

**T.C.  
ISTANBUL AYDIN UNIVERSITY  
INSTITUTE OF GRADUATE STUDIES**



**TURKISH MILITARY DRONES AND CREATING A STRONGER ROLE  
FOR TURKISH FOREIGN POLICY IN ITS REGION**

**MASTER'S THESIS**

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**Political Science and International Relations Department  
Political Science and International Relations Program**

**JUNE, 2022**



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**JUNE, 2022**

**APPROVAL PAGE**

## **DECLARATION**

I hereby declare that all information in this thesis document which I submitted as a Master thesis, is written without any assistance in violation of scientific ethics and traditions in all the processes from the project phase to the conclusion of the thesis and that the works I have benefited are from those shown in the References. (30/6/2022)

Samar ABDELRAHMAN

## **FOREWORD**

Since my early stages, I was taught to work hard for what I sought to achieve, to be patient and strong-willed to accomplish the goals I set in my mind, these priceless attributes were taught from my loving-caring parents to whom I bestow an ever-burning flame of gratitude and a deep sense of obligation, and to my husband and my daughter for the unceasing source of encouragement and benign made the completion of this work an honorable achievement to my academic journey.

Special thanks and grateful senses to my honorable advisor Assist. Prof. Dr. Filiz Katman for her constant help, guidance, and suggestions, without whom the present work would not have been accomplished.

June 2022

Samar ABDELRAHMAN

# **TURKISH MILITARY DRONES AND CREATING A STRONGER ROLE FOR TURKISH FOREIGN POLICY IN ITS REGION**

## **ABSTRACT**

The purpose of this study is to understand how Turkish military armed drones create a stronger role for Turkish foreign policy. In recent years, Turkey has been able to be one of the pioneers in the field of manufacturing military drones and has proven its success and ability to solve wars.

The study will analyze the role of Turkish military drones in conflicts such as in Libya, how the battle for Turkey's ally was resolved in the reconciliation government, as well as its impact in Armenian-Azerbaijani conflict, and analyze its role in Idlib province on the Turkish border in response to a Syrian attack backed by Russia. It will also analyze the role of Turkish drones in its fight against terrorism with the PKK.

The study aims to clarify and discover how Turkey plays stronger role in foreign policy through military drones, since every country tries to become the strongest and race to arm itself with modern weapons through which it can be in a position of sovereignty and power. In Realist Theory, as the realists see politics as a struggle, and every country must not trust any other country, even if it is an ally.

In terms of methodology, the study is qualitative and uses a case study where it is important to study the case of Turkey and its development in the field of military drones, and the research also uses historical analysis where it is important to know how technology helped in military development, and the beginning of the use of military drones and how it has evolved over the years. Data will be collected from secondary and primary sources. Data will be collected from secondary sources by reviewing previous literature, documents, scientific research, and books. As for

primary sources, they will be collected through face-to-face interviews with experts in the field.

**Keywords:** Turkish Military Drones, Foreign Policy, Military Strategy, Realist Theory, Libya, Azerbaijan, Syria, PKK



# **TÜRK ASKERİ İHA'LARI VE BÖLGESİNDE DAHA GÜÇLÜ BİR DIŞ POLİTİKA YARATMA**

## **ÖZET**

Bu çalışmanın amacı, Türk askeri insansız hava araçlarının (İHA) Türk dış politikasında nasıl daha güçlü bir rol oluşturduğunu anlamaktır. Türkiye, son yıllarda askeri İHA üretimi alanında öncü ülkelerden biri olmayı başarmış ve savaşları çözmedeki başarısını ve kabiliyetini kanıtlamıştır.

Çalışma, Libya'daki gibi çatışmalarda Türk askeri insansız hava araçlarının rolünü, Türkiye'nin müttefiki için çatışmanın uzlaşma hükümetinde nasıl çözüldüğünü ve Ermeni-Azerbaycan çatışmasındaki etkisini analiz eder. Rusya'nın desteklediği Suriye saldırısına yanıt olarak Türkiye sınırındaki İdlib'deki rolünü analiz edecektir. Aynı zamanda Türk İHA'ların PKK'yla olan terörizmle mücadelesindeki rolünü inceler.

Çalışma, her ülke en güçlü olmaya çalışırken, egemenlik ve iktidar konumunda olabileceği modern silahlarla silahlanma yarışına girerken Türkiye'nin askeri insansız hava araçları aracılığıyla dış politikada nasıl daha güçlü bir rol oynadığını açıklığa kavuşturmayı ve keşfetmeyi amaçlamaktadır. Realism teori üzerine yapılan bu çalışmanın realistlerin siyaseti bir mücadele olarak görmeleri ve her ülkenin müttefik dahi olsa başka bir ülkeye güvenmemesi gerektiği için önemlidir.

Metodoloji açısından, çalışma niteldir ve Türkiye örneğini ve askeri insansız hava araçları alanındaki gelişimini incelemenin önemli olduğu bir vaka çalışması kullanır ve araştırma ayrıca teknolojinin nasıl yardımcı olduğunu bilmenin önemli olduğu yerlerde tarihsel analiz kullanır.. Veriler ikincil ve birincil kaynaklardan toplanacaktır. Veriler, önceki literatür, belgeler, bilimsel araştırmalar ve kitaplar incelenerek ikincil kaynaklardan toplanacaktır. Birincil kaynaklar ise bu alanda uzman kişilerle yüz yüze görüşülerek toplanacaktır.

