on the revolutionary of UAV proliferation in warfare, two main points are worth discussing: First, the changing character of modern warfare requires convincing the adversary with the threat of having the capacity to ensure that the war can last as long as the objective has been achieved. This means that conflicts last longer and are less decisive, the state would have to be able to demonstrate the ability to sustain a combat. This factor paves the way for drones to be an effective weapon due to their affordability while also offering the ability to stay throughout the course of the war. In this case, quantity matters. Therefore, it is crucial to ensure that the human, financial, and political costs of operating drones are low, in order to be able to produce drones in greater quantities. Zegart reaffirmed this by stating that "the more drones a state can produce, the more sustainable its drone operations, and the more credible its threat to stay the course."[28] This goes hand in hand with Iran's military doctrine since the 1979

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[24] Kreps and Zenko, "The Next Drone Wars," 68.
[25] Calcara et al., "Why Drones Have Not Revolutionized War," 133.
[26] Dominika Kunertova, "Drones have boots: Learning from Russia's war in Ukraine," *Contemporary Security Policy* 44, no. 4 (October 2023): 583–584.
[27] Kunertova, "Drones have boots: Learning from Russia's war in Ukraine," 586.
[28] Zegart, "Cheap fights, credible threats: The future of armed drones and coercion," 23.

Islamic revolution, whereby Iran had the tendency to develop low-risk, relatively low-cost military tools, including missiles and UAVs, which also favours the ability to tackle threats at a distance without putting Iranian lives at risk.[29]

Second, the effectiveness of drones in combat also explains the demand and supply factor for the drone exporter, which plays a bigger role in the spread of military technologies. In this case, Iran takes into consideration the demand of Russia and its proxies in the Middle East (Hezbollah in Lebanon, Houthis in Yemen, Hamas in Gaza, and the Iraqi militias) to supply them with UAVs to sustain their combat capacity and capabilities. The drone export to non-state actors conducted by Iran proves to sceptics that a wealthy economy and advanced military could not be defined as the necessity for a state to operate drones, even Tehran's determination to become a UAV supplier does not differentiate between state and non-state actors. Not to mention as a country living under severe economic sanctions and international isolation, Iran manages not only to acquire its own UAV fleet but also its production capacity, which enables it to become a drone exporter.

Therefore, Iran's ability to supply a powerful country such as Russia with its locally produced UAVs reflects Tehran's power projection in the broader asymmetric warfare. Another point worth mentioning based on the explanation above is that previous research had largely addressed the impact of UAVs used in a conflict, however, there is not enough research on the explanation of the importance of UAVs for Iran's strategic interest and the underlying motives behind its involvement in the war in Ukraine. Nevertheless, this section concludes that the previous research on the discussion about the revolutionary of UAVs proliferation in warfare, including the combat-effectiveness and the affordability of drones which extend the operation of drones beyond state actors could help understand the importance of drones for the Iranian military approach.

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[29] Ariane Tabatabai, "Containment and Strike: Iran's Drone Program," *Terrorism Monitor* 15, no. 17 (September 2017): 8.

Chapter 3: Theoretical Framework

This section will delve into the theoretical framework of realism, security dilemma and conventional deterrence as well as their link to arms proliferation. The theoretical framework of this thesis aims to understand the research problem by viewing it from the perspective of realism, security dilemma, and conventional deterrence, which this section will lay out. This section is divided into three parts. First, it introduces the basic theory of realism and its connection to how states achieve security in an anarchic international system. Second, it explains the security dilemma and its relation to the arms race. Third, it introduces conventional deterrence and links it to Iran's strategic interest.

3.1 Realism

In order to understand Iran's UAV proliferation and the motive behind Iran's drone transfer to Russia, it is imperative to rely on a theoretical approach that provides an accurate explanation of this political phenomenon. According to the two most influential realist works of the twentieth century, Hans Morgenthau (1948) and Kenneth Waltz (1979), realist theories share three key assumptions regarding the international political system. First, the international system is characterised by anarchy, which is mainly driven by the non-existence of centralised and sovereign political authority that commands a monopoly on the legitimate use of force. Second, the primary actors of international politics are states, and they can be regarded as purposive, unitary actors. Third, states are usually driven by their own national interest and generally seek to survive as independent political entities. Thus, it is common for states to use strategies that would maximise their interests and objectives.[30]

Although there are many realist theories dealing with different aspects of power, one of them stands out above the others, which lays out the explanation for why states pursue power in Morgenthau's *Politics Among Nations*.[31] In his work, Morgenthau lays out six fundamental principles of political realism. First, political realism believes that politics is governed by objective law that could explain the rational motive of the political

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[30] Jonathan Monten, "Thucydides and Modern Realism," *International Studies Quarterly* 50, no. 1 (March 2006): 8.

[31] John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: W. W. Norton & Company, 2001), 18.

acts performed by states and the consequences of these acts.[32] Second, the landscape of international politics is driven by the interest to seek and gain power.[33] Third, the key concept of interest defined as power is an objective point but it may change according to the environment surrounding the state. In other words, the means to achieve power is determined by the political and cultural environment in which foreign policy operates to maintain and alter the balance of power.[34] Fourth, political realism is aware that the moral significance of political action conducted by states is usually made on the principle of national survival.[35] Fifth, political realism does not identify the moral principles of other states with the moral principles that govern the world. In this case, self-help is a necessity in an anarchic international system as the only moral principle that the state holds is the survival of its own.[36] Lastly, political realism is based upon the pluralistic conception of human nature.[37]

Morgenthau asserted that one of the most important instruments to gain power on the international scene is the policy of prestige through the display of military force.[38] Military strength is considered to be the obvious measure of a nation's power as military demonstration serves to impress others. The most drastic form of the military type of this policy of prestige is partial or total mobilisation. For instance, the deployment of a state's military arms or army forces to allies could be interpreted as a symbolic representative of the power of the country. This military strength also aimed to showcase the state's objective in support of one's political ends. Morgenthau implies that this "reputation for power is employed both as a deterrent to and as a preparation for war."[39]

While Morgenthau considers that states behave in the international system due to the lust for power, Waltz argues that it is the anarchy of the international system which drives states to project hostile behaviour. As Waltz puts it, "Among men as among states, anarchy, or the absence of government, is associated with the occurrence of violence."[40] Waltz claims that great powers are essentially aggressive not because they seek power but because of their need to survive, otherwise, they have to face more militarily vigorous

[32] Hans J. Morgenthau and Kenneth W. Thompson, *Politics Among Nations: The Struggle for Power and Peace* (Beijing: Peking University Press, 1985), 4–5.
[33] Morgenthau and Thompson, *Politics Among Nations*, 5–10.
[34] Morgenthau and Thompson, *Politics Among Nations*, 10–12.
[35] Morgenthau and Thompson, *Politics Among Nations*, 12.
[36] Morgenthau and Thompson, *Politics Among Nations,* 13.
[37] Morgenthau and Thompson, *Politics Among Nations*, 16.
[38] Morgenthau and Thompson, *Politics Among Nations*, 92.
[39] Morgenthau and Thompson, *Politics Among Nations*, 93.
[40] Kenneth N. Waltz, *Theory of International Politics* (Ontario: Addison-Wesley Publishing Company, 1979), 103.

neighbours. In the situation of an anarchic international environment, states need to guard their own defense and have a monopoly on the legitimate use of force in order to prevent and counter possible attacks from other states.[41] From Waltz's perspective, it is worth noting that states are not merely engaged in hostile behaviour for the lust of power and to dominate others, but the ultimate goal is the survival of their own as states seek security.[42] However, both Morgenthau and Waltz managed to identify why states pursue power, but the question of how much power states want differs and eventually leads to the deviation of two sub-theories within the broader framework of realism.

In the framework of political realism, there are two sub-theories in defining how much power states want, Defensive Realism and Offensive Realism. Both share the core tenets of realism, which is an anarchic international system where states prioritise survival and national interest, but diverge on how states achieve security in this environment. Offensive realism was introduced by John J. Mearsheimer, who believes that great powers are concerned with how to survive in a world where there is no assurance of protection from other states and they realise that the only key to their survival is power. For the offensive realist, the status quo powers are rarely found in world politics because the international system provides opportunities for states to gain incentives in the form of power at the expense of their adversary and to take power advantage of this situation when the benefits outweigh the costs. Therefore, the ultimate goal of offensive realism is for states to gain as much power as they can until they become the most powerful states or global hegemony.[43]

Unlike offensive realism, defensive realism offers a different perspective in terms of how much power states seek. Defensive realism, frequently referred to as structural realism, was founded and advocated by Waltz, who argues that the international system provides states with little incentive in their pursuit of power, instead, it pushes them to maintain the existing balance of power. For defensive realists, the main goal of states is to preserve power rather than maximise it.[44] Waltz stresses that too much power for states will likely cause other states to join forces against them, thereby leaving them worse off than they would have been had they refrained from seeking additional power. As Waltz puts it, "Fear of such unwanted consequences stimulates states to behave in ways that

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[41] Waltz, *Theory of International Politics*, 103–104.
[42] Waltz, *Theory of International Politics,* 105.
[43] Mearsheimer, *The Tragedy of Great Power Politics*, 21.
[44] Waltz, *Theory of International Politics*, 127.

tend toward the creation of balances of power."[45] Against this backdrop, defensive realists believe that high militarisation could negatively affect the security of states but at the same time, the gradual proliferation of advanced weapons may stabilise a region and the world, which leads to greater security.[46] In this case, Shameer asserts that security is not a zero-sum game, meaning that one way to secure a state is to ensure the security of neighbours and adversaries by making them believe that there is no intention to strike. For this to work, security in the international system may not be achieved by increasing the power of a state as offensive realist purpose, but rather by decreasing it.[47]

Although realist theories share core assumptions over power and security, there are two divisions within contemporary realism. Neorealism and neoclassical realism differ based on the phenomena that need to be explained. Neorealism aims to explain international outcomes as a result of the interaction of two or more actors in the international system. Examples of this interaction could be seen in the form of international cooperation, arms race, and aggregate alignment patterns.[48] Even though interstate cooperation is viable, individual states ultimately are responsible for their own survival because there is no present reliable mechanism to protect them. Therefore, the pursuit of national power is inevitable and a prominent national priority.[49]

Meanwhile, neoclassical realism explains the behaviour or strategies of individual states in the international arena. This would include national strategies, military doctrines, foreign policy, and alliance preferences.[50] The importance of justifying the reason behind the state's actions comes from the means beyond national survival, but also how strategic and foreign policy choices may produce structural transformation for their security.[51] According to Payne, realists see arms control agreements in a cynical view, whereby they are "most feasible when they are least meaningful."[52] In other words, states will not forego any weapons capabilities that they consider essential to their security.

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[45] Waltz, *Theory of International Politics*, 119.
[46] Shameer M, "Power Maximisation And State Security," *World Affairs: The Journal of International Issues* 21, no. 2 (Summer 2017): 11.
[47] Shameer M, "Power Maximisation And State Security," 17–19.
[48] Jeffrey W. Taliaferro, "Security Seeking under Anarchy: Defensive Realism Revisited," *International Security* 25, no. 3 (Winter 2000-2001): 132–133.
[49] Keith B. Payne, "Realism, Idealism, Deterrence, and Disarmament," *Strategic Studies Quarterly* 13, no. 3 (Fall 2019): 9.
[50] Taliaferro, "Security Seeking under Anarchy: Defensive Realism Revisited," 133–134.
[51] Keith Smith, "Recollecting a lost dialogue: Structural Realism meets neoclassical realism," *International Relations* 33, no. 3 (2019): 496–498.
[52] Payne, "Realism, Idealism, Deterrence, and Disarmament," 18.

Despite the difference in the question of how much power states seek to gain, both offensive realism and defensive realism share the same core assumption under the framework of political realism. States want power on the basis of fear by existing in a world where great powers have the capability to attack each other and might have the motive to do so, causing any states that rely on survival must be at least suspicious of other states and reluctant to trust them. From this basic understanding of political realism, it will be easier to understand the reason behind Iran's drone proliferation activities as part of the policy of prestige to show Iran's military strength. As Iran ultimately demonstrates both defense as well as offensive behaviours, this thesis will use the basic logic of realism in the framework of the security dilemma and conventional deterrence in discussion to be able to understand in-depth on Iran's motive behind its drone transfer to Russia in Ukraine.

3.2 Security Dilemma

For a long time, the concept of security dilemma has been deployed to understand the challenges of the most pressing international political issues, from the Cold War to the growing arms race in the 21st century. John Herz first coined the term security dilemma, which he defines as a situation where individuals or groups are concerned regarding their security from being attacked, subjected, targeted, and annihilated by other groups and individuals. In reaction to this, one party will strive to attain and equip themselves better from any potential threats and attacks, which eventually causes the other party to feel insecure and compel them to prepare for the worst. In a world of competing units, the creation of power competition and the vicious circle of security and power is inevitable.[53]

Robert Jarvis reinforced its definition by describing security dilemma as "many of the means by which a state tries to increase its security decrease the security of others."[54] This condition is mostly driven by subjective security demands, whereby decision-makers act in terms of the vulnerability they feel. There are two aspects to explain their subjective security requirements. First, the high value of security that cannot be negotiated. The more a state values their security above all else, the more they are likely to react against even minimal threats and procure more advanced arms both in

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[53] John H. Herz, "Idealist Internationalism and the Security Dilemma," *World Politics* 2, no. 2 (January 1950): 157.

[54] Robert Jarvis, "Cooperation under the Security Dilemma," *World Politics* 30, no. 2 (January 1978): 168.

quality and quantity. To put it more precisely, a state would be willing to pay a high price in order to reach the increments of security that they desire. The second aspect is the perception of threat. A state that is inclined to see a specific other state as an adversary or a menace will react more strongly and quickly than a state that sees its environment as harmless. Thereby, when a state believes that the other is not likely to go against them as a potential adversary and share a common interest, then there is a greater chance that the state will welcome an increase in the other's power. However, high-security requirements make it very difficult to find a common interest between states and eventually would lead to spirals of arms race and hostility behaviours.[55]

A state's tendency to perceive threat is usually based on how many adversaries it must be prepared to fight. The only thing that could ease the fear of being targeted is the presence of a functioning collective security system, even in the face of another's arms build-up. This is mainly driven due to the fact that no state possesses the capability to protect itself against an attack by several other states. In this case, a state needs trusted allies in order to be able to face several adversaries and it would meet the necessary conditions for security requirements to be compatible. Mutual cooperation will then result in direct gains and the satisfaction of seeing the other prosper. Jarvis' concept of the need for cooperation also follows the logic of deterrence as "the actor must then try to convince his adversary that he is going to stand firm (defect) and that the only way the other can avoid disaster is to back down (cooperate)."[56] However, mutual cooperation and the shared cost of defection can also encourage exploitation. This means that a satisfied state can be tempted to expand in the hope of gaining major values, but this way the state can ensure the chance of mutually beneficial cooperation. By giving the satisfied state the value that it seeks, it will provide reassurance to the other state that the satisfied state will cooperate accordingly.

One of the most influential aspects that could determine whether a situation of a state is in the ease or difficulty to achieve a high degree of security is military technology. The higher the vulnerability of weapons, the higher the need for them to be deployed before being attacked. The other major variable that affects how strongly a security dilemma operates is whether weapons and policies that protect the state also provide the capability to attack. If they do not have this capability, the basic concept of security

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[55] Jarvis, "Cooperation under the Security Dilemma," 174–175.
[56] Jarvis, "Cooperation under the Security Dilemma," 177–178.

dilemma no longer applies.[57] In other words, the concept of security dilemma recognises the presence of offensive weapons. Through this understanding, there is a link between security dilemma and deterrence as the concept of deterrence refers to offensive weapons being those that are able to provide defense.

According to Shiping Tang, security dilemma is defined as a situation where two states are defensive realist states under the condition of an anarchy, due to this, both states are always on guard of each other's present or future intentions. As a result, each tends to fear that the other may become an adversary and therefore both seek to accumulate more power as they believe that power is a means toward security.[58] Defined as such, several aspects of the security dilemma include: (1) under the condition where two states are unable to be sure of each other's present or future intentions, there is a tendency of fear that the other will become a predator; (2) the nature of security dilemma is self-reinforcing and often lead to spirals such as the worsening of relationships and arms race; (3) the dynamics of security dilemma tend to increase their security, thus primarily defensive capability will contain some offensive capability.[59]

Hence, Iran's involvement in the war against Ukraine is best explained by the concept of security dilemma. For a long time, Iran has always used military tools as part of its asymmetric warfare, including its UAVs. Not to mention the collapse of JCPOA and the continuous international sanctions and embargoes from the international community undermines Iran's power against its adversaries in the Middle East, namely Israel, Saudi Arabia, and the United Arab Emirates (UAE). In order to increase its security, Iran continues to build up its armaments and supply Russia with its drones in Ukraine, which tightens the spiral further and heightens the risk of greater conflict. The international isolation left Iran with the inability to procure arms from an external partner, which threatens to drawback Iran's military advancements and its power by extension. As a country with hegemonic ambitions, a drawback to its military advancement would leave Iran to be more vulnerable and pose a threat to its security.

Accepting the fact that Tehran can no longer rely on external partners, this would drive the country to produce and scale up its own armaments, including its UAV fleet. In this case, UAVs are seen by Iran as their most valuable air defense network as well as to

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[57] Jarvis, "Cooperation under the Security Dilemma," 199.
[58] Shiping Tang, "The Security Dilemma: A Conceptual Analysis," *Security Studies* 18, no. 3 (October 2009): 594.
[59] Shiping Tang, "The Security Dilemma," 594–595.

complement Iran's limited and small air force which is indifferently maintained and trained. Understanding the justification behind Iran's UAV proliferation could help to identify the importance of supplying Russia with its drones which would be better examined through the concept of conventional deterrence in the next section.

3.3 Conventional Deterrence

The concept of deterrence was developed against the backdrop of the Cold War nuclear arms race and focused on the prevention of nuclear conflict.[60] As the majority of academic research and public debate was mostly concerned with the prevention of nuclear war during that time, this resulted in the association of the term deterrence with nuclear weapons.[61] Gerson defined deterrence as "the threat of force intended to convince a potential aggressor not to undertake a particular action because the costs will be unacceptable or the probability of success extremely low."[62] Defined as such, Morgan explained that two aspects of deterrence are interlinked, a policy and a situation. This implies that when a threat has been made by one state to affect the behaviour of another, the influences are shaped by the security environment surrounding the country, instead of domestic factors.[63] In other words, deterrence lies in the use of threats against an adversary to inflict fear and prevent them from attacking in the first place as the cost of a conflict outweighs the anticipated objective. However, in the case of conventional deterrence, this persuasion is done by conventional weapons as opposed to the use of nuclear weapons.