**Anahtar Kelimeler:** Türk Askeri İHA'ları, Dış Politika, Askeri Strateji, Realist Teori, Libya, Azerbaycan, Suriye, PKK.

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## **ABBREVIATIONS**

|             |   |
|-------------|---|
| <b>CIA</b>  | : Central Intelligence Agency                     |
| <b>FATA</b> | : Federally Administered Tribal Areas in Pakistan |
| <b>GNA</b>  | : Government of National Accord                   |
| <b>GPS</b>  | : Global Positioning System                       |
| <b>LNA</b>  | : Libya National Army                             |
| <b>NATO</b> | : North Atlantic Treaty Organization              |
| <b>SEAD</b> | : Suppress the Enemy's Air Defenses               |
| <b>TAI</b>  | : Turkish Aerospace Industries                    |
| <b>UAV</b>  | : Unmanned Air Vehicle                            |
| <b>USA</b>  | : The United States of America                    |

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# **I. INTRODUCTION**

## **A. Topic**

This paper will focus on the study of Turkish military armed drones and how they have created stronger role for Turkish foreign policy in its territory. This paper will explore and explain when drones began, how they evolved, and why Turkey manufactured them locally and did not rely on importing them from the first countries of the industry, such as Israel and the USA, as most countries do. The reason why the state of Turkey is the main focus of this study, because Turkey has in recent years been able to be one of the pioneers in the field in the military drone industry, and it has proved its success and ability to resolve wars. The study will analyze the role of the Turkish military armed drones in wars such as the Libyan war and how the battle was resolved for Turkey's ally in the government of reconciliation, as well as the Armenian-Azerbaijani war and how it gave preference to Azerbaijan to win the war, and analyze its role in the Syrian war in Idlib province on the Turkish border in response to a Syrian attack supported by Russia, and also will analyze the role of the Turkish drones in its fight against the PKK.

The past few years have witnessed shifts in Turkish military policy and how technological advances have aided on military progress, and how Turkey became one of the most important pioneers in the manufacture of drones, not only in its manufacture, but also in its military uses, and how it was a strong ally with other countries .Washburne (2015) in his research paper explains how the military of the USA and the Central Intelligence Agency (CIA) have used drone aircraft over the past 20 years. The researcher explains how the US military used drones in the fight against terrorism and the destruction of Al-Qaeda in Pakistan, Yemen, Somalia, and Afghanistan. He explains how the US and the CIA kept an official secret of using drones against terrorists until former President Obama revealed the secret. The researcher in this research aims to provide the reader with a background on the use of

drones by the US and the CIA. It also provides an analysis of the results of the polls. Through this survey, he is trying to reveal the impact of the drone on US desire to intervene militarily abroad. However, according to my study, regarding the US in the historical background of drones, it will explain how the US used drones against the Soviet Union during Cold War and how it used them against terrorist groups. It is important to explain the role of the US in the field of drones because it is the first country to manufacture and use them. Katranci (2020) explains the importance of drones in hybrid warfare. In this paper, he explains how Turkey has been able to advance in this area, and how Turkey was able to rely on itself in the production of the drones. The researcher analyzes how drones will be of great importance in future wars and how they will be more efficient than conventional weapons. In the study, it will also shed light on Turkey's role in this field by clarifying its role in the wars that it was able to resolve in some areas, such as the Libyan and Azerbaijani wars. From a legal point of view, it is important in the study of drones. Ceran (2014) explains the drone from the point of view of international law. It aims to conduct a contemporary analysis of international law on the methods and means of war, and changes in war technology using military drone. The main analysis of this study is based on three fundamental angles of international law: international humanitarian law, international human rights law, and the fundamental principles of international law. In this research paper, the researcher analyzes the use of drones by discussing "targeted killing" because he sees it as one of the most major methods of armed use. The researcher uses humanitarian law in problems related to the distinction between civilians and combatants. The researcher explains that one of the most important discussions of the international community about drones is the violation of human rights, the "right to life" is the basic principle. The research will also highlight the study of international law on the use of drones because methods of warfare change rapidly and of course the technology used in wars and conflicts. Basturk (2015) explained the intelligence and espionage aspect of drone technology, where he talked about drone technology in intelligence gathering. In this study the researcher explains the importance of drones in sending them to spy and reconnaissance instead of sending people and endangering their lives, as well as drones will be more accurate in collecting information, transmitting videos, and recording data. As for Terkan (2015), he explained that drones are one of the most important means of



combating terrorism today. Drones are used in areas where terrorists are present, such as Afghanistan, Pakistan, Iraq, Yemen, and Somalia. FATA (Federally Administered Tribal Areas in Pakistan) is the area where drones are used and where there are tangible results. The study explains the importance of drones and their importance in combating terrorism. The paper talks about the role of the US, Israel, Turkey, and North Atlantic Treaty Organization (NATO). The study reveals the role of the CIA in its activities in espionage, reconnaissance, and attack on the Taliban and Al-Qaeda. The study presents a solution to combating terrorism with drones and developing drones in Turkey. As for Ozcan (2013), in his study, he explains and analyzes the role of military drones since the eighties in their struggle with terrorist groups. In this paper, he analyzes how the rugged terrain on the border between Turkey and Iraq creates a corridor for terrorist groups to cross. The researcher analyzes the role of drones' effectiveness in protecting the Turkish-Iraqi borders. As for Boyle (2013), he explains how the Obama administration was able to use drones against terrorist groups. It explains how it was effective in killing terrorist activists, and how it was more protective of civilians than other military weapons. The researcher analyzes the Obama administration's use of drones from the point of view that the US using drones to achieve other goals, which are to provide a continuous flow of weapons and financial resources to build governments that systematically undermine their legitimacy. Kamaras (2021) explains and analyzes in this research paper how Turkey was able to do according to the wars in the conflict areas. The researcher also presents the reasons for delaying the procedures for imitating and neutralizing the development of the drone and the deployment of the main strategic competitor to Greece, Turkey, the researcher explains this during the period of escalating military tensions Between the two countries. The researcher also explains the political implications of this. Kreps (2016) points out in her book "Drones: What Everyone Needs to Know" that drones are considered the most transformative military innovation, so that humans no longer must engage in war and rely on weapons to control them from a distance. In her book, Sarah collects information about drones. The book contains the uses of drones, how they work, what they are, and who uses them. The writer mentioned how technology has changed the shape of war, specifically drones. Maass (2015) points out in the article "from U-2s to Drones: U.S. Aerial Espionage and Targeted Killing during the Cold War and the War on Terror" that the

US, since the events of September 2001, has relied on launching its attacks on drones in the war on terrorism. This article includes a historical and legal view of the US' use of drones against terrorist groups. The article also discusses in the use of drones what is better between what is necessary for security and what is better politically. The writer Faust (2016) explains the challenges that drones face in terms of privacy, airspace, and accidents. The author is talking about drones and how the armies have been using drones since the nineties. How is new technology for drones discovered daily? Boyle (2015) explains what military drones are, how they are used and how they work. The author explains, that in recent years many countries have sought to arm themselves with unmanned aircraft and work on developing, producing, and selling them. The writer explains that from the point of view that this matter will have important and dangerous consequences for the international system, it will make the arms race on drones to reshape ongoing conflicts and competitions through 3 ways from the writer's point of view, the first, as he says: the proliferation of drones will lead to appear, reset the rules and laws that govern surveillance and reconnaissance. And two: drones will increasingly be useful to governments in strategic testing. Third: The author says that the spread of drones will double the risks of conflict spirals resulting from accidents or hijacked planes. Klinik & Celik (2021) in their book explains how Turkey managed to play an important role in the Nagorno-Karabakh war, which ended in favor of Azerbaijan. Turkey was able to play an important role in changing the rules of the game, by supporting Azerbaijan with drones in the conflict, which contributed greatly to Azerbaijan's victory. The book explains Turkey's political, military, and diplomatic contributions to Azerbaijan. The writer also explains the role and impact of military support for Turkey, specifically the drones, on Azerbaijan's Nagorno-Karabakh. According to Sen & Akarslan (2020) the focus is to explain the role of drones and their use for various purposes in recent years. The writer explains the role of drones in terrorist activities in conflict areas and Turkey. The author explains how governments confront them with the use of military drones in terrorist acts. The author analyzes the current anti-drone systems according to their capabilities. The writer aims to draw attention to those terrorist activities using drones, and to guide the defense community about finding solutions to them.

## **B. Purpose/Importance**

Drones are generally the most controversial weapon in the world now because they are the most effective weapon in reaching targets accurately while protecting soldiers and military personnel during military operations on the ground. It is important to study the case of Turkey, because in the past the military drone industry was largely limited to USA and Israel, but in recent years Turkey's role in that industry has emerged greatly and not only in its industry but also in its use in conflict zones and through which Turkey was able to resolve the battles, which made it a military advantage, and Turkey proved to be a strong ally on which to rely. For example, in Libya, it has been able to demonstrate military superiority over Russian defense systems. By using drones in wars drone has been able to give Turkey an advantage in political and economic agreements.

**The main question:** How have Turkish military drones created a stronger regional role for Turkish foreign policy?

**Sub-question:** What is the role of the Turkish military drone in wars and conflicts? **Hypothesis:** Turkish military drones have given Turkey a deeper role for Turkish foreign policy in its regional political and economic conflicts.

## **C. Fields, resources, place-duration, and support**

The research is based on international relations and foreign policy studies. It basically looks at how Turkey's military drones have created a stronger regional role for Turkey and how it creates a balance of power with the countries with countries they faced during the conflicts and wars in Syria, Libya, Azerbaijan. The study uses books, articles, scientific research, and a review of literature. Interviews are conducted with experts.

## **D. Methods and techniques**

The study is be based on qualitative research. The research uses a mixed, descriptive, exploratory research approach. To explain and reveal how Turkey has distinguished itself in the field of military drones. The study uses case study prompts

where it studies the case of Turkey, and the research also uses historical analysis to find out how technology has helped in military development. The goal is to understand, know and analyze how Turkey's use of drones has evolved, how it has created a strong regional role for it, and how it has influenced Turkish foreign policy and created a balance of power in this field. The study uses the deductive approach.

Data is collected from primary and secondary sources. This study focuses on two major data collection method namely document interrogation and expert interview. The document interrogation focuses on secondary data collected, analyzing information from different sources, scientific research, books, and reviewing the related literature and information is also collected from primary sources by interviewing experts in the field, in which the researcher asks specific questions regarding the topic. The research uses two properties to analyze primary and secondary data.