Even though during the Cold War the emphasis on deterrence was linked closely with nuclear weapons, Mearsheimer's book of *Conventional Deterrence* was among the most notable analyses that brought conventional deterrence into the spotlight in the 1980s. Mearsheimer identified three theories of conventional deterrence. The first one focuses on the type of weapons, that is between offensive or defensive weapons that are possessed by each side of the conflict. The second considers the balance of forces between the two sides and the third one deals with the type of military strategy that is being used.[64] In his book, Mearsheimer put the emphasis on the military strategy as he considers that military

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[60] Michael S. Gerson, "Conventional Deterrence in the Second Nuclear Age," *The US Army War College Quarterly: Parameters* 39, no. 3 (Autumn 2009): 34.
[61] Gerson, "Conventional Deterrence in the Second Nuclear Age," 34.
[62] Gerson, "Conventional Deterrence in the Second Nuclear Age," 34.
[63] Patrick M. Morgan, *Deterrence: A Conceptual Analysis* (California: SAGE Publications, 1977), 19.
[64] John J. Mearsheimer, *Conventional Deterrence* (New York: Cornell University Press, 1983), 25–28.

factors must be viewed in conjunction with the expected political gains. Due to this, he believes a state that employs deterrence as its military strategy must weigh the value of the desired political objective against the risks and costs of achieving it.[65]

As war is closely referred to as an instrument of policy, it means that political objectives are not the only factors that drive a country to engage in a war, but also the military means available to reach the objectives. For this reason, military capabilities inevitably affect political calculations.[66] Based on this, conventional deterrence is likely to prevail when the adversary believes that their probability of achieving their objectives is low and the potential costs will be high. Another factor that plays an important role in conventional deterrence is the probability of success. This would require a situation whereby conflict is potentially predicted to be more prolonged as the longer the conflict the higher the cost would be.[67]

Apart from this, in an attempt to achieve political objectives, the deterrer must constantly update both its threat and its capabilities to keep pace with the evolving challenge from the adversary. Therefore, conventional deterrence is not merely a static condition, but rather "an ongoing, dynamic, and strategic process," as Rhodes puts it.[68] He also stressed the importance of revealing this critical information to multiple actors and not just to the adversary alone as part of the deterrer's strategic interaction. That being said, wars could be used as an instrument to communicate both threats and capabilities, which would also establish a stronger deterrence. Rhodes claimed that participation in a war does not mean that deterrence has failed, but rather is seen as an important part of the ongoing strategic process that maintains it.[69]

It is necessary to point out the reasons why a state would feel the need to employ conventional deterrence in the first place. Gerson explained that states tend to be motivated by necessity rather than by opportunity, this means that decision-makers may be willing to take substantial risks and costs to prevent losing something they deem to be of great value, especially if inaction is believed to result in a certain and intolerable loss. Another factor could be derived from a leader's perception of an impending and detrimental change in the external security environment, such as a shift in the regional or international balance of power that could jeopardize the nation's long-term security or

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[65] Mearsheimer, *Conventional Deterrence*, 60.
[66] Mearsheimer, *Conventional Deterrence*, 61.
[67] Mearsheimer, *Conventional Deterrence*, 23–24.
[68] Edward Rhodes, "Conventional Deterrence," *Comparative Strategy* 19, no. 3 (September 2007): 229.
[69] Rhodes, "Conventional Deterrence," 233–234.

divert the attention away from the internal political instabilities and turmoil to prevent an even more dire outcome if they did nothing, such as the regime fall.[70]

Wirtz distinguished three different forms of deterrence: deterrence by retaliation, deterrence by punishment, and deterrence by denial.[71] According to his analysis, deterrence by retaliation is induced by nuclear threats, thus its explanation would be exempted from this thesis. Deterrence by punishment refers to the act of asserting hostility and intimidation on the adversary until compliance is achieved. It involves continuous threats or even escalating conflict in the face of unwanted actions and the cost would appear high for the adversary.[72] Meanwhile, deterrence by denial is based on the assumption that a country deters by preventing the adversary from obtaining its objectives in the first place. For example, threats to launch a pre-emptive attack to deny the adversary the military capability to launch the first attack.[73] In practice, Gerson suggested that a combination of both mechanisms is needed in order to achieve "a robust and flexible conventional deterrence strategy"[74] because while some adversaries can be deterred by the threat of punishment, others may be deterred by the threat of denial.

Similarly, there are three key components indicated by Haffa Jr. that the contemporary strategy of conventional deterrence must possess so it can be considered as capable and credible. First is the visibility of military force. One of the critical elements of deterrence is a significant military force to be recognized as it "must be seen to exist."[75] The deterrer has to be able to maintain the visibility of its conventional forces to be perceived as credible and capable. Second, the willingness to use force. This can be measured through communicating a capability to carry out a deterrent threat, demonstrating resolve, and showing a history of past uses of force. Third is the rationality of the use of force. This component is derived from the belief that there would be greater risks and uncertainties if a state chooses not to act on its conventional deterrent threat than the other way around.[76] Thus, conventional deterrence must possess military force with the global reach and power projection capacity to obtain and preserve its capability and credibility.

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[70] Gerson, "Conventional Deterrence in the Second Nuclear Age," 41.
[71] James J. Wirtz, "How Does Nuclear Deterrence Differ from Conventional Deterrence?," *Strategic Studies Quarterly* 12, no. 4 (Winter 2018): 66.
[72] Wirtz, "How Does Nuclear Deterrence Differ from Conventional Deterrence?," 68.
[73] Wirtz, "How Does Nuclear Deterrence Differ from Conventional Deterrence?," 70.
[74] Gerson, "Conventional Deterrence in the Second Nuclear Age," 37.
[75] Robert P. Haffa Jr., "The Future of Conventional Deterrence: Strategies for Great Power Competition," *Strategic Studies Quarterly* 12, no. 4 (Winter 2018): 102.
[76] Haffa Jr., "The Future of Conventional Deterrence," 102–103.

Based on the explanation above, conventional deterrence is driven by the need to inflict fear through threats to the adversary and it is usually shaped by the external environment of the deterrer instead of a domestic factor. This condition can help to explain Iran's motive to use UAVs as part of its conventional deterrence. Iran's strategic environment is influenced by the political situation with its adversaries in the Middle East and the confrontation with the US. Not to mention international sanctions imposed by the US and the EU that have crippled Iran's economy, which has cost the country approximately four trillion dollars within the past 15 years, along with near to zero economic growth, high inflation, and lack of domestic and international investments.[77] These sanctions not only have impacted Iran's economy negatively but also undermined Iran's position in the region. In the face of national insecurity, Iran must maintain sufficient regional influence within its neighbourhood, for this reason, Iran has placed a crucial role in its UAV program and sees it as a tool for conventional deterrence. Research shows that increased missile precision and the use of relatively low-cost UAVs give Iran new offensive options that enhance its deterrence posture.[78]

Despite the high cost that Tehran must pay from an even heavier sanction and isolation, the cooperation with Russia serves a greater interest for Iran. By asserting its weapons in Ukraine, Iran manages to show a high degree of dominance and power for a country that is being undermined and isolated by the international community. This is translated into a country that is highly durable to face pressures and capable of advancing its military posture under unfavourable conditions. Iran's involvement not only demonstrates the country's advanced technology in UAVs but also introduces Iran as an emerging power of drone exporters on a global scale. The ability to supply the second-largest arms exporter and great power such as Russia with its domestically produced drones is seen as a power projection capacity, which played an important part in Iran's conventional deterrence. Against this conceptual background, it becomes possible to critically discuss the findings of the study. The next section will lay out the methodology used to conduct this research.

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[77] Mardo Soghom, "Iran's Losses from Nuclear Sanctions Runs Into Trillions of Dollars," *Iran International*, July 1, 2023, https://www.iranintl.com/en/202307015599.
[78] International Institute for Strategic Studies, *Open-Source Analysis of Iran's Missile and UAV Capabilities and Proliferation* (London: IISS, 2021), 8.

Chapter 4: Methodology

This section will lay out how the data was collected and analysed. First, it introduces the research design and explains the type of research conducted. Second, it discusses data collection with an explanation of how the sources were collected.

4.1 Research Design

The approach used for data collection and analysis is qualitative and it will be used throughout the research process. The focus of this research is understanding the strategic implications for Iran by supplying UAVs to Russia in Ukraine. Therefore, the method chosen for this research is a single case study. According to Arie M. Kacowicz, a single case study usually provides tests that strongly support or challenge concepts based on a single event. One of the major advantages of case study methods is the construction of historical and detailed explanations of particular cases through in-depth examination. Meanwhile, one of the disadvantages of a single case study is its limited explanatory range.[79] However, Kacowicz emphasized that the use of one case study can serve important heuristic purposes by providing plausibility in explaining different theories and revealing the strength of the theories that are being used.[80] Against this backdrop, the chosen single case study of Iranian drone transfer to Russia in the war against Ukraine will provide a deeper understanding of the connection between the arms race and the security dilemma as well as Iran's motive as part of its conventional deterrence strategy.

In this research, the case study of UAVs transfer to Russia in the war against Ukraine is being used because the war in Ukraine is a contemporary conflict that is currently happening and has gained major concerns from the international community. Specifically, Iran's involvement in this conflict received worldwide attention, due to the fact that the Iranian government had denied all accusations referring to its role in the war, meanwhile, the shot-down drones are proved to be of Iranian origin. This complexity of Iran's involvement in the war raises a question behind Iran's strategic motives despite the international sanctions and isolation the country had already faced. Thus, the findings of this research would contribute to the theoretical framework of realism, security dilemma

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[79] Arie M. Kacowicz, "Case Study Methods in International Security Studies," in *Models, Numbers, and Cases: Methods for Studying International Relations*, ed. Detlef F. Sprinz and Yael Wolinsky-Nahmias (Ann Arbor: The University of Michigan Press, 2004), 107–108.
[80] Kacowicz, "Case Study Methods in International Security Studies," 115.

and conventional deterrence in better understanding the strategic rationale a country would engage in a war. Meanwhile, the limited range of explanatory due to a single case method would not pose as a problem in this research because it will allow for the in-depth examination of Iranian UAVs supply in the war in Ukraine.

In terms of data analysis, process tracing through primary and secondary sources is used to address the research question. The chosen method is best used in this research as process tracing is commonly applied for qualitative and case-based analysis. According to David Collier, process tracing is "an analytic tool for drawing descriptive and causal inferences from diagnostic pieces of evidence, often understood as part of a temporal sequence of events or phenomena."[81] Based on this description, process tracing is a suitable method for analysing this research because it compliments the use of a single-case study focusing on the unfolding situation of Iran's participation in the war in Ukraine.

Process tracing requires finding diagnostic evidence which would provide the basis for analysing descriptive and causal inference. In order to identify evidence that can be interpreted as diagnostic, prior knowledge must be consulted.[82] In this research, prior knowledge will be drawn from the theoretical framework of realism, security dilemma, and conventional deterrence. For realism, secondary sources such as books and journals by scholars including Hans J. Morgenthau and Kenneth W. Thompson, Kenneth N. Waltz, John J. Mearsheimer were consulted as these are known proponents of political realism. Recent scholars were also used namely Jonathan Monten, Shameer M, Jeffrey W. Taliaferro, Keith B. Payne, and Keith Smith. In highlighting the concept of security dilemma, secondary sources in the form of journal articles were consulted including the writings of John H. Herz, Robert Jarvis, and Shiping Tang. Meanwhile, the explanation of conventional deterrence was derived from books and journals by Michael S. Gerson, Patrick M. Morgan, John. J Mearsheimer, Edward Rhodes, James J. Wirtz, and Robert P. Haffa Jr.

Upon identifying the set of interrelated theoretical background, it is then possible to identify the diagnostic evidence, which in this case involves a variety of events that contribute to Iran's drone proliferation in the region and beyond such as Iran's military doctrine and strategic interest, the overview of Iran's drone arsenal (the rise of its drone programme and its current inventory), the diverse use of Iranian drones (military use,

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[81] David Collier, "Understanding Process Tracing," *Political Science and Politics* 44, no. 4 (October 2011): 824.
[82] Collier, "Understanding Process Tracing," 824.

transfer to proxy groups, and arms export), and the unfolding event of Iran's drone transfer to Russia in the war against Ukraine. In presenting this evidence, primary sources were obtained from official statements of the Ministry of Foreign Affairs (Ukraine and Iran), Council of the EU, UNSC, IAEA, The US Government, and the British Government. Secondary sources were derived from a variety of news articles and reports from research organisations.

After the explanation of the diagnostic evidence that presented Iran's involvement in the war and the negative consequences that followed, a research analysis based on prior knowledge can be drawn through descriptive and causal inference. Therefore, the analysis of strategic implications for Iran in transferring drones to Russia will be conducted by applying the framework of the security dilemma and conventional deterrence.

The security dilemma draws heavily on the explanation by John H. Herz, Robert Jarvis, and Shiping Tang, which was presented in the previous chapter. All three scholars argue that the perceived threat from an adversary or external environment of the state could drive an arms race. Specifically for a state that values military technology as a means towards its national security, arms build-up through cooperation could be interpreted as the way a state could project power and ensure its security. In this case, the presence of military gains from cooperation with Russia must be present to confirm the strategic advantage for Iran in supplying Russia with drones. Therefore, the advancement of arms procurement received by Iran and the situation of Iran's air fleet must be addressed. In presenting the analysis, diverse use of secondary sources was mainly used such as a variety of news articles and reports from research organisations.

Apart from military gains, Iran's strategic implications would be analysed through the application of conventional deterrence by Haffa Jr. He argues that a state which employs conventional deterrence strategy must possess three key components. To confirm that Iran's drone in the Russia-Ukraine war is part of its conventional deterrence strategy, an assessment of Haffa's components: the visibility of military force, the willingness to use force, and the rationality of the use of force must be presented. After analysing Iran's strategic gains from the security dilemma and conventional deterrence, it is possible to confirm and conclude the underlying motives behind Iran's action to support Russia in invading Ukraine by transferring drones.

4.2 Data Collection

The data collected and analysed in this research is derived from primary and secondary sources. The primary sources include official statements and press releases by an official institutions and official governments. In this case, official institutions include the European Union (EU), North Atlantic Treaty Organization (NATO), United Nations (UN), and International Atomic Energy Agency (IAEA). Meanwhile, primary sources from official governments will be obtained from the Ministry of Foreign Affairs of the Islamic Republic of Iran, the Ministry of Foreign Affairs of Ukraine, The United States Department of State, and the Foreign, Commonwealth and Development Office (FCDO).

The secondary data include literature from academic and non-academic sources. The academic literature includes books and journals. Books are mostly used to explain the theoretical framework and methodology. Journals are being used throughout the research, mostly the journals obtained were in relation to international security and strategic studies such as the Journal for Peace and Nuclear Disarmament, Journal for Iranian Studies, International Organization, International Studies Review, International Security, Foreign Affairs, Journal of Strategic Studies, Terrorism Monitor, World Politics, Security Studies, and Middle East Journal to name a few. Both sources from books and journals were used to look into the political and historical context of Iranian UAV proliferation. Previous academic literature was also analysed through several academic journals to understand the research problem and identify research gaps.

In terms of non-academic literature, sources were acquired from publications such as policy notes, reports, and research papers by think tanks and research organisations in security and strategic studies, including the International Institute for Strategic Studies (IISS), Carnegie Endowment for International Peace, Stockholm International Peace and Research Institute (SIPRI), the Royal United Services Institute (RUSI), Hudson Institute, and Network for Strategic Analysis, among others. These sources delve into the perspectives of those working in the field and help in defining concepts and key principles according to the international security and strategic field. In order to remain objective and to prevent bias, sources from news articles by Iranian news agencies will also be used, such as Tasnim News Agency, Press TV, Iran International, Tabnak, the Islamic Republic News Agency (IRNA), Mehr News Agency, Fars News Agency, MEMRI TV, Tehran Times, Iran Press News Agency, and the Iranian Students News Agency (ISNA). Therefore, all secondary data will be analysed from a non-biased researcher's point of view in order to remain objective and ensure credibility.

Chapter 5: Research Findings

This chapter will identify the Iranian strategic interest and its UAV proliferation. First, it will provide an explanation of how the Iranian military doctrine defines its strategic interest. Second, it will provide an overview of the Iranian drone arsenal including the rise of its UAV programme and the current inventory. Second, it will present the diverse use of Iranian drones in the Middle East and beyond. Third, the section will explain the role of Iranian UAVs in the Russia-Ukraine War. It is imperative to understand the importance of UAVs for the Iranian military and its proliferation in the region as well as the war in Ukraine to be able to provide a strong argument for the research question.

5.1 Iran's Military Doctrine and Strategic Interest

In terms of understanding the importance of UAVs for Iranian military strategy, an explanation of how the Iranian military defines its strategic interest and how the country sets its foreign policy is imperative in this case. Under the Presidency of Ebrahim Raisi from 2021 to 2024, Iran's foreign policy was aimed at advancing its strategic interest which pivoted towards Eurasia, mainly Russia and China. The growing anti-Westernism characterises an approach that views the US as a declining power and adopts a more defiant stance towards the Western states. This was highlighted in Iran's full membership in the Shanghai Cooperation Organization (SCO) in 2022 and closer partnership with Russia in drone transfer.[83] Apart from the geopolitics purposes, this policy is equally important for the Iranian geoeconomics in countering US sanctions.[84] The IRGC's growing influence in Iranian politics further amplifies the importance of drones for Iran's foreign policy in militarisation and it can be seen through the intensifying support for its Axis of Resistance.[85] The reorientation towards Eastern partnerships and strategic shift towards militarisation paves the way for the Iranian government to utilise its drone capabilities for enhanced regional cooperation.

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[83] Luciano Zaccara, "Raisi's Foreign Policy: Revitalizing Iran's International Position with a non strategy," *Middle East Council on Global Affairs*, April 19, 2024, https://mecouncil.org/publication_chapters/raisis-foreign-policy-revitalizing-irans-international-position-with-a-non-strategy/.

[84] Mohammadbagher Forough, *Raisi's Foreign Policy: Pragmatic Revolutionism and the Iranian Pivot to Asia* (Hamburg: German Institute for Global and Area Studies, 2021), 5–6.

[85] Hamidreza Azizi, "Iran's Evolving Foreign Policy Structure: Implications on Foreign Relations," *Middle East Council on Global Affairs*, June 5, 2024, https://mecouncil.org/publication/irans-evolving-foreign-policy-structure-implications-on-foreign-relations/.

As with any nation, Iran seeks to attain its strategic security objectives by fashioning a strategy informed by perceived threats and opportunities that might affect Iran's interests. The current approach to Iran's military doctrine reflects years of dealing with a complex geopolitical environment. Major factors that shape Iranian post-revolution military doctrine are the losses of men and equipment during the 1980-1988 Iran-Iraq War and weapons sales restriction by the US.[86] This is further emphasized following the US invasions of Afghanistan in 2001 and Iraq in 2003 and the 2006 Israel-Hizballah War, Iran began to adjust its military doctrine and directed its focus in countering and deterring threats from technologically advanced Western militaries.[87] Ever since then, Iran has adapted its military thinking and approach to modern conflict.

From this point, Tehran started to equip its armed forces with niche capabilities emphasising asymmetric tactics.[88] Iran has expanded its asymmetric use of conventional military capabilities, which are subjected into three main categories, conventionally armed missiles with ballistic missiles as the main figure, unmanned aerial systems or drones, and naval capabilities including fast-attack craft, missile boats, and small submarines.[89] All of these three military capabilities comprise a key part of Iran's overall security strategy. In August 2005, former Iran's Defense Minister, Mostafa Muhammad Najjar, stated that Iran's military objectives are the development of its air defenses and ballistic missiles.[90] In this case, UAVs are becoming one of the key figures of Iranian air defenses strategy.