## **II. CONCEPTUAL AND THEORETICAL FRAMEWORK: DRONE TECHNOLOGY, FOREIGN POLICY, MILITARY STRATEGY, SMART POWER, REALISM THEORY**

### **A. Definitions**

#### **1. Drone technology**

There are many shapes and types of regular and military aircraft, each with different engines, capacity, size, and speed, but some types of aircraft may reach the size of a "matchbox", which has insomnia most countries of the world, more than giant aircraft, and even changed a lot in the concept of wars even in life matters. This plane is called a "drone" that is programmed and directed remotely, and is controlled by specialized experts on the ground, that is, it is an unmanned aircraft, and it is equipped with tools that allow it to carry out the tasks required of it, and it may be equipped with devices, cameras, and even missiles and missiles to be used against certain targets.

What is a drone? There is no agreed upon definition of drones, but for NATO's standardization agency the drone or Unmanned Air Vehicle (UAV) is "a powered, aerial vehicle that does not carry a human operator, uses aerodynamic forces to provide vehicle lift, can fly autonomously or be piloted remotely, can be expendable or recoverable, and can carry a lethal or non-lethal payload. ballistic or semi- ballistic vehicles" (Aaronson, 2014).

As for (FAA, 2019) Drones are planes that can fly in the sky without a pilot. It is controlled remotely through control stations via joysticks, smart phones, and through the human brain. The drone can also be controlled through voice or gestures. The control methods are all linked to the drone to operate safely, efficiently, and accurately in the airspace. It is also characterized by its ability to fly in a very low airspace.

The world's passion for discovering everything new helped it to develop many types of drones to contribute to the various life tasks, civil and military. Some of them

are heavy and large, others small and light, and drones that can fly at low altitudes, and others medium and high (Abdelkefi, 2017).

It is considered one of the most important and oldest uses of the drone, which is militarily, as well as the field that this research paper will address. Drone technology has brought about a great industrial revolution and a qualitative leap in the field of weapons. It was able to prove its importance and success through its use during modern wars and in helping against armed terrorist groups. Where the idea of the drone started in the ancient era during wars in a primitive way as a trick, not as a technology. This was with flying balloons, which were carrying explosives, during the war between Austria and Italy, but it was not a successful idea. With the development of technology, its industry has been developed through modern wars to turn from a mere hoax carried out by Austria to a precise technology with great impact, as the drones have enabled countries to use them in the military field since the World War and during the Cold War between the Soviet Union and the US to spy on each other. Then it became used in operations targeting terrorist groups (Kornatowski, 2017).

Turkey is currently considered one of the most important manufacturers of drones of different types and sizes and for various uses. Turkey has become the world's talk now about its distinction and rise in the field of military industries, as the military industries in Turkey have grown during the past twenty years. Where it is now considered that most of the military weapons used by the Turkish army are manufactured locally, and among the war weapons that Turkey has escalated and through which it has become the talk of the world are the drones, as it has become the competition of the major countries in the production of UAV. Such as America, Russia, China, and Israel. Through Seljuk Bayraktar, the godfather of drones, the legend and designer of drones, and the husband of Sumaya, the daughter of Turkish President Recep Tayyip Erdogan, Turkey was able to become a leading country in the field of drone manufacturing, but also in its resolution of wars and conflicts. At a young age, Bayraktar was able to build models of drones and was very passionate about developing drones. Bayraktar was able to design many aircraft, starting with the mini-UAV. Then he developed a larger plane, the TB2, which was a plane with large wings that carried ammunition, and Turkey used it by targeting terrorists in the PKK. It

produced TB2s and exported them to many countries such as Qatar, Libya, Nigeria, and Morocco. Turkey concluded a deal with Nigeria on the condition that Turkey would train pilots in the country in exchange for Nigeria getting minerals and natural gas (Witt, 2022).

Turkey intervened in the conflict between Syrian government, backed by the Russian regime, and the Syrian opposition, when Bashar al-Assad, the Syrian president, attacked the hiding places of the Syrian opposition. Turkey launched attacks with drones targeting the regime forces and the militias supporting them, and these attacks were estimated at very large losses for the Syrian government and forced the Syrian government to stop its military campaign against the opposition and the delivery of humanitarian aid, and Turkey warned the regime against violating the truce (Bakeer, 2020).

Turkey also intervened in Libya when Haftar, the retired Libyan general, launched a massive attack on Tripoli and battles that affected civilians. Haftar delegated himself to rule Libya, but Turkey intervened with Turkish drones TB2, according to the military agreement between the internationally recognized Government of National Accord (GNA) and the Turkish government, in addition to signing an agreement to demarcate the maritime borders between the two sides. Turkish drones destroyed a wide range of sites, fortifications, weapons, and systems belonging to Haftar's militia, forcing them to withdraw permanently from their positions (Selján, 2020).

Azerbaijan was able, thanks to the great Turkish support, to regain control over most of its lands that had been occupied by Armenia since 1992. This was after the intervention of Turkish drones BT2 and BT2s drones, which played a major role in destroying trenches and radars, penetrating Armenian fortifications and defense lines along the front, as well as destroying air defense systems And the Russian electronic systems of the Armenian forces (Bowen, 2021). When Russia invaded Ukraine last February, Ukraine used TB2 drones against Russia, destroyed Russian military defense weapons, and bombed transport trucks to disrupt Russian supply lines (Witt, 2022).