Iran learned from the past that its lack of technological and material capabilities along with the inability to rely on other states left Tehran with no choice but to aim for self-reliance. Against this backdrop, self-reliance and independence in its ability to train and equip its armed forces and secure its national interest became a key tenet in Iranian military doctrine.[91] This doctrine was later on reaffirmed by Mostafa Muhammad Najjar in February 2007 that Iran is seeking to achieve military self-sufficiency by conducting research and development in modern industries as well as developing the capability to

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[86] Steven R. Ward, "The Continuing Evolution of Iran's Military Doctrine," *Middle East Journal* 59, no. 4 (Autumn 2005): 560.
[87] Defense Intelligence Agency, *Iran Military Power: Ensuring Regime Survival and Securing Regional Dominance* (Washington: U.S. Government Publishing Office, 2019), 9.
[88] Defense Intelligence Agency, *Iran Military Power*, 9.
[89] John P. Caves III, "Leveling the Field: Iran's Asymmetric Use of Conventional Military Capabilities," *Iran Watch*, February 28, 2022, https://www.iranwatch.org/our-publications/articles-reports/leveling-field-irans-asymmetric-use-conventional-military-capabilities#f2.
[90] Ward, "The Continuing Evolution of Iran's Military Doctrine," 570.
[91] Frederic Wehrey et al., *Asymmetric Ambition and Conventional Reality: Iran's Evolving Defense Strategy, Doctrine, and Capabilities* (Santa Monica: RAND Corporation, 2009), 56.

fight with modern technology.[92] Based on Iran's military doctrine of military self-sufficiency, it is imperative to point out that the country aims to reduce its dependence on foreign supplies, minimise the effects of sanctions, and achieve its objective of becoming a modern military power with technological advancements. Elicited from the explanation above, Iranian modern military doctrine does not generally descend from Islamic teachings and Iranian revolutionary ideology. Rather, Tehran's military doctrine is mostly drawn on military lessons learned from past war experiences and regional environments.[93]

Given that Iran's military doctrine is the driving force to achieve its national interests, Tehran's security and military strategies are based on the following two enduring strategic objectives. The first is regime survival. Ensuring the continuation of clerical rule and the regime's continued legitimacy through the leadership of the Iranian Supreme Leader is a fundamental strategic goal of Iran.[94] The second is demonstrative deterrence. Tehran operates its military and security capabilities to counter external threats and potential attacks from foreign adversaries, including perceived existential threats, namely the US and Israel, and regional rivals such as Saudi Arabia and the UAE.[95] The nature of this defensive goal also consists of offensive capabilities by providing support to allies and partners. In pursuit of this goal, Iran provides extensive military, advisory, and financial assistance to both of its allies and partners while at the same time, these would provide Tehran with more lethal and clandestine means to project power.[96]

From the explanation above, it can be concluded that Iran views UAVs as a means towards achieving its strategic objectives. Drones are seen as a paramount tool for Iran's asymmetric warfare, therefore it is only logical for Tehran to develop self-sufficiency in producing its own drones domestically. This would justify the development of Iran's drone arsenal over the years and along with it, the growing presence of its drone proliferation both within the Iranian borders and abroad.

5.2 Overview of Iranian UAVs Arsenal

This section will delve into the historical context of Iranian UAVs from their first development to their current capacity and capabilities. Thus, this section is divided into

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[92] Wehrey et al., "Asymmetric Ambition and Conventional Reality," 56.
[93] Matthew McInnis, *The Strategic Foundations of Iran's Military Doctrine* (London: International Institute for Strategic Studies, 2017), 3.
[94] Defense Intelligence Agency, *Iran Military Power*, 13.
[95] Defense Intelligence Agency, *Iran Military Power*, 13.
[96] J. Matthew McInnis, *Iran's Strategic Thinking: Origins and Evolution* (Washington: American Enterprise Institute, 2015), 19–20.

two parts. The first part will introduce the historical background of Iranian UAVs. The second part will explain the current status and the development of these weapons.

5.2.1 The Rise of the Iranian UAV Programme

The presence of Iranian drones has become more prominent in the 21st century. Iran's heavy reliance on its drones is considered to be common knowledge. However, this concept did not raise alarming concerns from military strategists four decades ago as drones were not seen as formidable weapons as Iran's ballistic missiles. To understand the growing depiction of Iranian drones as threatening and destabilizing, a look back on the Iran-Iraq War from 1980 to 1988 is necessary when the first Iranian drone was manufactured and deployed.

During the first four years of the Iran-Iraq War, Iran had seen the use of artillery rockets, ballistic missiles, and aircraft by the Iraqi forces targeting cities close to the border. At that time, these actions did not particularly change the military balance and political situation of Iran. However, this situation changed rapidly in 1984 when Iraq began targeting Iranian population cities, including Tehran, Esfahan, and Shiraz with Soviet and French-equipped air forces.[97] Iran struggled to deter Baghdad as its aircraft were increasingly vulnerable to Iraqi air defenses and Tehran's artillery rockets could only reach a maximum range of 30 km.[98] As an initial response to Iran's immediate defense needs, the country sought to import weapons from their allies. This plan was quickly hindered due to a series of international sanctions causing Tehran not to be able to rely on the procurement of weapons from external actors. The only way to advance its air force is through the use of cheap, indigenous alternatives, and asymmetric strategies.

Against this backdrop, Tehran started to develop interest and began developing its own drones. UAVs are considered to be able to fill the gap of the inadequacy of a combat aircraft, that is the ability to mitigate the risk of loss. This refers to the ability to operate drones from a great distance without risking the life of the pilot or crew in case the drone is downed in hostile territory. Another factor worth considering for Tehran is the inexpensive cost of a drone instead of a manned aircraft.[99] In 1985, the Iranian military

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[97] Fabian Hinz, *A Roadmap to Pragmatic Dialogue on the Iranian Missile Program* (London: European Leadership Network, 2019), 2–3.
[98] International Institute for Strategic Studies, *Addressing the Iranian Missile Threat: A Regional Approach to Risk Reduction and Arms Control* (London: IISS, 2022), 7.
[99] Douglas Barrie, "Iran's Drone Fleet," *United States Institute of Peace*, July 1, 2021, https://iranprimer.usip.org/blog/2020/aug/20/irans-drone-fleet.

established the Quds Aviation Industry Company to lead its first drone development and later that year the company successfully manufactured the first Iranian drone, Mohajer-1. This drone was designed to conduct Intelligence, Surveillance, and Reconnaissance (ISR) operations during the Iran-Iraq War. Mohajer-1 was used to photograph Iraqi infantry positions in preparation for attack and to yield intelligence that would prevent Iranian armies from walking into an ambush.[100] The following year, the second Iranian drone branded as Ababil-1 was built by the Iran Aircraft Manufacturing Industrial Company (HESA). The Ababil-1 was a loitering munition launched from a catapult on a truck, similar to a cruise missile.[101] Contrary to Mohajer, the Ababil drone was designed for a combat role.

Following the aftermath of the Iran-Iraq War, Iranian Revolutionary Supreme Leader, Ayatollah Ruhollah Khomeini, called its drones an important military tool against its adversaries. Later on, then Iran's Minister of Culture and Islamic Guidance, Mohammad Khatami, promoted a mass-market movie called Mohajer in 1990, which depicted a drone division striking Iraqi targets during the Iran-Iraq War.[102] From this point on, Iran was determined to turn its Mohajer and Ababil drones into advanced UAVs. As a result, Tehran built several generations of each of these drones from the 1980s to 2010 and the amount of drone production went up to 600 in total. Mohajer was primarily used by the Iranian army known as the Islamic Republic of Iran Army Ground Forces (NEZAJA) and Ababil was mostly used by the Islamic Revolutionary Guard Corps (IRGC).[103]

In the face of severe sanctions mainly by the US, Tehran continues to develop a domestic production base for a variety of its UAVs with short and long-range strike and reconnaissance capabilities. Despite its sovereign capability, Tehran also acquired parts of components for its drones from the grey market, including engines and micro-electronics. In 2008, the US State Department suspected that Qods Aviation was trying to purchase lightweight German engines through French intermediaries. Five years later, German prosecutors charged a German-Iranian dual citizen and an Iranian man with the

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[100] Snehesh Alex Philip, "Why Iran's drone programme is a 'triumph' – Harsh sanctions, western components & simple designs," *ThePrint*, January 23, 2023, https://theprint.in/defence/why-irans-drone-programme-is-a-triumph-harsh-sanctions-western-components-simple-designs/1326076/.

[101] Seth J. Frantzman, *Drone Wars: Pioneers, Killing Machines, Artificial Intelligence, and the Battle for the Future* (New York: Post Hill Press, 2021), 102.

[102] Michael Rubin, *A Short History of the Iranian Drone Program* (Washington: American Enterprise Institute, 2020), 4.

[103] Frantzman, *Drone Wars*, 103.

alleged illegal export of 61 aircraft engines for Tehran's UAV programme.[104] Tehran also benefitted from other states' UAV designs, mainly those of the US, that were captured due to technical problems or hostile actions. In this case, drones have been able to supplement or replace the roles of Iranian combat aircraft that they cannot maintain.[105]

5.2.2 Current Status of UAVs Arsenal

Not long after the production of Mohajer and Ababil drones, Iran developed the Karrar prototype in 2009 which was Iran's first long-range strike drone.[106] Former Iranian President, Mahmoud Ahmadinejad, called the Karrar drone a "messenger of glory and salvation for humanity," but referred to it as an "ambassador of death" to the country's adversaries.[107] From this statement, Iran's intention could be interpreted as sending a threatening signal to its adversaries that the country is currently underway in producing advanced capabilities towards its air force. After the introduction of the Karrar drone in 2010, Iran quickly unveiled several new UAV platforms for the following years.

As a country with a quick ability to embrace and adopt new technology, the vast majority of Iran's current drone fleet is domestically manufactured. Even though some parts may have been acquired from the grey market or were acquired covertly, one thing is certain, the Iranian military has an impressive drone arsenal.

Tehran operates drones regularly both for reconnaissance and attack purposes, and its drone production varies across most weight categories. According to NATO Standardization Agreement 4670, drones are classified into three classes based largely on their maximum take-off weight. Class I encompasses an array of designs ranging from tiny handheld drones to larger multirole systems with a weight of less than 150 kg. The majority of Class I aircraft are used to carry ISR missions without carrying aerial weapons, except for loitering munitions or drones armed with a small explosive warhead and designed to explode on impact, such drones are usually known as suicide drones or kamikaze drones. Class II are usually referred to as tactical UAVs with a weight from 150 kg up to 600 kg and can be equipped with multiple payloads such as electro-optical and infrared sensors, laser designators or illuminators for targeting, communications relay

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[104] Rubin, *A Short History of the Iranian Drone Program*, 4.
[105] International Institute for Strategic Studies, *Open-Source Analysis of Iran's Missile and UAV Capabilities and Proliferation* (London: IISS, 2021), 23.
[106] Rubin, *A Short History of the Iranian Drone Program*, 4.
[107] John Drennan, *Iranian Unmanned Systems* (London: International Institute for Strategic Studies, 2017), 34.

equipment, and air-to-ground guided missiles. Lastly, Class III are sometimes referred to as medium-altitude long-endurance (MALE) or high-altitude long-endurance (HALE) UAVs with a weight of more than 600 kg and capable of carrying a mix of weapons, but some drones in this class can be designed solely for intelligence-gathering purposes.[108] As of the year 2024, the Iranian military has manufactured and deployed a wide variety of its UAV models, many of which include 3 or 5 variants. (See Table 1)[109]

Table 1: Iranian UAVs Arsenal			
Name	**Year Introduced**	**Class**	**Role**
Ababil-1	1980s	I	UCAV
Ababil-2/Ababil-T	1999	I	Kamikaze UAV
Ababil-3	2010	II	ISR
Ababil-5	April 2022	II	UCAV
Arash-1 (Kian-1)	September 2019	II	Kamikaze UAV
Arash-2 (Kian-2)	September 2022	II	Kamikaze UAV
Fotros	2013	III	UCAV
Hamaseh	May 2013	II	ISR
Kaman	April 2019	III	UCAV
Karrar	2010	II	Kamikaze UAV
Meraj	September 2019	I	ISR
Mohajer-1	1985	II	UCAV
Mohajer-2	1996	II	ISR
Mohajer-4	September 2014	II	UCAV
Mohajer-6*	April 2017	II	UCAV
Mohajer-10	August 2023	II	UCAV
Nazir	August 2014	I	ISR
Raad-85	2013	I	Kamikaze UAV
Saegheh	May 2010	III	UCAV
Sarir-1	April 2013	I	UCAV
Shahed-123	September 2012	II	UCAV
Shahed-129	2012	III	UCAV

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[108] Dan Gettinger, *The Drone Databook* (Washington: The Center for the Study of the Drone at Bard College, 2019), 4.

[109] This data is collected from open-source reports, books, and news articles, and may not be exhaustive as the complete list of Iran's drone inventory has not been reported publicly by the Iranian government. Data is compiled mainly from the following resources: International Institute for Strategic Studies, *Open-Source Analysis of Iran's Missile and UAV Capabilities and Proliferation* (2021); Michael Rubin, *A Short History of the Iranian Drone Program* (2020); Dan Gettinger, *The Drone Databook* (2019); Tal Beeri, *Iran's "UAV Army" – A Global Threat* (2021); as well as news articles including Jerusalem Post, Islamic World News, Alarabiya News, Military Factory, Tasnim News Agency, and Iran Press.

Shahed-131*	January 2021	I	Kamikaze UAV
Shahed-136*	December 2021	II	Kamikaze UAV
Shahed-149 (Gaza)	May 2021	III	UCAV
Shahed-171 (Simorgh)	May 2015	III	ISR
Siraf	May 2016	-	ISR
Yasir	September 2013	I	ISR

*Key: *Reported Iranian drones used by Russia in the war against Ukraine; **UCAV**: Unmanned Combat Aerial Vehicle; **ISR**: Intelligence, Surveillance, and Reconnaissance.*

The extensive inventory of Iranian drones above further proved that its military strategy is in line with the country's military doctrine in achieving self-sufficiency in drone production. Despite the wide variety of its drone arsenal, two types of drones have been heavily reported for their military use by the Russian army in the war against Ukraine, Mohajer and Shahed.[110] Mohajer is known to be Iran's first line of UAV and while it was first used to conduct ISR missions, it was also Iran's first weaponized drone. Since its first production in 1985, the Iranian military has been able to develop other four Mohajer-type drones. Mohajer-4 was first unveiled in 2014 and reportedly had front cameras installed beneath the fuselage, enabling the drone to operate reconnaissance missions and monitor enemy moves while at the same time, the drone is also equipped with GPS-guide technology and can carry missiles.[111]

Three years later, IRGC unveiled Mohajer-6 in April 2017 which undertook its first cross-border combat mission in July 2019. According to Brigadier General of the Iranian Army Ground Force, Shahram Hassannnejad, Mohajer-6 is capable of carrying ISR missions with high precision and precision-guided projectiles, the ability to conduct operations in various weather conditions, and suitable to be used in different geographical locations.[112] The latest drone of this type is branded as Mohajer-10, unveiled in August 2023 during a ceremony with the presence of the Iranian President, Ebrahim Raisi. He specifically warned that "Our powerful armed forces will cut off any hand involved in

[110] Uzi Rubin, "Russia's Iranian-Made UAVs: A Technical Profile," *RUSI*, January 13, 2023, https://www.rusi.org/explore-our-research/publications/commentary/russias-iranian-made-uavs-technical-profile.
[111] "Iranian-Made Mohajer Drones Fly in Army Drills," Tasnim News Agency, December 25, 2014, https://www.tasnimnews.com/en/news/2014/12/25/598727/iranian-made-mohajer-drones-fly-in-army-drills.
[112] "Iranian Army unveils new drone called Mohajer 6," Tehran Times, July 17, 2019, https://www.tehrantimes.com/news/438266/Iranian-Army-unveils-new-drone-called-Mohajer-6.

aggression against Iran" while introducing the upgraded variant of Mohajer-6.[113] This domestically manufactured drone has a maximum cargo weight of 300 kg and is equipped with a variety of smart weapons with high accuracy including Qaem, Almas and Dastvareh as well as electronic warfare equipment and intelligence systems.[114]

The Shahed-type family of drones is known to be the main staple of the IRGC's UAV fleet.[115] While this type of drone comes with six variants, Shahed-131 and Shahed-136 seemed to be the culmination of the line. Shahed-131 was first introduced in January 2021 and has several key characteristics including a length of 2,6 meters, weighs 135 kg, and can detonate a target within a radius of 900 km with great accuracy.[116] Meanwhile, the upgraded version, Shahed-136, was first unveiled by the IRGC during a massive joint military exercise called the Great Prophet 17 drills in December 2021.[117] The Shahed-136 drone measures 3,5 meters long, weighs 200 kg, and is designed with a delta-wing shape, with stabilising rudders at the tips. This portable assault drone can achieve a maximum speed of 185 km per hour with a range of 2,500 km, can carry up to 40 kg warheads at its nose section and can be launched from a military or commercial truck.[118] Both Shahed-131 and Shahed-136 are Iranian loitering munitions, classified as suicide drones, also known as kamikaze drones.[119]

Iran's success in mass-producing and modernising its UAV program could also be seen as the country's effort to make up for its outdated and old air fighters. The Air Force's squadron uses American-made F-14s, F-5s and F-4s dating from the 1970s, MiG-29s from the 1980s, Sukhoi fighter bombers and J-7s that Tehran bought from China during the 1990s. The unsuccessful attempts of Iran to buy new fighters eventually led the country to opt for upgrading and copying its older fighters endlessly.[120] Due to this, Iran has

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[113] "Raisi warns against any attacks on Iran as Tehran unveils latest attack drone," Alarabiya News, August 22, 2023, https://english.alarabiya.net/News/middle-east/2023/08/22/Iran-unveils-advanced-Mohajer-10-drone-with-enhanced-flight-range.

[114] "Iran Unveils Latest Version of Mohajer Drone," Tasnim News Agency, August 22, 2023, https://www.tasnimnews.com/en/news/2023/08/22/2945074/iran-unveils-latest-version-of-mohajer-drone.

[115] Rubin, *A Short History of the Iranian Drone Program*, 6.

[116] "IRGC Ground Force Equipped with Suicide, Combat Drones," Tasnim News Agency, February 20, 2024, https://www.tasnimnews.com/en/news/2024/02/20/3042241/irgc-ground-force-equipped-with-suicide-combat-drones.

[117] "IRGC employs suicide drones in "Great Prophet 17" drills," Mehr News Agency, December 23, 2021, https://en.mehrnews.com/news/182108/IRGC-employs-suicide-drones-in-Great-Prophet-17-drills.

[118] "Shahed-136 Kamikaze UAV, Iran," Army Technology, April 26, 2023, https://www.army-technology.com/projects/shahed-136-kamikaze-uav-iran/?cf-view.

[119] "Iran's IRGC-Affiliated Tasnim News Agency Publishes Detailed Overview Of Iran-Made Suicide Drones," MEMRI TV, March 26, 2024, https://www.memri.org/reports/irans-irgc-affiliated-tasnim-news-agency-publishes-detailed-overview-iran-made-suicide#_edn4.

[120] David Axe, "Iran Has One of the World's Most Outdated Air Forces," *The National Interest*, October 30, 2021, https://nationalinterest.org/blog/reboot/iran-has-one-worlds-most-outdated-air-forces-195428.

redirected its military focus to maximising the modern capabilities of its industrial base in UAV development. Iranian officials have also stressed that unmanned systems are being incorporated into all branches of the Iranian military. Deputy Chief of Staff of the Iranian Armed Forces for Basij and Defense Culture, Brigadier General Massoud Jazzayeri, reaffirmed that "As regards aircraft and drones, all of our forces and all organizations of the Iranian Armed Forces have been equipped with this weapon and in different classes and types of defense. Our ground, naval and air divisions are using this weapon (drone) and we think that the higher Iran's defensive power and capability in this ground grows, the more it will contribute to our deterrence."[121]

Based on the statement above, it is clear that the Iranian military will most likely carry on producing and developing more of its drones, specifically in an effort to advance in terms of both the quality and quantity of Iranian drones. The Mohajer and Shahed types are both likely to continue to dominate the Iranian UAV variants and play a central role in the Iranian military inventory. Given its success in obtaining self-independent in its UAV production, Tehran would have open opportunities to support a broad range of developments in advancing its wide variety of drones. From this point of view, drones are undoubtedly will continue to substitute for Iran's comparative lack of conventional air power[122] and as a part of its broader plans for strengthening the country's air defense capabilities.

5.3 The Diverse Use of Iranian UAVs

Apart from showcasing its UAV fleet to herald a new system and capability, Iran has three primary means of drone employment: military use, transfers to proxy groups, and arms export. All of these activities contributed to its drone proliferation in the Middle East and abroad and offer three unique levels of analysis to view Iran's capabilities and intentions.

5.3.1 Military Use

The Iranian military has been known to deploy its drones for three main purposes, namely surveillance, military exercise, and attack. Aerial surveillance purposes have always been

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[121] "Commander: Iran Equips All Military Units with Drone Capability," *Fars News Agency*, December 10, 2012,
https://www.thefreelibrary.com/Commander%3A+Iran+Equips+All+Military+%20Units+with+%20Drone+Capability.-a0311481400.
[122] International Institute for Strategic Studies, *Open-Source Analysis of Iran's Missile and UAV Capabilities and Proliferation*, 24.

a vocal point in advancing the capability of the Iranian military as the first drone created by Tehran, Mohajer-1, was developed to provide intelligence data. The development of monitoring and reconnaissance drones continues through the Quds Aviation Industry Company, an IRGC affiliate, under the supervision of the Ministry of Defense and the IRGC's Aerospace Force which are responsible for managing drone research and development program along with guidance from Shahed Aviation Industries.[123]

Iran mainly conducts its aerial surveillance over the Persian Gulf, around the Strait of Hormuz, which nearly a third of all oil traded by sea passes and every ship movement that passes through this part of the Indian Ocean would be detected by Tehran and Washington is not an exception. In September 2013, IRGC Commander, Mohammad Ali Jafari stated that the Shahed-129 was built to protect Iran's vast borders including countering adversaries or any other insecurities.[124] One year later after this statement was made, the first Iranian drone that flew over a US carrier in the Persian Gulf was reported in 2014. The Shahed-129 was seen flying over the USS Harry S. Truman while the carrier was located southwest of the Iranian port of Bushehr. The same type of drone was later on reported to fly over another US aircraft carrier, the USS George H.W. Bush in September 2016.[125] Despite this encounter, Iran reaffirmed its intention that aerial surveillance is part of its military routine to monitor border units, as confirmed by the Iranian Army Ground Force Commander, General Ahmad Reza Pourdestan in 2016.[126]

The increasing presence of the US forces in the Persian Gulf would make it a strategic concern for Tehran to maximise its capability to watch over Washington's activity in the Gulf. In October 2023, the Iranian Army released footage of an American Arleigh Burke-class warship passing through the northern part of the Gulf, which was captured through the four-drone squadron of Ababil-5 drones.[127] The drone managed to conduct surveillance over the warship for 24 hours and successfully retrieved accurate images and footage of seaborne US military assets. Iran claims that its drone capability could provide real-time and close details of Washington's movements around the Gulf including every warplane, military aircraft, and other equipment that had been deployed

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[123] Hamdi Bashir, "The Iranian Drone Program: Role and Scope of its Influence in Iran's Foreign Policy," *Journal for Iranian Studies* 7, no. 17 (June 2023): 32.

[124] Rubin, *A Short History of the Iranian Drone Program*, 7.

[125] Jon Gambrell, "AP Exclusive: Iran's drone first over US carrier since 2014," *AP News*, February 10, 2016, https://apnews.com/general-news-44df62b252ab45bfbf6ba878f02b4a11.

[126] Rubin, *A Short History of the Iranian Drone Program*, 7.

[127] "Iranian drone monitors U.S. vessel in Indian Ocean for 24 hours," Tehran Times, October 4, 2023, https://www.tehrantimes.com/news/489743/Iranian-drone-monitors-U-S-vessel-in-Indian-Ocean-for-24-hours.

in the carrier's deck.[128] The released footage of US ship activities in the Gulf by the Iranian Army could be interpreted that Iran aims to make its drone advanced capability known to the public, specifically its adversaries. From this point of view, it can be seen that Iran marked a statement that any ship movements over the Persian Gulf would be subjected to Iran's surveillance drones.

Apart from operating surveillance missions, Iranian drones are also used for military exercises. The IRGC launched a drone drill in January 2021 and called the operation to demonstrate the Guard's new power and capabilities.[129] The military exercise is considered to be important to ensure and put to the test several capabilities of the drone, including the accuracy and destruction power of weapons, flight endurance and combat capabilities, and performance of the control systems. To test these qualities, the UAVs carried out reconnaissance, combat, and patrol operations.[130] Based on this objective, Iran conducts its military exercises frequently throughout each year. It was reported by the Deputy Chief of the Iranian Army Force for Coordination Affairs, Rear Admiral Habibollah Sayyari that there were around 150 new advanced drones joined the military drill in August 2022.[131]

Around the same month of August 2022, the Aerospace Division of IRGC hosted the 2022 Falcon Hunting UAV Competition as a part of the seventh annual military game launched by Russia in 2015. The drone competition was held in the city of Kashan and attended by representatives from Russia, Belarus, and Armenia. In addition to facilitating an exchange of experiences and military achievements on drones, the competition was directed to test the performance and consistency of aerial reconnaissance in every situation including both day and night as well as to understand how UAVs could help guide precise artillery fire.[132] It is interesting also to point out that this drone competition

[128] "Iranian drone keeps US warship under surveillance for 24 hrs," Nour News, October 7, 2023, https://nournews.ir/en/news/152343/Iranian-drone-keeps-US-warship-under-surveillance-for-24-hrs.

[129] "Iran tests 'bomber drones' and missiles in third military exercise this month," Middle East Eye, January 15, 2021, https://www.middleeasteye.net/news/iran-bomber-drones-missiles-test-military-exercise.

[130] Morteza Ahmadi Al Hashem, "Iranian army to launch joint drone military exercise tomorrow," *Mehr News Agency*, August 23, 2022, https://en.mehrnews.com/news/190590/Iranian-army-to-launch-joint-drone-military-exercise-tomorrow.

[131] Morteza Ahmadi Al Hashem, "Iranian army to launch joint drone military exercise tomorrow," *Mehr News Agency*, August 23, 2022, https://en.mehrnews.com/news/190590/Iranian-army-to-launch-joint-drone-military-exercise-tomorrow.

[132] Maziar Motamedi, "Iran hosts drone tournament with Russia, Belarus and Armenia," *Aljazeera*, August 15, 2022, https://www.aljazeera.com/news/2022/8/15/iran-hosts-drone-tournament-with-russia-belarus-and-armenia.

as part of a collaboration with Russia was held one month before Ukraine's Air Force shot down the first reported Iranian drone in September 2022.[133]

The latest large-scale drone drill was conducted in October 2023 which features approximately 200 different reconnaissance and combat drones.[134] The 1402 Joint Drone Exercise covers the strategic water of the Persian Gulf and the Sea of Oman as this exercise is also part of Iran's strategy to monitor the country's frontiers and designate targets in the general zone of the exercise as well as international waters. During the exercise, Rear Admiral Habibollah Sayyari, announced that the Army has established the Zolfaqar headquarters as the command and control center for drone operations due to the expansion of its unmanned aerial capabilities, execution of numerous drone missions, and the need to enhance drone flight coordination.[135] Iran has made significant progress in designing and manufacturing its own electronic warfare equipment by utilizing specialized knowledge, technical expertise, and internal capabilities.[136] This massive drone drill further emphasised that Iran has achieved self-sufficiency in this field and consistently reiterated their commitment to test and improve their UAV capabilities.

The advanced precision and range of Iranian drones drive the Iranian Army to utilise these unmanned aerial systems to undertake offensive missions, such as attack operations. However, the past has shown that Iran rarely made a public statement to admit the offensive operations of its drones on foreign soil, except for two recent drone attacks on Pakistan and Israel. One of the major drone attacks operated by Iran was carried out on 16 January 2024 in the region of Kouh-Sabz, the Balochistan province of Pakistan.[137] The drone strikes were targeted towards the headquarters of a terrorist group called Jaysh al-Dhulm or Army of Justice.[138] In an official statement released by the Ministry of Foreign Affairs of the Islamic Republic of Iran, Tehran admitted that its drone strikes on

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[133] Valentyna Romanenko, "Ukraine's Air Force explains how to shoot down Iranian drones deployed by Russia," *Ukrainska Pravda*, September 20, 2022, https://www.pravda.com.ua/eng/news/2022/09/20/7368357/.

[134] "Iran's Army begins massive '1402 Joint Drone Exercise'," Iran Press, October 3, 2023, https://iranpress.com/-iran-s-army-begins-massive-1402-joint-drone-exercise.

[135] "Iran Army stages large-scale military drone drill across country," Press TV, October 3, 2023, https://www.presstv.ir/Detail/2023/10/03/711993/Iran-Army-stages-large-scale-exercise-involving-nearly-200-sophisticated-drones.

[136] "Iranian Army Launches Joint Electronic Warfare Drill to Evaluate Indigenous Systems," Tasnim News Agency, August 25, 2023, https://www.tasnimnews.com/en/news/2023/08/25/2946813/iranian-army-launches-joint-electronic-warfare-drill-to-evaluate-indigenous-systems.

[137] "Exclusive: Jaysh al-Dhulm Terrorist Group's Bases in Pakistan Hit by Missiles, Drones," Tasnim News Agency, January 16, 2024, https://www.tasnimnews.com/en/news/2024/01/16/3024333/exclusive-jaysh-al-dhulm-terrorist-group-s-bases-in-pakistan-hit-by-missiles-drones.

[138] Paul Fraioli, "The tit-for-tat conflict between Iran and Pakistan," *IISS Strategic Comments* 30, no. 4 (March 2024): 2.

Pakistan were conducted as a way to prevent the further infiltration of the Jaysh al-Dhulm terrorist group from operating its mission on Iranian soil, following the group's attack on the Iranian city of Rask.[139]

Following the attack on Pakistani soil, Tehran executed a retaliatory attack against Israel by deploying more than 300 Shahed-136 suicide drones on 12 April 2024.[140] The attack dubbed as Operation True Promise was in response to Israel's strike on the Iranian consulate in Damascus, Syria, on 1 April 2024 which killed seven Iranian military commanders. This single largest drone attack by Tehran marked the first time Iran attacked Israel directly from its soil.[141] Not only did Iran admit to carrying out the strike publicly, but the government warned the regional countries 72 hours prior to its launch in order for Israel and the US could prepare for confrontation. Even though most of its drones had been intercepted by Israel's air defense systems, Iran's mission should be seen in a broader context and not merely perceived the operation as a failure. The country's strategic thinking must be seen beyond its intention to strike its most prominent adversary in the region, if it did, Iran would not have shared its launching plan with its adversary in advance and its offensive tactics could have significantly exhausted Israel's military defenses with a heavier array of precision-guided drones. Instead, the deployment of its drones could be used as Iran's strategy for data intelligence gathering exercises regarding the country's assessment of Israeli air defense systems locations and capabilities. Furthermore, Iran forced both Israel and its ally, the US, to spend more than a billion dollars to counter its attack whereby Iran paid roughly one-tenth of that amount to order its attack.[142] This shows that Iran was trying to retaliate against Israel without risking its strikes to turn into a full and large-scale confrontation while at the same time still maintaining its deterrent.

[139] "The Statement of the Ministry of Foreign Affairs of the Islamic Republic of Iran regarding the recent incidents on the Pakistan border," The Ministry of Foreign Affairs of the Islamic Republic of Iran, January 18, 2024, https://en.mfa.ir/portal/newsview/738537/The-Statement-of-the-Ministry-of-Foreign-Affairs-of-the-Islamic-Republic-of-Iran-regarding-the-recent-incidents-on-the-Pakistan-border.

[140] "Details Emerge on Iran's Retaliatory Operation Against Israel," Tasnim News Agency, April 20, 2024, https://www.tasnimnews.com/en/news/2024/04/20/3072140/details-emerge-on-iran-s-retaliatory-operation-against-israel.

[141] Maziar Motamedi, "'True Promise': Why and how did Iran launch a historic attack on Israel?," *Aljazeera*, April 14, 2024, https://www.aljazeera.com/news/2024/4/14/true-promise-why-and-how-did-iran-launch-a-historic-attack-on-israel.

[142] Dr Sanam Vakil and Bilal Y. Saab, "Iran's attack on Israel was not the failure many claim but it has ended Israel's isolation," *Chatham House*, April 16, 2024, https://www.chathamhouse.org/2024/04/irans-attack-israel-was-not-failure-many-claim-it-has-ended-israels-isolation.

5.3.2 Transfer to Proxy Groups

In alignment with Iran's strategic means of deterrence, the country has been known to provide a variety of extensive support towards its non-state allies in the region, the Axis of Resistance. This support includes UAV transfer and technical assistance to Iran's proxies, namely Hezbollah (Lebanon), Hamas (Gaza), The Houthis (Yemen), and Iraqi Militias (Iraq) which will be explained further respectively. These activities are contributing to further drone proliferation in the Middle East and caused great concerns among states regarding Iran's ambitious goal of power projection through its proxies in the already unstable region.

Hezbollah was the first non-state actor to use UAVs against a state power when the group decided to dispatch its reconnaissance drone in 2004 to Israeli airspace. The drone branded Mirsad-1 is an updated version of the Iranian Mohajer drone used for reconnaissance purposes. In the early rise of their drone activity, Iran supplied Hezbollah with eight Mirsad-1 drones and about 30 Hezbollah operatives had received training at the IRGC base near Isfahan to fly missions similar to the Mirsad type.[143] This first recorded drone deployment set a precedent for Hezbollah's emergence as the UAV leader among non-state armed groups.

The drone supply to Hezbollah by Iran mainly served as one of the means Tehran could gain valuable information on Israel. This was shown in October 2012 when Hezbollah managed to successfully deploy an Ayoub drone of Iranian origin from Lebanon to the city of Dimona for the purpose of conducting surveillance over Israel's nuclear weapons manufacturing facility.[144] Even though the drone was eventually shut down by an Israeli fighter plane, the drone was able to capture the facility for several hours. Weeks later, Iran showcased photographs of Israel's nuclear facility that had been relayed by the drone.[145] Hezbollah Chief, Hassan Nasrallah, made a public statement following drone surveillance to Dimona by acknowledging that Hezbollah was responsible for this action and that the drone was designed in Iran and assembled in Lebanon.[146] From this point on, Hezbollah's drone program developed progressively over

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[143] Milton Hoenig, "Hezbollah And The Use Of Drones As A Weapon Of Terrorism," *Federation of American Scientists*, May 6, 2014, https://fas.org/publication/hezbollah-use-drones-weapon-terrorism/.
[144] Elizabeth Santoro and Avery Plaw, "Hezbollah's Drone Program Sets Precedents for Non-State Actors," *Terrorism Monitor* 15, no. 21 (November 2017): 4.
[145] Santoro and Plaw, "Hezbollah's Drone Program Sets Precedents for Non-State Actors," 4.
[146] Marc Daou, "Iran designed drone sent into Israeli airspace, Hezbollah says," *France24*, October 14, 2012, https://www.france24.com/en/20121014-hezbollah-nasrallah-acknowledges-iran-input-israel-drone-incident-lebanon-sunni-shiite-syria.

the years with Iranian assistance, which could be seen through continuous strikes towards Israel with its combat drones. The latest strike on 17 April 2024 successfully managed to hit a military facility in northern Israel with Hezbollah claiming the responsibility publicly.[147] This shows that by providing support in advancing Hezbollah's drone program, Iran was not only able to retrieve data intelligence on its main adversary in the region but it also gave Iran plausible deniability towards its culpability.

In contrast to Hezbollah, Hamas' drone arsenal has not received as much support from Iran, which would explain its drone program to be smaller and less advanced. Its drone program started in 2012 with its drone inventory comprised of only two types of UAVs with Iranian resemblance suitable for both combat and reconnaissance purposes, branded as Ababil-1 and Shehab. Both drones resembled Iranian's Sarir and Ababil respectively.[148] Although Hamas claimed that its drones are manufactured indigenously, Iran has provided knowledge transfer which enables local drone production in Gaza.[149] Apart from technical assistance, Iran has reportedly provided Hamas with financial aid as the Leader of Hamas, Ismail Haniyeh, stated that the group received approximately 70 million USD in 2022 for military assistance from Iran.[150] Hamas' attack on 7 October 2023 involving the use of its Al-Zouari suicide drones had confronted Israel unalert and surprised due to its complexity and coordination.[151] There is no clear indication whether Al-Zouari kamikaze drones are made of Iranian parts, however, Iran's support in Hamas' early UAV development and financial aid proved to have contributed to the current advanced drones that would likely continue to proliferate the use of UAVs by non-state actors.

Out of all Iranian proxies in the region, the Houthis remain the only proxy with the most advanced and diverse drone arsenal. According to the UNSC Report in 2018, the Qasef-1 combat UAV constitutes at least two Iranian-made components and is deemed to

[147] "Hezbollah launches missiles and drones at northern Israel," Aljazeera, April 17, 2024, https://www.aljazeera.com/news/2024/4/17/hezbollah-launches-missiles-and-drones-at-northern-israel.
[148] Andrew Hanna, "Iran's Drone Transfers to Proxies," *The Iran Primer*, June 30, 2021, https://iranprimer.usip.org/blog/2021/jun/30/iran%E2%80%99s-drone-transfers-proxies.
[149] Yaakov Lappin, "Hamas's UAV fleet bears the fingerprints of Iran," *JNS*, September 12, 2023, https://www.jns.org/israel-palestinianconflict/hamas/23/9/12/318080/.
[150] Joby Warrick, Ellen Nakashima, Shane Harris, Souad Mekhennet, "Hamas received weapons and training from Iran, officials say," *The Washington Post*, October 9, 2023, https://www.washingtonpost.com/national-security/2023/10/09/iran-support-hamas-training-weapons-israel/.
[151] Kerry Chávez and Ori Swed, "How Hamas innovated with drones to operate like an army," *Bulletin of the Atomic Scientists*, November 1, 2023, https://thebulletin.org/2023/11/how-hamas-innovated-with-drones-to-operate-like-an-army/.

be identical in the form of design, dimension, and capability of Iranian Ababil-T.[152] The acquisition of Qasef-1 is the beginning of Iran's continuous support towards bolstering the capacity of the Houthis through the transfer of new technology and advanced weaponry.[153] The Houthis' advanced drone program enabled the group to conduct several combat missions against Iran's adversary and the US ally, Saudi Arabia. A series of continuous drone strikes carried out by the Houthis targeted different Saudi assets including cities, tankers, oil-pumping stations, airports, airbases, oil and gas fields, military bases, and oil facilities between April 2019 and September 2019.[154]

Two particular drone strikes were conducted by the Houthis on sites holding the highest value for Saudi's economy, two major oil facilities run by Saudi Aramco. On 14 September 2019, the Houthis launched an attack against Abqaiq, the world's largest crude oil plant, and Khurais in Saudi Arabia.[155] The strike had cut out approximately 5,7 million barrels per day and caused global oil prices to spike up about 15 per cent along with global oil supply disruption.[156] The Houthis claimed responsibility for the attacks and acknowledged the use of ten UAV-X kamikaze drones on Saudi Aramco.[157] Despite the statement made by the Houthis, Saudi and the US accused Iran's involvement in the attacks, to which Iran's Foreign Ministry Spokesman, Abbas Mousavi, denied the false allegations that lack validity and called out the Saudi government to stop making groundless accusations and end the war in Yemen.[158]

However, the UN Panel Experts on Yemen released its annual report in January 2020 and confirmed that the Houthis continue to receive military support from Iran with the smuggling route to run overland from Oman and the Southern coast of Yemen towards

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[152] United Nations Security Council, *Letter dated 26 January 2018 from the Panel of Experts on Yemen mandated by Security Council resolution 2342 (2017) addressed to the President of the Security Council* (New York: UNSC, 2018), 32.

[153] Conflict Armament Research, *Iranian Technology Transfers to Yemen* (London: Conflict Armament Research Ltd, 2017), 2.

[154] "Timeline: Houthis' drone and missile attacks on Saudi targets," Aljazeera, September 14, 2019, https://www.aljazeera.com/news/2019/9/14/timeline-houthis-drone-and-missile-attacks-on-saudi-targets.

[155] "Saudi Arabia oil facilities ablaze after drone strikes," BBC, September 14, 2019, https://www.bbc.com/news/world-middle-east-49699429.