In recent years, the use of drones has expanded, and it is not only used in the military field or by armies, but also has become used by companies, organizations, and

governments. Where drones are used in the field of agriculture, where they can accurately reveal the condition of crops and develop treatment programs, monitor fields, and contribute to crop spraying (Sarghini, 2017) and in the field of film and television through photography. And commercially in the delivery of parcels, as it can work in places that have unsuitable road infrastructure and crowded places (FAA, 2019). It is also used in the mining field, where the drone is used to measure the fragmentation of rocks, and the drone can help in mapping the mine environment and monitor the stability of the exhaust (Shahmoradi, 2020). Drones are also used in the medical field in the delivery of medical supplies and the transfer of blood platelets without being subjected to dissolution or exposure to acidity and enabling them to transport analysis materials and help save lives faster (Konert, 2019). The drones were also able to prove their effectiveness in contributing to the search operations after the occurrence of natural disasters. Drones helps in performing high-precision and challenging tasks efficiently and professionally (FAA, 2019).

## **2. Foreign policy**

Governments are not only based on dealing with the peoples they rule, but they also deal with other governments of other countries in several different areas such as, trade, exchange of ideas, and work together to solve global problems, and to resolve conflicts. Accordingly, foreign policy and making foreign policy is a very important process for countries to be able to pursue their foreign interests. The good foreign policy of the state elevates the state's status, through which states can achieve their external interests and enable states to gain their good standing among other states. The term foreign policy is a very broad term and there is no specific and precise definition of the term foreign policy. Although the concept of foreign policy is simple and uncomplicated, because of its simplicity, an accurate concept has not been developed, and many thinkers and researchers have differed in defining an accurate concept.

Foreign policy is an essential part of international relations and the international system that emerged after the First and Second World Wars. International relations and the international system arose to assist countries in the process of establishing peace and stopping major wars, and for the cooperation between states to take place each other so that each state achieves its interests away from wars that destroy. foreign



policies. Foreign policies arose for the process of determining the decision and strategy of each country to deal with other countries. Accordingly, it is very important for each country to have a foreign policy so that it can work and cooperate with other countries. (Held et al., 1999).

Many military thinkers have defined foreign policy in different ways. For example, Hermann sees that foreign policy is the behavior of states. He defined foreign policy as defined by Hermann, who defined foreign policy as a purposeful action that must result from an individual or group of individuals deciding at the political level, as it is a tool for a political decision. He also saw that foreign policy is not a decision, but rather defined it as the product of the decision (Bojang, 2018).

As for Joseph Frankel (1968), foreign policy is made up of decisions and actions, as it includes the relations between one country and another. Through Joseph's definition, we see that foreign policy is about decisions that are made within the borders of the state so that its goal is the forces located outside the borders of the state. The implementation of decisions and ideas that govern the behavior of countries when dealing with other countries.

Foreign policy depends on the behavior of states, as he defined foreign policy as a system of activities developed by societies to be able to change the behavior of other countries and also so that they can adjust their own activities with the international environment, and that foreign policy must see and shed light on the change that countries do and the success in changing the behavior of other countries (Neack, 2008).

As for Badilford and Lincoln (1977), foreign policy is the sum of the state's interactions with the external environment, as they defined it as the overall or result through which the state translates its goals and interests. Through a large scale, this is for the state to achieve its goals and be able to preserve its interests. Based on this definition, the meaning of foreign policy is that through which the state can achieve its goals and to preserve its national interests.

Gibson (1944) saw foreign policy as having to be a comprehensive plan and it should be good and based on knowledge and experience so that governments could manage their affairs with the rest of the outside world. Ferry Hughes that the state can

use force to achieve its interests if diplomacy fails. This is considered the best definition because the state should not use soft power only in order to achieve its interests, so force must be used, and foreign policy does not mean the use of diplomacy only.

Through all these views and definitions of thinkers about foreign policy, foreign policy is the actions, behavior, activities, tools, and methods that the state carries out with other countries, this is done through plans, goals and plans, foreign policy is the general directions of a government or a country in order to preserve and defend on the national interest of the state.

As for foreign policy makers, they must have sufficient understanding and flexibility, and carefully study the various factors affecting directly or indirectly in making this policy. The decision maker is the first thing that is faced with a sound awareness of the situation, such as sudden international crises. And he must be prepared with a decision and alternatives to that crisis. The decision maker must achieve the largest possible number of advantages, avoid mistakes, and achieve the least amount of loss. His foreign political decision must not negatively affect his national interest. The decision-making process goes through such a stage, which is the preparation and study of the variables related to the topic, defining the information, then the stage of studying it and studying the goal, then comes the decision-making process and translate it into reality (Holsti,1977).

Turkey has pursued a strong foreign policy in the arena and on the table in the past several years, Turkey has a well-established tradition of statehood and democracy, and derives its strength from its important geographical position and its deep historical experiences. For years, Turkish foreign policy has witnessed a clear deviation from its traditional course. Turkey uses in its foreign policy the policy of smart power (Oğuzlu, 2007). As it is currently considered one of the most prominent countries that use its hard and soft forces at the same time, for example in countries such as Syria, Libya and Azerbaijan, when Turkey intervened with its military drones in Syria against the Syriangovernment and forced it to stop its military campaign In Idlib, Turkey also forced him to sign a cease-fire agreement and used its soft power by threatening him not to violate the armistice, or else it would enter (Bakeer, 2020). Also in Libya, when

Haftar launched an attack on Tripoli, Turkey used its hard power to confront him by launching an attack with drones and forced him to withdraw, and at the same time it used its soft power to force Haftar to agree to a permanent truce, otherwise it will launch an attack on him again (Selján, 2020).