[156] Laila Kearney, "Oil jumps nearly 15% in record trading after attack on Saudi facilities," *Reuters*, September 17, 2019, https://www.reuters.com/article/us-global-oil/oil-prices-surge-15-after-attack-on-saudi-facilities-hits-global-supply-idUSKBN1W00UG/.

[157] "Houthi drone attacks on 2 Saudi Aramco oil facilities spark fires," Aljazeera, September 14, 2019, https://www.aljazeera.com/economy/2019/9/14/houthi-drone-attacks-on-2-saudi-aramco-oil-facilities-spark-fires.

[158] "Iran Dismisses 'Hackneyed' Saudi Accusations over Aramco Attacks," Tasnim News Agency, September 22, 2019, https://www.tasnimnews.com/en/news/2019/09/22/2101759/iran-dismisses-hackneyed-saudi-accusations-over-aramco-attacks.

Sana'a.[159] Even though it remains unclear whether the new UAV-X drone used for the Aramco attacks is of Iranian origin, the UN panel findings further prove that Iran has been supplying the Houthis with advanced weaponry and high-tech components that would allow the group to develop their own indigenous systems and carry out well-coordinated drone attacks against Iran's adversary.

The last Iranian proxy in the region that has benefitted from the usage of Iranian drones is the Iraqi militias. Iran-backed militias' drone inventory is comprised of both Iranian-made and Iranian components. First, the Oghab-1 is a lightweight drone with ISR purposes and manufactured by Farnas Pasargad, an Iranian company. Second, the Yasir is an ISR drone manufactured by the Iran Aviation Industries Organization and is similar to the Iranian Yasir. Lastly, the Basir-1 drone which is similar to the Iranian Ababil-3 and is suitable for both combat and reconnaissance purposes.[160] Iran's support towards Iraqi militias started in 2015 and this support was confirmed by a Badr Organization Leader, Muen al-Kadhimi, who stated that Iranian advisers in Iraq have contributed with tactics and provided paramilitary groups with drone and signal capabilities, including electronic surveillance and radio communications.[161]

Apart from conducting surveillance missions, Iraq militias have repeatedly operated drone strikes against US military bases in Syria, for example, the latest attack on a US base near Jordan's border with Syria in January 2024 was the first time a drone strike has killed US troops. The Iraqi militia claimed responsibility but the US condemned Iran for the action.[162] Despite numerous allegations thrown at Iran for being the culprit behind drone attacks operated by Iraqi militias, the Iranian Ministry of Foreign Affairs spokesman, Nasser Kanaani, reaffirmed that "As we have clearly stated before, the resistance groups in the region are responding to the war crimes and genocide of the child-killing Zionist regime and they do not take orders from the Islamic Republic of Iran."[163] Although Iran did not specifically order the strikes, there is no denying the lethality of

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[159] United Nations Security Council, *Letter dated 27 January 2020 from the Panel of Experts on Yemen addressed to the President of the Security Council* (New York: UNSC, 2020), 2–3.

[160] Andrew Hanna, "Iran's Drone Transfers to Proxies," *The Iran Primer*, June 30, 2021, https://iranprimer.usip.org/blog/2021/jun/30/iran%E2%80%99s-drone-transfers-proxies.

[161] Ned Parker, Babak Dehghanpisheh, Isabel Coles, "Special Report: How Iran's military chiefs operate in Iraq," *Reuters*, February 24, 2015, https://www.reuters.com/article/us-mideast-crisis-committee-specialrepor/special-report-how-irans-military-chiefs-operate-in-iraq-idUSKBN0LS0VD20150224/.

[162] Emily McGarvey, "Iran denies involvement in drone strike that killed three US troops," *BBC*, January 29, 2024, https://www.bbc.com/news/world-middle-east-68126137.

[163] "Iran denies involvement in drone attack that killed 3 US soldiers in Jordan," Aljazeera, January 29, 2024, https://www.aljazeera.com/news/2024/1/29/chk_irandeniesinvolvement-in-drone-attack-that-killed-3-us-troops-in-jordan.

Iraqi militia drones indicates that Iran continues to invest in bringing the militias' technological capabilities up to the advancement of other Iranian proxies such as Hezbollah and the Houthis.

The above explanation of Iran's involvement in supporting the development of drone programs by the Iranian proxies shows drones continue to play an important tool for Tehran to extend its influence and fulfil its strategic interest in the region. Both Hezbollah and Hamas used drone strikes against Israel. Meanwhile, the Houthis and Iraqi militias operated drones to attack Saudi Arabia and US bases in the Middle East. All of these targets serve a common interest for Iran as Israel, Saudi Arabia, and the US are all considered to be Iran's adversaries and are deemed to pose threats to the country's regime survival and interest in the region. Another important thing to point out is that extending support towards the Iranian proxies would allow Iran to enjoy political deniability against the accusations that were made following drone attacks.

5.3.3 Arms Export

Iran's drone proliferation did not stop inside the Middle East, especially having the capacity to produce its indigenous drones in low cost and high quantity, Iran has tried to extend its drone exports beyond the region. Several countries have received Tehran's drone capabilities including Venezuela, Sudan, Ethiopia, and Tajikistan, all of which will be explored further respectively.

Cooperation between Iran and Venezuela in the transfer of drone technology goes all the way back to 2007 when Tehran provided the Venezuelan government with assembly kits for the early generation of the Iranian Mohajer-2 surveillance drone.[164] Over the years, Venezuela can produce its own drones after receiving training from Iran. In June 2012, Venezuelan President, Hugo Chavez, stated that the drones were made locally in Venezuela and the military engineers had received prior training in Iran. Apart from the confirmation of military ties between these two states, Venezuela claimed that its drone project is not armed with weapons, only with a camera, referring to its drone production being specifically made only for defensive purposes.[165] Ten years after this claim, the upgraded Iranian Mohajer-2 combat drone identified as Antonio José de Sucre-

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[164] Michael Lipin, "Iran's Apparent Supply of Combat Drones to Venezuela Highlights Terrorism Risks," *VOA*, March 9, 2022, https://www.voanews.com/a/iran-s-apparent-supply-of-combat-drones-to-venezuela-highlights-terrorism-risks/6476585.html.

[165] Brian Ellsworth, "Venezuela says building drones with Iran's help," *Reuters*, June 14, 2012, https://www.reuters.com/article/idUSBRE85D14N/.

100 (ANSU-100) was shown in a military parade in July 2022 under the Presidency of Nicolás Maduro.[166] In the same year, Iran also reportedly transferred the more advanced Mohajer-6 combat drones to Venezuela with greater range and capabilities.[167] Due to the hostility of Venezuela and Iran with the US, drone knowledge and technology transfers by Tehran are increasingly seen as potential risks to encounter the US while at the same time extending Iran's proxy activities in South America.

Iran's drone activities did not stop in South America, it has also reached the African continent, especially in Sudan and Ethiopia. The first report of Iranian UAVs being used in the war in Darfur, Sudan, was back in September 2008.[168] The Iranian-made Ababil ISR drone branded as Zagil was shut down by the Sudan Liberation Movement Unity Command. The drone was used to conduct surveillance of the rebel groups and provide a target for air force bombers by the Sudanese Armed Forces. The UN Panel released a report in 2008 revealing that the firm behind drone sales to Darfur was Millennium Product Company LLC, with both the Sales Manager and Sales Director being Iranian nationals.[169] Iran's involvement in the Sudan conflict is portrayed as the country's strategy to have access to Port Sudan, which would provide Iran with more leverage over its interest in the Red Sea.[170]

Sharing a Northwestern border with Sudan, Ethiopia is among the countries in Africa that have acquired Iranian drones since 2021. Following the outbreak of the Tigray conflict, the Ethiopian National Defence Force has been using Iranian Mohajer-6 which can be used for both reconnaissance and combat purposes.[171] The drone ground control station spotted at Semera Airport has been able to retrieve information on the opposition's movements and operate Mohajer-6 combat drones to strike vehicles identified with its

[166] "Nicolás Maduro showed for the first time the Iranian combat drones assembled in Venezuela," Q24N, July 6, 2022, https://qcostarica.com/nicolas-maduro-showed-for-the-first-time-the-iranian-combat-drones-assembled-in-venezuela/.

[167] Emanuel Fabian, "Gantz claims Iran giving Venezuela attack drone know-how," *The Times of Israel*, February 2022, https://www.timesofisrael.com/gantz-accuses-iran-of-providing-venezuela-with-attack-drone-know-how/.

[168] "Iran violating arms embargo on Sudan: report," Sudan Tribune, September 4, 2008, https://sudantribune.com/article28464/.

[169] Louis Charbonneau, "Iranians linked to banned drone videos in Darfur-UN," *Reuters*, November 6, 2009, https://www.reuters.com/article/idUSN0611774/.

[170] Jonathan Campbell-James, "Curbing Outside Intervention in the Sudan War," *The Washington Institute*, April 4, 2024, https://www.washingtoninstitute.org/policy-analysis/curbing-outside-intervention-sudan-war.

[171] "Ethiopia suspected of using Iranian drones against Tigray rebels," The Arab Weekly, August 24, 2021, https://thearabweekly.com/ethiopia-suspected-using-iranian-drones-against-tigray-rebels.

guided Qaim glide bombs.[172] Iranian drones have been famously known to be cheap and combat-proven, both of these qualities combined would bring desirable capabilities in one neat package. The presence of Iranian drones in two countries on the African continent represents a significant move by Iran in building up its profile to become a growing global drone exporter.

In addition to transferring drones to other countries, Iran also shows its drone production capability by assisting other countries to develop their own drone manufacturing plant. A drone factory that would produce Iranian Ababil-2 combat drones in the capital of Tajikistan, Dushanbe, was inaugurated by Iranian Armed Forces Chief of Staff, Mohammad Bagheri, and Tajik Minister of Defense, Shirali Mirzo in May 2022.[173] The cooperation between Iran and Tajikistan is viewed by Tehran as an achievement whereby not only was the country able to fulfil its domestic needs for drones, but also "We can export military equipment to the allies and friendly countries in order to strengthen security and sustainable peace" as stated by Iranian Major General Bagheri.[174] It is noteworthy to mention that this marks the first time Iran has successfully launched an operational UAV production line in another country and the amount of support that Iran provided to other countries beyond the Middle East also indicates the importance of drones for Iranian military interest. From this perspective, it is clear that Iran's strategic intent is to help other countries produce their own drones and provide them with the knowledge or advanced technology under the rationale of deterrence which would give them power to the countries that rely on Iran's military assistance.

5.4 Iranian UAVs in the Russia-Ukraine War

Since the start of the unprovoked Russian invasion towards Ukraine in February 2022, the US sanctions have hampered Russia's ability to purchase Western components for its weapons to use in the war. The arms support from Washington and Ankara to Ukraine has caused Russia massive losses of its military hardware and forced the country to seek a way to restock its weapons arsenal. Meanwhile, Iranian UAVs have been known for its

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[172] Alex Gatopoulos, "How armed drones may have helped turn the tide in Ethiopia's war," *Aljazeera*, December 10, 2021, https://www.aljazeera.com/features/2021/12/10/how-armed-drones-may-have-helped-turn-tide-in-ethiopia-conflict.

[173] "Iran opens drone factory in Tajikistan," Tehran Times, May 17, 2022, https://www.tehrantimes.com/news/472704/Iran-opens-drone-factory-in-Tajikistan.

[174] "Iran Opens Military Drone Factory in Tajikistan," Tasnim News Agency, May 17, 2022, https://www.tasnimnews.com/en/news/2022/05/17/2712404/iran-opens-military-drone-factory-in-tajikistan.

combat-proven previously in many battlefields across the Middle East and beyond the region. Even though Iran is under international sanctions and arms embargoes, it has not stopped the country from continuing its proliferation by transferring its UAVs to their allies in dire need of military support. This is where the two countries, Russia and Iran, began their military cooperation in the war against Ukraine.

The initial plan that the Iranian government would send Russia its drones was made public in July 2022 by the US National Security Adviser, Jake Sullivan, informing the public about the potential arms transfers of several hundred Iranian drones to Russia and the probability that Russian forces would also receive military training in using the drone.[175] Following a statement from the US, the Spokesman of the Ministry of Foreign Affairs of the Republic of Iran, Nasser Kanani, clarified in the same month that the cooperation between Iran and Russia in the transfer of modern technologies had been carried on before the start of the war in Ukraine.[176] Two months after this statement, the Ukrainian Defense Ministry revealed on 13 September 2022 that it had shot down an Iranian Shahed-136 drone used by the Russian forces in Kharkiv, Ukraine.[177] Ever since this first revelation, swarms of Iranian drones have been used regularly by Russia to attack critical infrastructures across Ukraine. According to the Ukrainian President, Volodymyr Zelensky, it was estimated that Russia had acquired around 2,400 drones from Iran.[178]

Three types of the most commonly used Iranian drones that have been downed by the Ukrainian forces are the Shahed-131 (branded as Geran-1), Shahed-136 (Geran-2), and Mohajer-6.[179] Both Shahed-131 and Shahed-136 are loitering munitions or one-way attack drones which would detonate on impact. Meanwhile, Mohajer-6 could carry both attack and reconnaissance missions. In October 2022, Russia launched 30 Shahed-136 kamikaze drones over Kyiv where the drones hit residential buildings and killed four Ukrainians. Russia's drone attacks were also conducted regularly in three regions across Ukraine namely Kyiv, Sumy, and Dnipro, where they targeted critical infrastructures such

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[175] Matt Berg, "Iran preparing to send 'several hundred' drones to Russia, Sullivan says," *Politico*, July 11, 2022, https://www.politico.com/news/2022/07/11/iran-uav-drones-russia-00045195.

[176] "The History of Iran's Military Cooperation Dates Back to before the War in Ukraine," Fars News, July 12, 2022, https://www.farsnews.ir/news/14010421000668/.

[177] Ari Cicurel, *Russia Begins Using Iranian Drones Against Ukraine* (Washington DC: The Jewish Institute for National Security of America, 2022), 1.

[178] Ellie Geranmayeh and Nicole Grajewski, "Alone together: How the war in Ukraine shapes the Russian-Iranian relationship," *European Council on Foreign Relations*, September 6, 2023, https://ecfr.eu/publication/alone-together-how-the-war-in-ukraine-shapes-the-russian-iranian-relationship/.

[179] Defense Intelligence Agency, *Iranian UAVs in Ukraine: A Visual Comparison* (Washington DC: Defense Intelligence Agency Public Affairs, 2023), 4–13.

as stations and energy facilities.[180] The severe damage to Ukraine's power plant caused the civilians to live without electricity for heating or gas during the winter period.[181]

Although Russia deployed regular attacks towards Ukraine, one of the most intensive drone strikes happened in November 2023 when Kyiv was attacked with 75 kamikaze drones and damaged several residential buildings, a kindergarten, and energy infrastructure. Waves of strikes against the power plant had destroyed 40 per cent of Ukraine's energy capacity, forcing the country to conserve its electricity.[182] The recent attack on a power plant was targeted against the Zaporizhzhia nuclear power plant on 7 April 2024, including a direct strike on the reactor dome of Unit 6.[183] Although the drone strike did not cause major damage to the facility, the Director General of the IAEA, Rafael Mariano Grossi, was alarmed that such an attack represented a significant escalation of nuclear safety, increasing the security risk of nuclear accident on Europe's largest nuclear power plant.[184] Despite all the strikes, Ukraine was able to shut down the majority of drones as the success rate of destroying these weapons with its air defenses is relatively high between 50 per cent and 70 per cent.[185] From the start of the invasion in February 2022 until April 2024, it is estimated that the Ukrainian forces had successfully shut down 8,757 aerial surveillance and combat Iranian drones, with approximately 326 drones destroyed in March 2024 alone.[186]

Even though the success rate is considered high, Ukraine still has to face emerging threats from Russia on its drone production and deployment. In August 2023, a leaked document revealed by the Washington Post shows that Moscow is building a new drone factory in the Tatarstan region with Tehran's assistance to produce up to 6,000 drones by

[180] Dan Sabbagh, Charlotte Higgins, Samantha Lock, "'Kamikaze' drones hit Kyiv despite Putin's claim of no further strikes," *The Guardian*, October 17, 2022, https://www.theguardian.com/world/2022/oct/17/kyiv-hit-by-a-series-of-explosions-from-drone-attack.
[181] Emil Filtenborg, "Cheap Iranian Drones Used to Drain Ukraine's Defense Capacity," *Iran Wire*, May 22, 2023, https://iranwire.com/en/iran/116787-cheap-iranian-drones-used-to-drain-ukraines-defense-capacity/.
[182] Shaun Walker, "Russia launches most intensive drone attack since invasion began, says Ukraine," *The Guardian*, November 25, 2023, https://www.theguardian.com/world/2023/nov/25/russian-mass-drone-attack-injures-five-in-kyiv.
[183] Kelsey Davenport, "Drones Hit Zaporizhzhia Reactor Building," *Arms Control Association*, May 1, 2024, https://www.armscontrol.org/act/2024-05/news/drones-hit-zaporizhzhia-reactor-building.
[184] "Update 220 – IAEA Director General Statement on Situation in Ukraine," International Atomic Energy Agency, May 7, 2024, https://www.iaea.org/newscenter/pressreleases/update-220-iaea-director-general-statement-on-situation-in-ukraine.
[185] Uzi Rubin, "Russia's Iranian-Made UAVs: A Technical Profile," *RUSI*, January 13, 2023, https://www.rusi.org/explore-our-research/publications/commentary/russias-iranian-made-uavs-technical-profile.
[186] "Ukraine destroys over 300 Russian drones in March," The New Voice of Ukraine, April 1, 2024, https://english.nv.ua/nation/ukrainian-air-defenses-destroy-over-300-russian-drones-in-march-50406136.html.

2025. The facility is planned to manufacture a new and more advanced variant of Iranian Shahed-136 drones. Based on the document, the project would go through three main stages. The first stage would include Iran delivering up to 100 units per month of disassembled drones which would be reassembled in Alabuga, Russia. The second stage would entail the production of the airframes or bodies of the drones for up to 170-180 units per month which would be combined with Iranian-supplied engines and electronics. For the last stage, the factory is set to produce 226 drones per month and these drones must be delivered to the Russian Defense Ministry by September 2025.[187]

Not only would Iran provide assistance in helping Russia produce their own line of drones, but Tehran's drone development to Russia continues. Tehran introduced an upgraded version of Shahed-136, with a faster jet engine and twice the speed of the 136, which Iran branded as Shahed-238.[188] In the following months, around January 2024 Tehran had reportedly developed a new Shahed-107 combat drone for Moscow.[189] The new Shahed-107 is capable of surveillance and combat missions, can be launched from a vehicle, and has a range of 1,500 km. This drone is equipped with new technology to detect the UK and the US air defense systems deployed in Ukraine and has been tested by the Russian army at an airbase in central Iran.[190] The continuation of arms transfers and military cooperation between Russia and Iran could be interpreted that Moscow is running low on its own weapons stock. The intensification of Iran in supplying drones to Russia would mean that the war settings in Ukraine would continue to see the increasing presence of more lethal and advanced Iranian drones.