Although Turkey has emerged in the past several years in using its military and hard power and proving its strong presence, but it is also seeking a policy of zeroing problems and repairing its relations with countries with which there were tensions (Kardaş, 2012). Since the Justice and Development Party (AK Party), came to power in 2002, Turkey has focused on soft power tools, for example, achieving remarkable economic progress, developing its democratic system, and providing a model for coexistence between Islam and democracy in a secular country, in addition to the spread of Turkish drama and other factors related to the common history. With Arab and Islamic countries, as well as providing humanitarian aid and using public diplomacy and mediations between the conflicting parties. Turkey was one of the country's most supportive of the Arab Spring, and it supported the revolutions politically, economically and in the media, which provoked many Arab regimes that opposed the revolutions, and Turkey was subjected to pressure from its neighbors as a result of that support. In the end, Turkey tries to use her soft and hard powers at the same time (Oğuzlu, 2007) (Benhaïm & Öktem, 2015).

### **3. Military strategy**

The writers and authors were unable to determine the correct identity of the military strategy, and since each of them has his personal point of view and the difference between the concepts of these writers and authors, there is no clear definition of the meaning of strategy and its means, which suggests that the concept of this word or term has not yet crystallized in the minds of the pioneers and thinkers of strategy.

The research process in the term military strategy takes us to five hundred years BC when the first book on military strategy was written by the Chinese military philosopher Sun Tzu, which was entitled "The Art of War", and it is considered one of the most important ancient manuscripts in military history. The book is the bible for military studies, and this is due to the effectiveness of the tactical principles and

philosophical ideas that revolve around ways to win the war and achieve victory on the battlefield on the one hand, and on the other hand, the validity of these ideas, which are still used even in modern wars, and this is what makes this The book is a major source for the rest of the writings in the field of military strategy and in this field (Ota, 2014). Sun Tzu says: “Resourcefulness is the basis of the art of war, so we should pretend helplessness when the ability to attack is available, and pretend not to work, when we want to use armies, and convince the enemy that we are far away when we are close to him, and that we are near when we are far from him, and they used the trap to lure the enemy.” Here, Sun Tzu does not use the term military strategy directly, but we find that the contents and meanings of this term have been established in the set of advice he gave to the military commander before going to battle, and thus military strategy can be an art as it is a science, during its application and practice in practice. Knowing more in theory for less in practice, it is an eternal truth, as the Chinese strategist San Tzu says: “The most distinguished of these leaders are the wisest, the most forward-looking and visionary” (Okafor et al., 2015).

Theoretical data and a forward-looking vision are necessary to calculate the cost of the war, and the time and resources it may consume. Therefore, for Sun Tzu, this point is one of the important elements in setting the military strategy. Therefore, the cost of fighting the war must be considered. “If your military campaign is prolonged, the resources of the state will not keep pace with military expenditures” (Lee & Ko, 2000). Accordingly, the development of successful war plans is not intended to excel and win in all battles, and this appears especially if we calculate the material and human losses of the war. Despite the great importance of San Tzu’s ideas on military strategy, in practice at this stage the basic features of military strategy as a self-contained concept in war and military sciences are not clear. It provides a clear definition of military strategy as a concept that has its cognitive and scientific limits, and we have to realize, in addition, that the military capacity represents one of the most important factors that we find within the state’s supreme strategy. From an intertwining in which it is difficult to find the limits of the relationship between it and tactics, and it is difficult to estimate the moment of the end of the strategic movement and the beginning of the tactical movement, but the strategy seeks to reduce the battles if possible.

As for Colin Gray, military strategy as having a complex nature. He also said that it is a function that cannot change over the centuries. The strategy always aims to serve the national interest of the state, and in order to achieve this goal it uses the best of its capabilities and tools of power in an environment that may be characterized by great degrees of complexity, volatility and ambiguity. In addition to other factors such as culture, geography, nature, allies, competitors ... etc. (Lonsdale, 2020). As for some other military thinkers, they defined military strategy with different meanings from each other. For example, Clausewitz saw military strategy as a means of reaching the goal of war, as he saw it as the art of using battle (Rothe, 2014).

The phenomenon of using military force to resolve several conflicts has increased over the past years, after many years of using negotiation and political mechanisms to resolve those conflicts. As for Turkey, the Turkish strategic deterrence is an important part of the military strategy (Haugom, 2019) and it is based mainly on the idea that the influential position that Turkey should assume on the regional and international scene requires the Turkish society and the state to reinterpret history and geography According to a self-awareness of existence, he is psychologically aware of the distinctiveness of the Turkish element as well as the importance that history and geography have given it; Therefore, the strategy does not stop at searching only for optimal ways to secure Turkish national security, but also how Turkey uses its historical and geographical heritage in its foreign policy to achieve a suitable regional and international position. There are local, regional, and international reasons that led Turkey to shift from soft power to hard power, and the features of the current regional and international scene encouraged it to do so (Larrabee, 2010) (Davutoğlu, 2013).