It is important to acknowledge the reason why Russia is drawn to purchasing more Iranian Shahed-136 drones and reproducing them with more advanced technology. First and foremost, there is no denying that Shahed-136 epitomises the revolutionary of war especially in the form of battlefield precision. The combination of low-cost commercial and dual-use technologies and components would make Shahed-136 a breakthrough

[187] Dalton Bennett and Mary Ilyushina, "Inside the Russian effort to build 6,000 attack drones with Iran's help," *The Washington Post*, August 17, 2023,
https://www.washingtonpost.com/investigations/2023/08/17/russia-iran-drone-shahed-alabuga/.
[188] Dan Sabbagh, "Deadly, cheap and widespread: how Iran-supplied drones are changing the nature of warfare," *The Guardian*, February 2, 2024, https://www.theguardian.com/world/2024/feb/02/deadly-cheap-and-widespread-how-iran-supplied-drones-are-changing-the-nature-of-warfare.
[189] Stanislav Pohorilov, "Iran develops new Shahed UAV for Russian attacks on high-value targets in Ukraine," *Ukrainska Pravda*, January 10, 2024,
https://www.pravda.com.ua/eng/news/2024/01/10/7436590/.
[190] Deborah Haynes, "'Explosive' new attack drone developed by Iran for Russia's war in Ukraine," *Sky News*, January 10, 2024, https://news.sky.com/story/explosive-new-attack-drone-developed-by-iran-for-russias-war-in-ukraine-13045093.

weapon in achieving high precision quality with affordability. In the past, Russia had historically used long-range, pinpoint precision cruise missiles in Syria. However, precision weapons have been known to cost quite a fortune. Forbes Ukraine released a report on the estimation of the cost of the launch of Russian missiles on Ukrainian soil. The type of Russian missiles deployed in Ukraine and their cost counting per unit are calculated as follows: X-101 missile (USD 13 million), Kalibr (USD 6,5 million), Iskander (USD 3 million), Onyx (USD 1,25 million), X-22 (USD 1 million), OTR-21 Tochka (USD 0,3 million). It was estimated that Russia had spent approximately USD 7,5 billion in the first two months of the invasion after firing more than 1,300 missiles towards Ukraine.[191]

Due to the price of each unit, it would make more sense that Russia has limited its stockpiles of missiles and seeks an alternative for more cost-friendly weapons but has the ability to deliver precision quality equal to its strategic cruise missiles. In comparison to the cost of Russia's cruise missiles, each unit of Shahed-136 costs roughly USD 20,000. However, Russia is likely to pay more than the reported number. According to Kyiv Independent, Russia and Iran reached an agreement for each Shahed-136 to cost USD 193,000 if Russia ordered in a 6,000 batch or USD 290,000 in a 2,000 batch.[192] As of February 2024, Russia had fired up to 4,637 Shahed drones over Ukraine since the start of the invasion, as stated by the Spokesman for the Air Force of the Armed Forces of Ukraine.[193] Based on this statement, it is more likely that Russia paid around USD 193,000 for each unit of Shahed-136. Taking into account the financial side, it explains why Shahed-136 is more appealing to Russia than deploying its indigenous cruise missiles which would cost much more. Another important thing to point out is that Russia seeks to deploy its weapons to sustain its combat by overwhelming Ukraine's air defense systems. Therefore, quantity matters equally with quality. In order to be able to wage the war for a long period of time, Russia relies on Iran to obtain key components and technical assistance in manufacturing Iranian drones in larger quantities.

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[191] Volodymyr Landa and Konstantin Gnenny, "Росіяни за пів доби випустили ракет по Україні на $400–700 млн. Інфографіка Forbes," *Forbes*, October 10, 2022, https://forbes.ua/war-in-ukraine/rosiyani-za-pivdobi-vipustili-raket-po-ukraini-na-400-800-mln-infografika-forbes-10102022-8899.
[192] Asami Terajima, "Explainer: Iran's cheap, effective Shahed drones and how Russia uses them in Ukraine," *Kyiv Independent*, April 17, 2024, https://kyivindependent.com/explainer-irans-cheap-effective-shahed-drones-and-how-russia-uses-them-in-ukraine/.
[193] Julia Shramko, "Since the beginning of the invasion, Russia has fired over 8000 missiles and 4637 Shahed drones at Ukraine - Ihnat," *UNN*, February 22, 2024, https://unn.ua/en/news/since-the-beginning-of-the-invasion-russia-has-fired-over-8000-missiles-and-4637-shakhty-at-ukraine-ignat.

In light of physical evidence already published numerous times by the media in regard to the shared similarity of components and engine parts between Russian and Iranian drones, Tehran has repeatedly denied its involvement in the war in Ukraine. The Ministry of Foreign Affairs of Ukraine also released an official statement in October 2022 recognising the use of Iranian kamikaze drones against Ukrainian cities and calling out Iran as Russia's accomplice in war crimes and terrorist acts against Ukraine.[194] Following this statement, the Iranian Foreign Ministry Spokesman, Nasser Kanaani, rejected the claim and responded that such accusations were based on false information and spiteful assumptions as Iran stressed its active neutrality in the war.[195] Interestingly, the next month the Iranian Foreign Minister, Hossein Amirabdollahian, made a public statement for the first time acknowledging that Iran had sold "a limited number of drones to Russia months and before the war in Ukraine."[196] Despite this statement, Ukrainian forces continue to see the strikes of Iranian drones firing up against their air defenses systems with the number of drones being shot down counting up to thousands.

For a country that is already under heavy sanctions from the international community, Iran has to face more sanctions concerning its drone transfer to Russia. Britain, France, and Germany or the E3 formally urged the UN to investigate the alleged drone transfer between Iran and Russia as the act would constitute a violation of the UNSC 2231.[197] Apart from the E3, the EU released an official statement in October 2022 condemning the delivery of Iranian drones to Russia and sanctioning three Iranian individuals and one Iranian entity for their role in this illicit transfer.[198] In July 2023, the Council of the EU established a dedicated framework through Council Decision (CFSP) 2023/1532 of 20 July 2023 towards Iran in the form of restrictive measures which include

[194] "Statement of the Ministry of Foreign Affairs of Ukraine regarding Iran's Complicity in Russia's Crimes against Ukraine," Ministry of Foreign Affairs of Ukraine, October 17, 2022, https://mfa.gov.ua/en/news/zayava-mzs-ukrayini-shchodo-spivuchasti-iranu-v-zlochinah-rosiyi-proti-ukrayini.

[195] "Iranian foreign ministry spokesman reacts to some claims about shipment of arms including military drones by Iran to Ukraine," Ministry of Foreign Affairs of the Islamic Republic of Iran, October 18, 2022, https://en.mfa.ir/portal/newsview/696898/Iranian-foreign-ministry-spokesman-reacts-to-some-claims-about-shipment-of-arms-including-military-drones-by-Iran-to-Ukraine.

[196] Maziar Motamedi, "Iran confirms drones to Russia but 'months' before Ukraine war," *Aljazeera*, November 5, 2022, https://www.aljazeera.com/news/2022/11/5/iran-confirms-drone-sales-to-russia-but-months-before-the.

[197] Michelle Nichols, Humeyra Pamuk, Arshad Mohammed, "E3 seeks U.N. to probe Russia's alleged use of Iranian drones," *Reuters*, October 21, 2022, https://www.reuters.com/world/e3-seeks-un-probe-russias-alleged-use-iranian-drones-2022-10-21/.

[198] "Ukraine: EU sanctions three individuals and one entity in relation to the use of Iranian drones in Russian aggression," Council of the European Union, October 20, 2022, https://www.consilium.europa.eu/en/press/press-releases/2022/10/20/ukraine-eu-sanctions-three-individuals-and-one-entity-in-relation-to-the-use-of-iranian-drones-in-russian-aggression/.

travel bans for Iranian individuals, an asset freeze for six Iranian individuals and five entities, and a prohibition on making funds or economic resources available based on the list.[199] Washington also strongly condemns Iran for their involvement in the war in Ukraine and added several Iranian companies to the list of US sanctions for engaging in activities related to the development, procurement, and proliferation of UAVs. Some prominent Iranian companies include Qods Aviation, Shahed Aviation, and Shahed Aviation Industries Research Center to name a few.[200]

These added sanctions by the West are being imposed due to Iran's violation of the UNSCR 2231. Under the resolution, any sale, supply, or transfer to or from Iran of items controlled by the Missile Technology Control Regime (MTCR), including Iranian UAVs, is prohibited.[201] However, the limits imposed by the UNSC expired during the JCPOA Transition Day on 18 October 2023 which means that arms embargoes on Iran had been lifted, allowing Tehran supposedly to conduct conventional arms transfers including its UAVs.[202] In response to the expiration of UN restrictions, according to the Arms Control Association, around 48 states issued a statement coordinated through the Proliferation Security Initiative, stressing the urgency that Iran's UAV technology transfers "endangers international stability and escalates regional tension."[203]

Indeed, the concern extends to the West to maintain its sanctions towards Iran. The EU released a statement that the Council decided to retain its restrictive measures on conventional arms embargoes under the EU non-proliferation regime on Iran.[204] Meanwhile, Britain, France, and Germany confirmed that the UN sanctions will be transferred into domestic sanctions regimes and the UK will maintain its sanctions beyond

[199] Council of the European Union, *Council Decision (CFSP) 2023 /1532 of 20 July 2023* (Brussels: Council of the European Union, 2023), 2–14.

[200] Bureau of International Security and Nonproliferation, "Guidance to Industry on Iran's UAV-Related Activities," *U.S. Department of State*, June 9, 2023, https://www.state.gov/guidance-to-industry-on-irans-uav-related-activities/.

[201] United Nations Security Council, *Resolution 2231 (2015)* (New York: United Nations Security Council, 2015), 100.

[202] William Alberque, Fabian Hinz, Zuzanna Gwadera, "IISS experts on the expiry of UN limitations on Iran's missile exports," *IISS*, October 24, 2023, https://www.iiss.org/en/online-analysis/missile-dialogue-initiative/2023/10/iiss-experts-on-the-expiry-of-un-limitations-on-irans-missile-exports/#:~:text=Restrictions%20on%20conventional%20arms%20transfers,will%20expire%20in%20October%202025.

[203] Kelsey Davenport, "UN Missile Sanctions on Iran Expire," *Arms Control Association*, November 1, 2023, https://www.armscontrol.org/act/2023-11/news/un-missile-sanctions-iran-expire.

[204] "Iran: Council maintains restrictive measures under the non-proliferation sanctions regime after the JCPoA Transition Day," Council of the EU, October 17, 2023, https://www.consilium.europa.eu/en/press/press-releases/2023/10/17/iran-council-maintains-restrictive-measures-under-the-non-proliferation-sanctions-regime-after-the-jcpoa-transition-day/.

the October deadline.[205] Additionally, the US imposed new sanctions on 11 individuals, eight entities, and one vessel that supports Iran's destabilizing UAV programs and reiterated its commitment to counter threats posed by the proliferation of Iranian drone activities despite the expiration of UNSCR 2231.[206] Notwithstanding the reactions from the West, Iran's Ambassador and Permanent Representative to the UN, Amir Saeed Iravani, reaffirmed in May 2024 that any claim by the West regarding Iran's drone involvement in Ukraine is "completely unfounded and categorically rejected."[207]

Sanctions are not something foreign to Iran, the country has already lived under heavy sanctions since 2005 by the EU, UN, and the US due to issues revolving around its nuclear programme. For many years, heavy sanctions have caused unemployment and inflation rates to skyrocket, isolate Iran from the international financial system, and curtail its oil revenue, all of these contributing to Iran's devastating economy.[208] Despite this fact, it did not discourage Tehran from transferring its drones and engaging in joint production through knowledge-sharing and technical assistance to Russia in its aggression towards Ukraine. Iran is well aware of the state that they put themselves in if the country decides to take part in the Russia-Ukraine war with the majority of the world leaders supporting Ukraine, leaving Russia in isolation. Furthermore, Iran's involvement in the war would result in further sanctions by the West and eliminate the chance to revive Iran's nuclear deal. All of these negative consequences attest that Iran's military support to Russia is not without costs. Thus, it is imperative to understand beyond the adverse impact on Iran. The underlying strategic implications gained from this cooperation reflect the fulfilment towards Iran's national and security interests.

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[205] "UK to bring UN sanctions on Iran into UK law," FCDO, September 14, 2023, https://www.gov.uk/government/news/uk-to-bring-un-sanctions-on-iran-into-uk-law#:~:text=The%20UK%2C%20France%20and%20Germany,sanctions%20beyond%20the%20October%20deadline.&text=The%20UK%20has%20today%20committed,in%20October%20into%20UK%20law.

[206] "Treasury Sanctions Actors Supporting Iran's Missile and UAV Programs," U.S. Department of the Treasury, October 18, 2023, https://home.treasury.gov/news/press-releases/jy1820.

[207] "Iran's UN Envoy: Tehran's neutrality position in Ukraine conflict unchanged," Islamic Republic News Agency, May 16, 2024, https://en.irna.ir/news/85479645/Iran-s-UN-Envoy-Tehran-s-neutrality-position-in-Ukraine-conflict.

[208] Zachary Laub, "International Sanctions on Iran," *Council on Foreign Relations*, July 15, 2015, https://www.cfr.org/backgrounder/international-sanctions-iran.

Chapter 6: Discussion

This chapter will present the answer to the research question which delves into the strategic implications for Iran in transferring its UAVs to Russia in Ukraine from two different theoretical perspectives, security dilemma and conventional deterrence. The first part will explain the military gain for Iran through its military cooperation with Russia from the perspective of the security dilemma, whereby procurement of more advanced arms is viewed as providing national security, leading to the inevitable arms race. The second part will explain UAVs as a tool for conventional deterrence for Iran based on three components by Haffa Jr. which will determine the capability and credibility of Iranian deterrence. These three components include the visibility of the Iranian military force, past willingness to use force, and rationality of the use of force.

6.1 Security Dilemma: Military Cooperation

For many years, the presence of advanced Western technologies in the Middle East has caused concerns for Iran's security interests. Most specifically, the arms support from the US, the UK, and France towards Israel, Saudi Arabia, and the UAE. This would drive Iran to set out its military objectives towards developing its air defense and ballistic missiles. Against this backdrop, Iran aims to become a modern military power with technological advancements. Although Iran's ballistic missile arsenal is considered to be the most diverse and one of the most advanced in the region, meanwhile its conventional air force is relatively behind and outdated.

The lack of advancement of its air fleet contributes to insecurity for the Iranian military in countering external threats. From the perspective of the security dilemma, the more a state values their security above anything else, the more likely the country would seek ways to procure more advanced arms both in quality and quantity. One of the ways a state could meet its security requirement condition to be able to face its adversary is through mutual cooperation with its trusted ally which would result in a direct military gain. In correlation with the context of Russia's war in Ukraine, providing military support to Moscow would mean that Iran could have the chance to improve its cooperation with one of the world's leaders in military technology. Notwithstanding the fact that both countries are under heavy arms embargoes and isolated from the international community, thus their cooperation is seen as the logical solution to benefit from each other.

Long before the start of Russia's invasion of Ukraine, Iran had requested to buy Russian S-400 missile defense systems with the ability to engage targets at ranges of up to 400 km. However, Putin rejected Tehran's request in 2019 with a concern that the sale of the missile systems would fuel tensions between Iran and the regional powers, Saudi Arabia and Israel.[209] Understanding that even though Russia and Iran had steadily tightened their bilateral relations in recent years, Iran had to find another way to improve its military cooperation, ensuring that this time Moscow would no longer refuse another arms deal with Tehran. Eventually, Russia's need for Iranian drones paved the way for Tehran to increase its strategic partnership in the domain of defense and military cooperation.[210] There are three noteworthy procurements pursued by Iran in return for providing Russia with extensive drone supply: the Su-35 fighter, the Mi-28 attack helicopter, and the Yak-130 light-attack jet aircraft, each of which would be explained respectively.

In the past, Iran has been in negotiation to purchase Russian Su-30 fighters since 2016 but this deal was never successful.[211] Following the use of Iranian drones by Russian forces in Ukraine, the Commander of the Iranian Army's Air Force, Brigadier General Hamid Vahedi, confirmed in September 2022 that purchasing Sukhoi Su-35 fighter jets from Russia is on the air force's agenda.[212] Later on, the Iranian Parliament's National Security and Foreign Policy Commission, Shahriar Heidari, noted in January 2023 that Iran would receive 24 of the fourth-generation twin-engine Su-35 fighter jets with super-maneuverable capability which are primarily used for air superiority missions.[213] Arrangements regarding the delivery of the jets were finalised in December 2023[214] and

[209] Bloomberg, "Russia Rejected Iran S-400 Missile Request Amid Gulf Tension, Officials Say," *The Moscow Times*, May 31, 2019, https://www.themoscowtimes.com/2019/05/31/russia-rejected-iran-s-400-missile-request-amid-gulf-tension-officials-say-a65818.

[210] James Phillips and Peter Brookes, *Undermining Joint Russian–Iranian Efforts to Threaten U.S. Interests* (Washington DC: The Heritage Foundation, 2023), 2–3.

[211] Ephraim Kam, "Iran's Deterrence Concept," *Strategic Assessment* 24, no. 3 (July 2021): 25.

[212] "Iran Confirms Bid To Buy Russian Su-35 Fighter Jets," Iran International, September 5, 2022, https://www.iranintl.com/en/202209052803.

[213] "Iran to Receive Russian Sukhoi Su-35 Jets in Spring: MP," Tasnim News Agency, January 15, 2023, https://www.tasnimnews.com/en/news/2023/01/15/2837209/iran-to-receive-russian-sukhoi-su-35-jets-in-spring-mp.

[214] "Deal Done, Iran to Get Mil Mi-28 Chopper, Sukhoi Su-35 Jet," Tasnim News Agency, November 28, 2023, https://www.tasnimnews.com/en/news/2023/11/28/2996773/deal-done-iran-to-get-mil-mi-28-chopper-sukhoi-su-35-jet#:~:text=Speaking%20to%20Tasnim%2C%20Deputy%20Defense,of%20the%20Iranian%20Armed%20Forces.

the first delivery is expected to arrive in 2024.[215] The success of acquiring this major deal is considered to be beneficial for Iran which had initially ordered its predecessor, the Su-30, as the country would receive its more advanced version of the fighter jets.

The long-awaited Su-35 fighter jets would signify a great improvement for the country's air fleet for two main reasons. First and foremost, the Sukhoi Su-35 is one of the most powerful fighters and the most advanced type of Russia's Flanker Family fighters. The ability to carry a wide range of air-to-air and air-to-ground weapons allows the fighter jets not only to conduct air combat missions but also to operate against targets on the ground and sea.[216] The Su-35 is also equipped with a powerful L175M Khibiny electronic countermeasure system to distort radar waves and misdirect hostile missiles, a robust capability in preventive strike scenarios against stealth aircraft.[217] In combination with the Iranian Bavar-373 air defense missile system, the Su-35 would provide Iran with a deadly deterrent. Any adversary that would attempt to attack or surveil Iran's nuclear programme or its military activities would encounter difficulties if Tehran were to use anti-stealth missile defense in support of Su-35 combat air patrols.

The second reason is the new and advanced fighters would replace Iran's old fighter jets dating back from the Cold War. For the past 30 years, the Iranian air force inventory involves a limited type of air jets including the Soviet Union's Mig-29s from the 1990s and the US fighter jets of F-14, F-5, and F-4 from the 1970s.[218] Not to mention that several Iranian fighter jets had crashed repeatedly in the past. For example, there were three reported crashes of Iranian F-5 fighter jets between 2018-2022 and a reported crash of Iranian Mig-29 in December 2019, all of the incidents were due to technical issues.[219] Therefore, the acquisition of Su-35 would certainly modernize Iran's air force capabilities and complement its air defense power along with Iranian missiles and drones.

[215] Paul Iddon, "Iran Might Receive Its First Su-35 Flanker Fighters From Russia Next Week," *Forbes*, April 20, 2024, https://www.forbes.com/sites/pauliddon/2024/04/20/iran-might-receive-its-first-su-35-flanker-fighters-from-russia-next-week/.

[216] "What effect does receiving Su-35 have on Iran's air power and regional equations?," Tehran Times, January 23, 2023, https://www.tehrantimes.com/news/481193/What-effect-does-receiving-Su-35-have-on-Iran-s-air-power-and.

[217] Sebastien Roblin, "Russia's Su-35 Is a Real Killer (Enough to Be Considered the Best Dogfighter Available?)," *The National Interest*, July 30, 2021, https://nationalinterest.org/blog/reboot/russia%E2%80%99s-su-35-real-killer-enough-be-considered-best-dogfighter-available-190723.