The successive events during the past decade have caused an increase in the threats facing Turkey both internally and externally. Internally, Turkey has suffered from terrorist operations carried out by armed groups, most notably the Islamic State and the PKK (Casier, 2010), the country witnessed a coup attempt (Yavuz, 2016). Externally, the explosion of the situation in Syria led to waves of displacement of millions of Syrians to Turkish territory, as well as the establishment of military bases on the borders Turkey on the part of foreign powers, such as the US and Russia (Haugom, 2019), as well as the presence of Iranian militias that control a number of

regime areas, and Kurdish terrorists that control nearly a third of Syria's area, including oil-rich areas, and are trying to establish a national homeland for the Kurds on Turkey's borders, which represents a threat Turkey's national security (Said, 2017). Turkey found itself alone without the support of its Western allies in the face of Russia during the crisis of shooting down a Russian plane over Turkish airspace in 2015 (Özertem, 2017), amid an American and Western refusal to provide Turkey with air defense systems, advanced military technologies and drones (Egeli, 2019). Turkey decided to move towards the development of its military industries. Numerous research, studies and statements shed light on the development of the Turkish military industries, and how it moved from relying on abroad to purchase weapons, to manufacturing its own weapons with locally made capabilities, which gave it a large margin for maneuvering and self-reliance and not waiting for the approval of other countries to use these weapons in the fields of battles, as well as its ability to supply its allies (Karataş, 2020).

#### **4. Smart power**

Since ancient times, man has used force to be able to achieve what he wants. The concept of power is the cornerstone of politics and international relations. Through the concept of power, we can explain and understand international interactions. In the past, force meant hard or coarse force in its hard and violent form. Military capacity is one of the most prominent components of state power, and hard power is the traditional form of force since time immemorial (Holsti, 1964). But with the passage of time and with the scientific and economic development and the end of the major world wars in the world, it is no longer acceptable to the world and people that military force is the ruling and basic element only in international relations or even within the political systems themselves. Rather, it was a duty to make changes in the concept to keep pace with it. The modern system, especially with the emergence of the internet and the spread of information and its clear impact on bringing about changes in political values and the orientations of state and non-state actors. The concept of power evolved from military and economic power in its hard and violent form to the ability to persuade and influence through soft power.

Power takes many forms and changes according to the nature and form of the existing system. Many political thinkers also dealt with the concept of power with

several visions, each of them seeing power from his own perspective. For example, Machiavelli defined force as one of the basic elements for the establishment of the state. He emphasized that the existence of any state, institution or organization depends primarily on force; Because it is the only source for maintaining its permanence and expansion, the state, in his view, is an expansionist force (Gilbert, 1939).

As for Ibn Khaldun, who preceded all of them, he defined the concept of power in his introduction when he divided political power into several types and stressed the necessity of force in the existence of the state and the maintenance of the continuity of government, and he believed that political power consists in tyranny, influence, and temptation (Messier, 2008). Lasswell & Kaplan saw that power is participation in decision-making. (Bachrach & Baratz, 1963). Whereas Blau sees power as that individuals and groups have the potential and ability to impose their will on others (Wrong, 1995). Hans Morgenthau saw power as the ability to influence the behavior of others to do things contrary to their priorities, without that ability they would not have done or done. He also saw that this ability and power is a psychological relationship between those who exercise it and those against whom it is exercised, as it gives the guardians control over some of the actions that others do through the influence they exercise on their minds, and this may be taken in the manner of command, threat, or persuasion, or by a combination of some of these methods (Murray, 1996). To summarize what all thinkers and scholars see, power is a special relationship between two parties, a relationship in which one of the two parties must have greater capabilities, which allows him to have some supremacy in power.

Transforming resources into a force that is used efficiently and effectively is a very important factor in the political process, and it depends on political will and organized thinking, and following some historical cases, we find that wars have been determined not only by capabilities and capabilities, but by the presence of a balanced ruling political leadership and a political culture that has a decisive role in the political field Politics is closely related to power, and this is what distinguishes it from all other types of human activity.

The term soft power appeared at the hands of Joseph Nye (1990), who presented it in his article “Soft Power”, to fit with the nature of the new environment of

international relations in which the volume of economic and political relations is increasing, which makes it dangerous if military force is used in its previous form. Therefore, Nye presented his concept, mainly targeting American power and how it deals with the international community in this new era. Nye defines soft power as “the ability of a state to get what it wants by relying on gravity rather than coercion. The state can achieve goals through encouragement, not intimidation, through the model of emulation represented in moral or non-material sources such as power, culture, and ideology (Nye, 1990).

Nye sees that culture is a set of values and practices that create meaning for society. If the state adopts global policies, cultures and values in which others participate, and not narrow values that express a special culture, this will achieve the desired results for this state. In addition, the values in which the state believes, such as democracy and human rights, give more legitimacy to the state's goals, thus helping to achieve them. But this does not mean ignoring the role of hard power, as both are two sides of the same coin. Nye believes that soft power is of the same level as hard power, as both support each other. Hard power is the basis for soft power as it increases the attractiveness of the state, and soft power provides a cover for hard power. Legitimacy in the eyes of others and thus improve the image of the state and its policy (Nye, 1990).

British political writer Carr described international power in three categories: “military and economic power and control of opinion” (Nye, 2012). Currently, states seek to use a combination of these two forces, in what is called “smart power.” The concept of smart power is not a new or innovative concept. It is a concept based on the combination of hard power and soft power. Ernest Wilson (2008) defined smart power as “the ability of the international actor to mix the elements of hard power and soft power in a way that ensures support for the achievement of the goals of the international actor efficiently and effectively.” Based on this definition, states must know the purpose of exercising force. And that he has the will and ability to achieve power, as well as employ the tools and time to achieve the desired goals.