[218] Syed Zulfiqar Ali, "Su-35 and UAV Defence Contract between Russia and Iran," *Centre for Strategic and Contemporary Research*, September 30, 2022, https://cscr.pk/explore/themes/defense-security/su-35-and-uav-defence-contract-between-russia-and-iran/.

[219] Paul Iddon, "Iran's Vintage Fighter Jets Keep Falling Out Of The Sky," *Forbes*, May 29, 2022, https://www.forbes.com/sites/pauliddon/2022/05/29/irans-vintage-fighter-jets-keep-falling-out-of-the-sky/?sh=526403bd560d.

Not only did the Iranian government confirm that the country would receive new fighter jets in November 2023, but also the Russian Mi-28 attack helicopter branded as the Night Hunter.[220] Taking into account the need to upgrade the Iranian Air Force, helicopters are not an exception. The majority of Iran's helicopter inventory consists of US-made helicopters which were acquired before the 1979 revolution, such as Bell 206, Bell 212, Bell 214, Sikorsky SH-3 Sea Kings, RH-53D Sea Stallions, and Boeing CH-47 Chinooks. Iran also operates Russian Mi-24s attack helicopter which was produced in 1972.[221] These old helicopters comprised of different types faced significant maintenance and parts supply challenges due to international sanctions, which have affected their performance and operations. The inability of the Iranian government to import foreign parts or new aircraft has caused Iran's aviation industry to face years of neglect, underinvestment, and a significant increase in air crashes.[222]

One of the most fatal accidents involving Iran's outdated helicopters took place recently on 20 May 2024 when a helicopter crash killed the Iranian President, Ebrahim Raisi, Foreign Minister, Hossein Amirabdollahian, and several Iranian senior officials in Iran's northern border with Azerbaijan.[223] The helicopter that crashed was a Bel 212 from the 1970s and as of May 2024, the investigation by the General Staff of Armed Forces is still ongoing to determine the cause of the accident.[224] Nevertheless, an upgrade of Iran's helicopter fleet is considered to be necessary considering that its current inventory is already decades old. As for Mi-28 capabilities, the Night Hunter is a combat helicopter capable of striking targets in all weather conditions, equipped with a unique overhead radar, new engines, a control system, and a modern anti-aircraft defense system.[225] This upgrade would also provide Iranian defense technological and industrial base on important engine and sensor technology through the acquisition of the Russian Mi-28.

[220] "Iran confirms acquisition of Russian Mi-28, Su-35, Yak-130 aircraft," Russian News Agency, November 28, 2023, https://tass.com/defense/1713027.

[221] Yavuz Aydin and Tugba Altun, "Iran's helicopter fleet under scrutiny after fatal crash," *Anadolu Agency*, May 25, 2024, https://www.aa.com.tr/en/middle-east/iran-s-helicopter-fleet-under-scrutiny-after-fatal-crash/3230080.

[222] Kourosh Ziabari, "Iran's Aviation Industry Is in Dire Straits," *Gulf International Forum*, March 14, 2023, https://gulfif.org/irans-aviation-industry-is-in-dire-straits/.

[223] Scott Neuman, "What might have caused the helicopter crash that killed Iran's president," *Wisconsin Public Radio*, May 21, 2024, https://www.wpr.org/news/what-might-have-caused-the-helicopter-crash-that-killed-irans-president.

[224] "Probe Finds No Evidence of Sabotage in Fatal Crash of Iranian President's Helicopter," Tasnim News Agency, May 30, 2024, https://www.tasnimnews.com/en/news/2024/05/30/3095537/probe-finds-no-evidence-of-sabotage-in-fatal-crash-of-iranian-president-s-helicopter.

[225] ""Night Super Hunter" Mi-28NM successfully tested in Syria," Izvestia, June 17, 2019, https://iz.ru/889578/2019-06-17/nochnoi-superokhotnik-mi-28nm-uspeshno-ispytan-v-sirii.

The last military procurement that Iran would receive is the Russian Yak-130 trainer jet. Contrary to the Su-35 and the Mi-28 which are both yet to be delivered, the Iranian Air Force had released images revealing the delivery of Russian Yak-130 advanced jet trainers in September 2023.[226] The Yakovlev Yak-130 is a subsonic two-seat jet trainer and light combat aircraft developed by Russia's Yakovlev and Aermacchi.[227] The delivery of the Yak-130 could be seen as a serious move by Russia in the preparation of establishing a bigger arms deal with Iran, including the Su-35. The Yak-130 is likely to be used by the Iranian Air Force to train its pilots for Su-35 jets as these trainer jets serve as suitable platforms for advanced pilot training. Additionally, these jets provide a cost-effective way to train pilots in various flight manoeuvres and combat scenarios, assisting them with the necessary skills before operating high-performance Su-35 fighter jets.[228]

There is no denying that the military gains from its cooperation with Russia would certainly alter the balance of power over Iranian airspace. The acquisition of Su-35 fighter jets, Mi-28 attack helicopters, and Yak-130 trainer jets would equip the Iranian Air Force with advanced military technology which could be used as a powerful deterrent against its adversaries. It is also important to note that possessions of these new advanced military weapons from Russia would provide Iran with more than the aircraft itself, but also bring the technology to Iranian engineers and technicians to use it for the country's advantage. The growth of Iran's military presence in missile and UAV development cannot be separated from the past experience of reverse engineers in the early years of its development from captured foreign missiles and drones used against Iran in past conflicts. Thus, this arms trade could signify a potential for Iran to enhance its air force in order to be able to develop its own line of advanced aircraft and fighter jets.

6.2 UAVs as a Tool for Conventional Deterrence

In addition to modernising Iran's military technology, this strategic partnership with Russia also provides Iran with its capacity to use UAVs as a tool for conventional deterrence. By supporting Russia in the war against Ukraine, Iran has been able to utilise

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[226] "Yak-130 training aircraft imported into Iran," Mehr News Agency, September 2, 2023, https://en.mehrnews.com/news/205489/Yak-130-training-aircraft-imported-into-Iran.

[227] "Iran Gets Yak-130 Jet Trainer," Tasnim News Agency, September 2, 2023, https://www.tasnimnews.com/en/news/2023/09/02/2950839/iran-gets-yak-130-jet-trainer.

[228] "The Significance and Motivations Behind Russia's Sale of Yak-130 Jets to Iran," Rasanah, September 19, 2023, https://rasanah-iiis.org/english/monitoring-and-translation/reports/the-significance-and-motivations-behind-russias-sale-of-yak-130-jets-to-iran/.

its drone force with global reach and power projection capacity in obtaining and reserving the capability and credibility of its conventional deterrent. Three components by Haffa Jr. will be analysed to understand the credibility and capability of UAVs as Iran's conventional deterrent. This includes the visibility of Iranian military force, the willingness to use force, and the rationality of the use of force.

6.2.1 Visibility of Iranian Military Force

For many years, the presence of heavy sanctions and several key events such as the withdrawal of the US from the JCPOA in 2018, the death of Iranian General Qasem Soleimani by the US in 2020, and Israel's attacks on Iran's Natanz and Karaj nuclear facilities in 2021 as well as on Iran's military base in February 2022, have severely undermined Iran's security. As a result, the Iranian government scaled up its drone development and deployment against its adversaries to prevent further attacks and secure its national security. In this case, setting up a high standard for the strategy of conventional deterrence is needed. Iran must ensure that the cost and risk of provoking hostile actions towards the country outweigh the benefits that its adversary is seeking.

One of the critical elements of conventional deterrence is the recognition of a significant military force. Iran needs to maintain some form of military visibility for its deterrent to be perceived as credible and capable. In other words, the Iranian government need to ensure that the existence of its drone capabilities is seen by its intended adversaries. For this reason, the deployment of Iranian drones in the war in Ukraine serves as a significant power projection for Iran to inform its adversaries, the US and Israel, and the E3 that Tehran has become a combat drone supplier to the world's second-largest arms exporter, Russia. Over the years, Iran has portrayed its drone programme as a powerful political symbol in the form of legitimacy and prestige for the Iranian regime. This attempt made sense seeing the current impressive scale of the Iranian drone arsenal with a variety of types and ranges.

In the pursuit of Iran's effort to polish its image and prestige over its drone programme, the transfers of Iranian drones to Russia aimed to display its strength throughout the region by using the most sophisticated military technology, even under international sanctions imposed on it as well as arms embargoes.[229] The prestige of Iranian drones has been reaffirmed by the Iranian Supreme Leader, Ali Khamenei, in a meeting

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[229] Bashir, "The Iranian Drone Program," 35.

with Iranian academics on 19 October 2022, whereby he clearly stated that "As for Iran's building of advanced missiles and drones, which just a few years ago people were saying were photoshopped. Now they are calling the Iranian drones very dangerous. They are asking, why are you (Iran) selling and giving them to others? Well, this is an achievement of the Iranian elite, it is an honour for the country."[230] This statement was made one month after the first discovery of the use of Iranian drones in Ukraine and further encouraged the importance of showcasing its advanced drone capabilities as well as how much Iran values its drone programme.

However, it is worth mentioning that Iran was not the only country involved in transferring drones in the war in Ukraine. Iran's neighbour in the region, Türkiye has reportedly provided its Turkish TB2 combat drones to Ukrainian forces. Despite the presence of the infamous TB2 in the war, the extensive use of Iranian Shahed-136 has caused the reputation and credibility of Turkish drones to be questioned and overshadowed in the media.[231] One year later, during the 1402 Joint Drone Exercise on 3 October 2023 involving around 200 different drones from the Iranian Armed Forces, Brigadier General Alireza Sheikh referred to the country's drone technology as "institutionalised knowledge and the Iranian armed forces as a power in the world."[232] The use of Iranian drones in the battlefield of Ukraine would not only shed light on the technological advancement of Iran's military but also on the emergence of Iran as a drone power in the world.

According to Chairman of the Chiefs of Staff of the Iranian Armed Forces, Major General Mohammad Baqeri, Iran is among the world's top five drone powers and in the same statement he praised the collected efforts from the armed forces, academic institutions, and knowledge-based companies in increasing Iran's drone strength.[233] There is no denying that Iran has made a remarkable breakthrough in manufacturing a broad range of indigenous drones which contributes to the country's military self-sufficiency. Iran's involvement in the war against Ukraine further amplifies its drone power and

[230] "Iranian Supreme Leader Ali Khamenei: 'Now They [Westerners] Are Calling The Iranian Drones Very Dangerous' And Asking 'Why Are You Selling Them And Giving Them To Others? Well, This Is An Achievement Of The Iranian Elite – It Is An Honor For The Country'," MEMRI, October 26, 2022, https://www.memri.org/reports/iranian-supreme-leader-ali-khamenei-now-they-westerners-are-calling-iranian-drones-very.
[231] "Iran's transformation into a drone superpower in the world / left behind the Islamic Republic of Turkiye," Student News Network, November 30, 2022, https://snn.ir/fa/news/1044212/.
[232] "Iran's Army begins massive '1402 Joint Drone Exercise'," Iran Press, October 3, 2023, https://iranpress.com/-iran-s-army-begins-massive-1402-joint-drone-exercise.
[233] "Iran among world's top five drone powers: Senior general," Al Mayaaden, December 26, 2022, https://english.almayadeen.net/news/politics/iran-among-worlds-top-five-drone-powers:-senior-general.

capabilities to the international community, especially towards its adversaries. Russia's aggression towards Ukraine has been condemned and resulted in sanctions by the UN, the EU, the US, and the E3, making the battlefield a spotlight in the news for the past few years. This would make an excellent opportunity for the lethality of Iranian drones to be covered by numerous media channels all over the world. Besides increasing its media presence, Iran has been relying on forward presence rather than forward deployment. This way, by deploying its robust supply of combat and ISR drones to Russia around the war in Ukraine, Iran can credibly signal to its adversaries that Tehran has the capacity to respond to any potential hostile actions or aggressions and thus signify that the opponent will not be able to achieve a quick conventional victory simultaneously against Iran.

While increasing the profile of the UAV programme, the use of Iranian drones in Ukraine's battlefield also provides the space for Iran to assess the functionality of these weapons. As Iran also obtains financial gains from the sale of its drones and considers its UAV as a substitute for the country's outdated air force, it is critical for Iran to ensure that these weapons are functional. Testing these drones in combat and surveillance missions would give Iran real insight and feedback on the performance of the weapons.

In addition to gaining information regarding the strong and weak points of its drone capabilities, the Iranian defense technological and industrial base would also benefit from access to a giant database obtained from combat operations.[234] Mainly since Ukraine had received extensive military support from Western countries including the US, Germany, the UK, Denmark, the Netherlands, Poland, Sweden, France, Canada, and Finland. The presence of sophisticated Western military weapons in Ukraine would enable Iran to gain valuable information about these weapons, which include air defense systems such as the Patriot missile system and Starstreak from Britain, artillery and missiles such as Scalp from France, Storm Shadow from Britain, and ATACMS from the US.[235]

Additionally, the information acquired from these Western arms could enable Iran to further enhance its drone capabilities and better understand how to get past the West's air defense system. This is important not merely for opening up space for improvement of the weapons, but also to sustain the visibility of Iran's drone power. Assessing the drone capabilities in combat zones and analysing the West's military weapons would enable Iran

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[234] Kasapoglu, *How the War in Ukraine Shapes Iran's Strategic Gains and Ambitions*, 2.
[235] "Ukraine weapons: What arms are being supplied and why are there shortages?," BBC, May 14, 2024, https://www.bbc.com/news/world-europe-62002218.

to identify the vulnerability of its drones during operations against the opponent, which is a critical lesson to boost its lethality and maintain its drone presence for other and future battlefields by extension.

As the Iranian government had reached the point of military self-sufficiency in its drone arsenal, this would allow Iran also to use its involvement in the Russia-Ukraine battlefield to project producing capacity. It means that Tehran has a high resilience in producing a large number of indigenous drones, instead of just owning these weapons without the ability to reproduce them. The most prominent example of Iran's visibility in this regard is the construction plan of a joint drone factory between Moscow and Tehran in Tatarstan. This joint cooperation signifies Iran's production capacity on the global stage as Tehran would provide technical assistance to Russia in mass-producing Iranian Shahed-136 drones. Such a scenario would enable Moscow easier access to a continuous stream of Iranian kamikaze drones, which would increase pressure on Ukraine's air defense systems and military forces.[236]

The establishment of a Russia-Iran drone factory in the neighbourhood of NATO will also have prominent strategic implications, bringing a major strategic rival's arms production to the Alliance's eastern front.[237] In response, six NATO states including Finland, Norway, Poland, Latvia, Lithuania, and Estonia proposed to build a drone wall along their borders with Russia and Belarus. This decision was reached on 24 May 2024 and will be funded by the EU.[238] The drone wall initiative will incorporate both aerial surveillance drones and anti-drone systems, with UAVs monitoring the border while combat systems countering Russia in cases of provocation or smuggling.[239] The reaction from several NATO countries shows that Iranian drones have been seen as a menacing threat on European soil. If the plan is implemented, the drone plant would be the newest addition to Iran's growing global production network, expanding from its drone facility in Tajikistan.

According to Haffa, one of the critical requirements for deterrence is the substantial deployment of a state's forces overseas to be recognised by the intended

[236] Sine Ozkarasahin, "The Strategic Implications of an Iranian Drone Production Facility in Russia," *The Jamestown Foundation*, March 6, 2023, https://jamestown.org/program/the-strategic-implications-of-an-iranian-drone-production-facility-in-russia/.

[237] Kasapoglu, *How the War in Ukraine Shapes Iran's Strategic Gains and Ambitions*, 3.

[238] "NATO Countries to Build "Drone Wall" on Borders with Russia and Belarus," Kyiv Post, May 27, 2024, https://www.kyivpost.com/post/33330.

[239] Ashish Dangwal, ""Drone Wall": 6 NATO Allies Bet On Groundbreaking Defense Mechanism To Protect Against Hostile Russia," *The EurAsian Times*, May 27, 2024, https://www.eurasiantimes.com/drone-wall-6-nato-allies-bet-on-groundbreaking/.

adversaries. A form of military visibility is prominent for a deterrent strategy to be considered credible and capable.[240] Thus, Iran's drone deployment in Ukraine applies to Haffa's deterrence requirement as Tehran's drone export has a global reach. It means that Iran is able to project its power as a country with the capacity to supply a big power such as Russia with its indigenous drones and assist them in producing more combat drones. Even though Iran deploys no ground troops directly in the war, its forward presence in the form of Iranian drones can pose a threat to Ukrainian forces and the West. Based on this, it can be concluded that the visibility of military force does not necessarily have to refer to ground troops as mentioned by Haffa, but a military force can also be in the form of providing a continued stream of combat weapons to a trusted ally in a war as demonstrated by Iran.

6.2.2 Willingness to Use Force

While the presence of military force is to enhance visibility, Haffa explains that the willingness to use force is implied to showcase the credibility of deterrence. One of the factors that can be used to measure force credibility is through pointing to past uses of force.[241] In this analysis, Iran's use of political deniability often in the past reflects its willingness to conduct proxy war in the region, which would further reveal the same pattern that they used in the war against Ukraine.

Historically, Iran has been known to deliver military and financial assistance towards its proxy groups, the Axis of Resistance, to convey its strategic interest inside the Middle East. However, the case of Iran's support to Russia did not differ greatly in serving the influential aspect in terms of strategic implications for the country. The extended support towards its proxy groups and Russia points out one common advantage for Tehran, which is plausible deniability. This refers to the ability to engage in activities that the Iranian government does not want to publicly acknowledge due to political reasons. This political deniability allows Iran to carry out actions in a way that enables them to deny direct involvement and responsibility. This way, just as force visibility can be enhanced, the force credibility through measures of sending out Iranian drones and technical aid to Russia reflects the leverage that the Iranian government can deny any

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[240] Haffa Jr., "The Future of Conventional Deterrence," 102.
[241] Haffa Jr., "The Future of Conventional Deterrence," 102–103.

participation in the war, despite the physical evidence from debris of Iranian drones recovered in Ukraine.

On many occasions, drone attacks carried out towards Israel, Saudi Arabia, and the US military base in Syria have always been conducted by Iranian proxy groups such as the Hezbollah, the Houthis, Hamas, and Iraqi militias. Even though Iran was not the actor that directly led the attack, the country provided a large number of drones of various types and technology transfer, equipping these proxies with the capability to carry out drone strikes. Interestingly, the responsibility for each attack was claimed by the proxy, removing Iran's part of accountability. From this explanation, two key takeaways can be derived. First, for many years Iran has shown that its drone transfers to its proxies contribute to drone proliferation in the region, the lethality of Iranian drones used in attacks across the Middle East builds up the profile regarding the advancement of these weapons and the variations that come with it. These drone attacks illustrate the credibility of Iran's conventional deterrent. Secondly, there is a pattern that Iran continues to enjoy its plausible deniability through arms transfers with no real consequences besides the already imposed sanctions and arms embargoes from the West. This strategy that Iran positioned itself in the Middle East, the country also utilise it in the Russia-Ukraine war.

Ever since the Ukrainian forces publicly informed about the Iranian drone wreckage in September 2022, the Iranian government has rejected accusations that the drones recovered were Iranian-made and denied any involvement in the war. From Iran's Foreign Minister to Iran's President, Ebrahim Raisi, both have denied sending weapons to Russia since the war began.[242] Despite this dismissal, Iranian media, Kayhan Daily, whose editor-in-chief is appointed by Iran's Supreme Leader, has confirmed Iran's involvement in exporting hundreds of drones to Russia and the Russian forces had received training to operate the weapons against NATO in Ukraine.[243] Still, the article published by Iranian media did not alter the firm position of the Iranian government which continued its claim that the country maintained neutrality in the war. From the Russian

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[242] Paul Haven, "Iran's president denies sending drones and other weapons to Russia and decries US meddling," *AP News*, September 19, 2023, https://apnews.com/article/iran-raisi-ukraine-united-nations-5e196ef81249ca3ea8a12f5148f6d867.

[243] "Iranian Regime Mouthpiece 'Kayhan': 'Hundreds Of Iranian Combat Drones Were Exported To Russia – Just As Venezuela Benefited From Iranian Drones In The Past... For Some Time Now, Iranian Drones Have Been Operating Against NATO In Ukrainian Skies'," MEMRI, October 12, 2022, https://www.memri.org/reports/iranian-regime-mouthpiece-kayhan-hundreds-iranian-combat-drones-were-exported-russia-%E2%80%93-just.

side, the Kremlin had denied the use of Iranian drones by its force and claimed that the drones were Russian-made.[244]

In this case, political deniability by Iran is used as a strategy to avoid direct confrontation or escalation with Ukraine, and global powers including the US and the E3 by extension. Tehran aims to minimise the risk of triggering a larger conflict or facing international repercussions. Specifically, since admitting Iran's involvement equals to disclosing its violation towards the UNSCR 2231. Therefore, the goal of plausible deniability is to enable the Iranian government to escape culpability. Apart from maintaining deniability, Tehran has used the opportunity to blame Washington for causing the outbreak of the war due to their intention of expanding NATO in the east and claimed that the only actor reaping the benefits from the war is Washington's weapons manufacturing companies.[245]

6.2.3 Rationality of the Use of Force

Iran's improved relationship with Russia and the country's ability to maintain its political deniability in the war against Ukraine also augmented its capacity to withstand and evade international sanctions. Haffa points out that the use of conventional deterrence by a country is also driven by the rationality of the country's interest or out of necessity in reaction to its broader regional security dynamics. In practice, it is more likely a country would face greater risks and uncertainties resulting from not deploying its conventional deterrent strategy in the first place.[246] Thus, with sanctions that have crippled Iran's economy and isolated Tehran from the international financial system, the use of UAVs transfer to Russia serves a purpose as sanctions mitigation.

Since Iran had been cut off from the international banking system, Russia has been able to make the payment for Iranian drones through cash and gold. In November 2022, Russian military aircraft transported cash of around 140 million euros for more than 160 combat drones, including 100 Shahed-136 drones.[247] Initially, analysts estimated that each Iranian drone cost between USD 20,000 and USD 50,000. However, according to

[244] "Kremlin denies using Iranian drones in attack on Ukraine," Reuters, October 18, 2022, https://www.reuters.com/world/kremlin-denies-using-iranian-drones-attack-ukraine-2022-10-18/#:~:text=MOSCOW%2C%20Oct%2018%20(Reuters),impact%2C%20in%20attacks%20on%20Kyiv.
[245] Maziar Motamedi, "Iran's Khamenei says US wants to keep Ukraine war going," *Aljazeera*, March 21, 2023, https://www.aljazeera.com/news/2023/3/21/irans-khamenei-says-us-wants-to-keep-ukraine-war.
[246] Haffa Jr., "The Future of Conventional Deterrence," 103.
[247] Deborah Haynes, "Russia flew €140m in cash and captured Western weapons to Iran in return for deadly drones, source claims," *Sky News*, November 9, 2022, https://news.sky.com/story/russia-gave-eur140m-and-captured-western-weapons-to-iran-in-return-for-deadly-drones-source-claims-12741742.

IRGC's front company, Shara Thunder, Russia had been paying so much more. Each Shahed-136 drone costs USD 193,000 and Russia ordered about 6,000 drones, which would total around USD 1,1 billion. For Shahed-238, it costs about USD 1,4 million per unit and Russia planned to purchase 677 drones per year, amounting to USD 947 million. Iran's Shahed-107 cost about USD 460,000 each and Russia planned to purchase 2,310 drones, which would total approximately USD 1,5 billion. Overall, it is estimated that Russia paid Iran roughly USD 4,5 billion per year for the import of Iranian drones in Ukraine.[248]

Iran's proven capabilities of its drones in the earlier months of the war eventually paved the way for Moscow to create a joint cooperation with Tehran in producing their own line. This would mean more financial gain for Iran. According to documents signed by Russian Defense Minister, Sergei Shoigu, the contract for manufacturing the drone facility cost between USD 1,3 million and USD 1,5 million.[249] These deepened relations with Russia also manifest in other sectors beyond military cooperation. Iran's Finance Minister, Ehsan Khandouzi, claimed that Russia invested USD 2,76 billion in the country, contributing to a variety of fields including industrial, mining, and transport. Apart from this, both states had connected their interbank communication and transfer systems to boost trade and financial transactions. Indeed, this would make Russia the largest foreign investor in Iran.[250] From this point, it is clear that transferring UAVs to Russia not only alters the balance of power in the region through power projection, military gains, and political deniability but also paves the way for revenue streams for an isolated country. Nevertheless, this drone cooperation has strengthened Iran's ability to cope with international sanctions.

Most specifically, Iran's drone transfer to Russia signifies an economy that is highly resilient to adverse conditions and capable of thriving under significant pressures from the West.[251] This is demonstrated by Iran's advancement of military hardware in UAV technology to foreign markets which further increases the bargaining power in the

[248] "ISW: Russia Pays $4.5 Billion annually to Iran for Shahed drones imported for use in Ukraine," The Odessa Journal, February 7, 2024, https://odessa-journal.com/isw-russia-pays-45-billion-annually-to-iran-for-shahed-drones-imported-for-use-in-ukraine.

[249] "Russia Assembles Iranian Drones for Use Against Ukraine – Reports," The Moscow Times, July 4, 2023, https://www.themoscowtimes.com/2023/07/04/russia-assembles-iranian-drones-for-use-against-ukraine-reports-a81730.

[250] "Russia becomes Iran's largest foreign investor: Iranian finance minister," Alarabiya News, March 23, 2023, https://english.alarabiya.net/News/middle-east/2023/03/23/Russia-becomes-Iran-s-largest-foreign-investor-Iranian-finance-minister.

[251] Eslami, "Iran's Drone Supply to Russia and Changing Dynamics of the Ukraine War," 512.

region. In other words, Iran is trying to make its way as a global drone exporter by producing more arms and competing with other regional arms suppliers such as Türkiye and Israel in the international arms market. According to the SIPRI Arms Transfers Database, from 2019 until 2023, Israel and Türkiye ranked 9th and 11th place respectively in global arms exporters, with Iran in 25th place.[252] In terms of drones, Israel was in the lead as the world's main drone exporter up until 2014, having about 61 per cent share in global drone exports. Meanwhile, Türkiye saw a breakthrough in drone development in 2015 with a series of Turkish Bayraktar drones and has exported to nearly 16 nations including Ukraine, Azerbaijan, Morocco, Tunisia, Qatar, and Turkmenistan.[253]

The position of Russia also presents another relevant factor in this equation, which was once a leading weapons exporter before facing difficulties maintaining its position as a major power after provoking the war against Ukraine. The war had consumed vast Russian resources and evoked an array of sanctions, causing a vacuum in the world of arms sales and military equipment in a time of global instability and heightened tensions. As a result, Iran has become more dominant and attractive to countries that previously depended on Russia's military supply. Another consideration also stems from the fact that Iran's UAVs have been proven on the battlefield, across the Middle East and in Ukraine.[254] The Chief of Staff of the Iranian Armed Forces Major General, Mohammad Baqeri, claimed that the scope of foreign demand for sophisticated UAVs developed indigenously is much larger than Iran's production capacity.[255] Not long after the news of Iranian drones being used in the battlefield of Ukraine, Iran's Head Adviser for Military Affairs, Major General Rahim Safavi, confirmed in October 2022 that around 22 states have sent requests to purchase Iranian combat drones. Iran revealed that these requests come from Armenia, Algeria, Serbia, Tajikistan, and Venezuela, to name a few.[256] In February 2023,

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[252] Pieter D. Wezeman et al., *Trends in International Arms Transfers* (Stockholm: SIPRI, 2024), 2.

[253] Bashir, "The Iranian Drone Program: Role and Scope of its Influence in Iran's Foreign Policy," 34–35.

[254] Danny Citrinowicz, "Iran is on its way to replacing Russia as a leading arms exporter. The US needs a strategy to counter this trend," *Atlantic Council*, February 2, 2024, https://www.atlanticcouncil.org/blogs/iransource/iran-drone-uavs-russia/.

[255] "Iran Army stages large-scale military drone drill across country," Press TV, October 3, 2023, https://www.presstv.ir/Detail/2023/10/03/711993/Iran-Army-stages-large-scale-exercise-involving-nearly-200-sophisticated-drones.

[256] "Over 20 nations lined up to purchase Iranian drones: Official," The Cradle, October 18, 2022, https://thecradle.co/articles-id/2452.

Iran claimed that the number of states interested in acquiring Iranian drones increased to 90 countries, including an order of 15,0000 drones from China.[257]

Through Iran's arms transfer to Russia, the country had successfully acquired new clients for its drone exports. The strategic geographical location of Armenia between Iran and Russia serves as a bridge to transfer the cargo of drones from Iran to Russia. This shipment resulted in the Armenian government's increased interest in the weapons and eventually confirmed that the Armenian Defense Ministry had received Iranian attack drones in October 2022.[258] Around the same month, Iran and the Polisario Front in Algeria signed a drone deal, along with training and the development of infrastructure to operate the weapons.[259] The sales of these armed drones would be used by the Polisario Front against Morrocan armed forces over the disputed Western Sahara. Morroco representative had brought up the Kingdom's concerns to the UN regarding the growing presence of Iranian drones in North Africa as it threatens to destabilise the region.[260] Another new client was acquired following the establishment of defense agreement between Iran and Bolivia in July 2023.[261] Bolivian Defense Minister, Edmundo Novillo Aguilar, stated that its interest in obtaining Iranian drone technology is to protect the country's borders and combat smuggling and drug trafficking.[262]

In addition to acquiring new buyers, Iran also profits from enhanced cooperation with its past client, the Sudanese army. Both countries reopened diplomatic ties in 2023 after seven years of hiatus due to Sudan's role in the Arab coalition against the Houthis,

[257] Paul Iddon, "Iran Sees Ukraine War As Marketing Opportunity For Drones It Denies Supplying Russia," *Forbes*, February 16, 2023, https://www.forbes.com/sites/pauliddon/2023/02/16/iran-sees-ukraine-war-as-marketing-opportunity-for-drones-it-denies-supplying-russia/.

[258] "Iran-Armenia-Russia: The axis against Ukraine revealed," Eureporter, April 2, 2023, https://www.eureporter.co/world/armenia/2023/04/02/iran-armenia-russia-the-axis-against-ukraine-revealed/.

[259] "Iranian drones on Morocco's Borders, a cause for concern?," Military Africa, March 7, 2023, https://www.military.africa/2023/03/iranian-drones-on-moroccos-borders-a-cause-for-concern/#google_vignette.

[260] "Morocco demands Iran's support of Polisario be discussed at Arab Summit," Middle East Monitor, October 31, 2022, https://www.middleeastmonitor.com/20221031-morocco-demands-irans-support-of-polisario-be-discussed-at-arab-summit/.

[261] "Argentina asks Bolivia to explain defence deal with Iran," The National, July 25, 2023, https://www.thenationalnews.com/mena/iran/2023/07/25/argentina-asks-bolivia-to-explain-defence-deal-with-iran/.

[262] Rania Makram, "The Drone Deal: Analyzing why Iran's deal with Bolivia is alarming for South American countries," *FUTURE For Advanced Research and Studies*, August 7, 2023, https://www.futureuae.com/ar-Main/Mainpage/Item/8474/the-drone-deal-analyzing-why-irans-deal-with-bolivia-is-alarming-for-south-american-countries.

a long-standing Iranian proxy.[263] This enhanced cooperation entails further drone transfer involving Mohajer-6 in use by Sudan's Army for combat operations in the civil war fueled by proxies for access to the Red Sea.[264] Providing a substantial amount of financial and military assistance to the Sudanese government indicates a political interest from Iran to engage with Sudan.[265] This cooperation could also open up new opportunities to increase Iran's drone presence in the African continent as well as to attract new potential buyers from the region.

Over the past two years since the war began, Iran has seen a significant growth in its arms exports in the realm of drone technology. This was further reaffirmed in March 2024 by the Iranian Minister of Defense, Mohammad Reza Ashtiani, that "In the realm of defense capability worldwide, we hold a special position due to reaching a stage in indigenous production where we have manufactured the necessary equipment for our armed forces internally. This has led to our defense capability and the result of which is the national security of our country, with the format of this equipment being in the stage of exports."[266] Based on this statement, it is imperative to note that the achievement of the Iranian military in self-sufficiency has enabled the country to mass-produce its indigenous line of drones, paving the way for the country to showcase its defense capabilities, which is equivalent to the fulfilment of the country's strategic interest. As a growing global drone exporter, more countries and non-state actors are likely to be drawn to acquiring Iran's low-cost and sophisticated drones and adapting their employment techniques to take into account their demonstrated utility in the war in Ukraine.

Based on the explanation above and in correlation to Haffa's perspective of the rationality to use force, there must be logical reasons when a state decides to carry out a conventional deterrent threat. For Iran, the drone transfer to Russia serves benefits in providing a revenue stream to the country and bringing more clients for its drone export. Not supporting Russia in the first place would put Iran in the same financial difficulty due

[263] "Iran drones become latest proxy tool in Sudan's civil war," Alarabiya News, January 24, 2024, https://english.alarabiya.net/News/middle-east/2024/01/24/Iran-drones-become-latest-proxy-tool-in-Sudan-s-civil-war.

[264] Simon Marks, "Iranian Drones Become Latest Proxy Tool in Sudan's Civil War," *Bloomberg News*, January 24, 2024, https://www.bnnbloomberg.ca/iranian-drones-become-latest-proxy-tool-in-sudan-s-civil-war-1.2025864.

[265] Marc Español, "Why Sudan's army is pivoting towards Iran," *The New Arab*, February 12, 2024, https://www.newarab.com/analysis/why-sudans-army-pivoting-towards-iran.

[266] "Iran Defense Minister Boasts Of Increasing Arms Exports," Iran International, March 13, 2024, https://www.iranintl.com/en/202403135373.

to sanctions and would not give Iran the upper hand to showcase its power in drone production to the international community.

Conclusion

The purpose of this thesis is to understand the strategic interests of Iran in supplying UAVs to Russia in the war against Ukraine. In order to reach this aim, primary and secondary data were collected and discussed within the theoretical framework of realism, security dilemma, and conventional deterrence. The research begins by presenting previous discussions on the importance of UAVs in revolutionising the war, which provided insight into the value of drones for the Iranian military. Then, a thorough understanding of different theories is laid out which would guide the research. Realism was first explained to understand the importance of Iranian drone activities as equivalent to showcasing Iran's military strength. Political realism is the basic foundation for exploring a more in-depth framework, which is the security dilemma and conventional deterrence. The use of security dilemma helped in identifying the correlation between Iran's security and military technology advancement. Meanwhile, conventional deterrence is used in revealing how UAVs are seen as a military tool for conventional deterrence of the Iranian military strategy.

The research continues by identifying the pursuit of Iranian drone proliferation in the Middle East and beyond. Before delving into details on Iran's drone activities, an explanation of the Iranian military doctrine and strategic interest as well as the rise of the Iranian UAV programme and its current arsenal is needed to get a better perspective on the scale of its armaments. The findings showed that Iran's past struggle in importing weapons due to sanctions was the main factor that initiated Tehran's interest in advancing its drone programme to achieve military self-sufficiency with modern technology. Following this, the research presented an impressive inventory of Iranian drones with diverse capabilities from conducting ISR missions to combat operations. Another research finding is discovering the varied use of Iranian drones to fuel support towards its Axis of Resistance in the Middle East in carrying out attacks towards Iran's adversaries without putting the country directly in the operation process. In another way, Iran also made use of its ability to mass-produce its drones by exporting them to states outside of the region, Venezuela, Sudan, Ethiopia, and Tajikistan.

Ultimately, this research focuses on the use of Iranian combat drones in the war against Ukraine, specifically the most commonly used is the Shahed-136 drone. Their low cost and capabilities especially in accuracy were the main factors that drove the Russian

government to deploy them in the first place and planned a drone facility to mass-produce the weapons. However, the research also discovered that Iran's support towards Russia caused the Western powers to retain their sanctions despite the expiration of arms embargoes in 2023 based on UNSCR 2231 and the condemnation that the country received from the international community.

Finally, the discussion to answer the research question revealed two possible factors that encouraged the Iranian government to transfer drones to Russia in Ukraine. The first one is related to the military gain that the Iranian government received from tightened military cooperation with Russia. Following the improved relations between the two nations over drone transfer, the acquisition of Russian arms systems was possible for Iran in the form of Su-35 fighter jets, Mi-28 attack helicopters, and Yak-130 jet aircraft. This arms deal not only enabled Iran to modernize its outdated air force but also gave access to these advanced technologies in the Iranian hands for the possibility of being reverse-engineered. From this point, Iran considered that arms build-up with modern technology is required to provide national security and enhance the country's capabilities to encounter potential attacks from the US and Tehran's prominent regional adversaries, Israel and Saudi Arabia, which both states continuously receive military support from the Western powers.

The second factor is the utilisation of drones as Iran's conventional deterrent. The research was conducted by analysing three components to determine that Iranian drone transfer to Russia is part of their deterrent strategy. The first component refers to the visibility of the Iranian military force, which revealed that indeed the presence of Iranian drones on Ukraine's battlefield serves as a political symbol of power projection for the Iranian regime. This projection signals to its adversaries that sanctions cannot stop Iran from upgrading its military technology while at the same time boosting the country's profile from its capacity to support a big power such as Russia. Iran's involvement also aims to project its production capacity in drones and test their functionality and performance in warfare. The second component refers to the willingness to use force, which revealed a pattern of Iran's strategy of using plausible deniability from its drone proliferation in the Middle East through its proxies to the battlefield in Ukraine through Russia. This political deniability allows Iran the opportunity to deny any direct involvement and responsibility. Another strategic implication that would prevent Iran from admitting its violation of the UNSCR 2231 and avoid direct confrontation with the West.

The last component refers to the rationality of the use of force, which revealed that deploying drones to Russia gives Iran a strategic advantage on the financial side and arms exports. From an economic consideration, the amount of financial gain that Iran received from Russia could help Iran's economy as a coping mechanism against sanctions. Most specifically, since Moscow ordered a large number of drones and both nations have signed a deal for the construction of a drone factory in Russia. The growing ties between the two also resulted in big foreign investments of Russia to Iran in other sectors. This strategy proves to be another way for the Iranian government to ensure continuous revenue streams towards the country. From the arms export aspect, the proven combat capabilities of Iranian drones in Ukraine have driven about 22 other states to purchase these weapons. Not only would this make more states and non-state actors rely on the supply of Iran's drones, but also pave the way for Iran to gain new clients as well as improve the arms deal with past buyers.

Based on these research findings, it is sufficient to confirm that Iran's drone transfer to Russia in Ukraine indeed serves as a part of their conventional deterrent strategy, which proves to be capable and credible. Besides the strategic implications that Iran gained from its deterrent strategy, the drone transfer opens up the way for Iran to obtain military gain which would further complement Iran's air force.

Even though this research has managed to reveal benefits for Iran, there are more alarming factors worth monitoring that could potentially risk international security in the future. Therefore, the following are a few recommendations which could be seen as possible future research of strategic implications stemming from the cooperation between Iran and Russia in the war in Ukraine:

- The possibility of Iran transferring ballistic missiles to Russia in Ukraine could also mean the potential transfer of space-related technology for Iran in return. It is concerning because Iran's space program is connected with its ambitions to develop Intercontinental Ballistic Missiles (ICBMs), advanced weapons capable of carrying nuclear payload delivery.

- The sea route from the Caspian Sea to the Sea of Azov which could potentially be used for the transport of illicit weapons between Tehran and Moscow.

- The possibility of the Western powers utilising diplomatic ways as a communication tool instead of imposing more sanctions as it proves not to be effective in the long term and maximum pressure could push Iran towards deeper cooperation and coalition with other major powers such as China.

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