Turkey is one of the most prominent examples of using soft and hard power, as it showed when 36 Turkish soldiers were killed due to the attack of the Syrian government forces. Turkey launched an attack and a bombing campaign targeting the



Syrian government forces, which led to great losses in its ranks. Through that, forced the Syrian government to stop its military campaign and sign a cease-fire agreement, and threatened it more than once if it violated that truce that it would enter (Bakeer, 2020). Through its hard and military power, Turkey was able to use soft power by forcing the Syrian government to agree to that agreement and not to violate the armistice.

Turkey also used its hard and soft powers once again, when Haftar launched a massive attack on the capital, Tripoli, to take control of the country. But Turkey intervened and launched a drone attack on the sites, fortifications, weapons, and systems of Haftar's military, forcing it to withdraw permanently from its positions south of Tripoli. And it used its soft power by forcing Haftar and his backers to agree to a permanent truce. When Haftar tried to target Turkish forces in Libya, the Turkish Defense Minister threatened to target Haftar personally, if he tried to harm Turkish forces in Libya (Selján, 2020).

In the end, the countries that want to use soft power and compel other countries to do what they want, must possess solid power, strong military capability, and a strong economy. Strength does not gain weight except by having the ability and ability to transform the available sources of power into effective energy and an effective weapon, and therefore Robert Dahl defined power as the ability to compel others to do something they would otherwise do (Lukes, 2015).

## **B. Realism**

Countries establish a variety of different relations among themselves. These relations may be either cooperative relations or conflict relations, so the science of International Relations came, to understand the various international phenomena and work to shed light on understanding the causes and factors. Hence, many theories of International Relations emerged, as a major factor contributing to the study of International Relations. There are many theories of International Relations, each of which attempts to provide explanations for International Relations. After the world wars, International Relations have witnessed radical transformations in terms of the scope of their interactions and the diversity of their issues and problems. Therefore,

International Relations have become of a high degree of complexity. Accordingly, the relationship between Realist Theory (classical, neo-realist, structural and neo-classical) and International Relations has gained a great deal of coherence. Realist theory was and became the dominant paradigm in understanding international relations and the international system. The Realist Theory is based mainly on the fact that International Relations are based on conflict and that man is by nature selfish and evil. Realism arose mainly in opposition to Idealism Theory. Idealism emphasizes cooperation, and that the international system should be free from conflicts and power (Smart, 1986).

Realist thought has its roots in the writings of Thucydides, Machiavelli, Hobbes, and other thinkers. The emergence of the classical realist theory was by the Greek philosopher Thucydides in Greece in the fifth century BC, where he laid the general foundations of realism through his experience in the Peloponnesian War. He documented it through his writings in the book "The History of the Peloponnesian War". As his book is not just a chronology of events, but rather an extrapolation of theoretical positions, where the realist theory is the theory by which he explains the events of the war. Thucydides follows the principles of classical realist theory, in which realists see human nature as inherently selfish and opportunistic and that their self-interest can override moral principles. As Thucydides wrote in his writings, the Athenians asserted, during the war, that their self-interest was more important than morals. The classical realists, according to Thucydides, view the world as having no common authority that can and should be able to impose order, and that states can survive if they are strong. Although the classical realists believed that the world was anarchic / anarchic, but they believed that security is a central and important thing, and for countries to achieve security, they must increase their military power in order to be able to protect their security. The classical realists also believed that the strongest had the right to dominate the weaker and that he who had the power had the right. But despite this, Thucydides believed that it was important to be against the other malign extremism, he nevertheless does not deny morality in international politics. Thucydides' veracity is neither immoral nor immoral (McQueen, 2017).

In the Renaissance, realism appeared in the ideas of Machiavelli, where he emphasized Thucydides' principles of realism. But Machiavellian realism is radical, as

it is a doctrine based on the denial of the importance of morals in politics, as it considers that all means to achieve goals in politics are permissible, whether they are moral or immoral, in contrast to Thucydides realism, which believes that extremism should not be. Machiavelli believes that the interest of the state is more important than any moral considerations and that the moral duty of the state is to strengthen its power, as Machiavelli saw that the end justifies the means. Machiavelli emphasized the evil nature of individuals, and that the ruler should adopt policies different from ordinary individuals in order to achieve his state's interest in achieving security and survival (Mindle, 1985).

Thomas Hobbes saw human nature as selfish and aggressive, as he emphasized the saying "the war of all against all." He believed that strength is the most important factor and the decisive factor in human behavior, because man always seeks to possess more strength. Accordingly, Hobbes emphasized that power is important in international relations. Hobbes believes that there should be no restrictions on the behavior of the individual and that everyone must use force at any time he wants, and that everyone must be ready to confront force with force. He also believes that individuals who seek power will tend to destroy or subjugate each other. Domination over others is a necessity for survival. The pursuit of power and the struggle for that power are the most important Hobbesian principles of international relations. Despite this, Hobbes did not deny the establishment of peaceful international relations, as he saw that it was important that relations be cooperative and peaceful, but Hobbes saw that international rules are ineffective in the process of controlling the struggle for power. Hobbes emphasizes strong power, which differs from contemporary realism, which sees that political institutions have a role in regulating power and preventing conflict (Douglas, 2016) (Oldemeinen, 2010).

The realist school in international politics gained its fame after World War II and began to impose and project a pessimistic view on international relations. so that a realistic picture of relations between countries reflected a realist image in the relations between large countries and small countries, between developed and developing countries and thus between the conquered and the defeated as a result of the Second World War (Karpowicz & Julian, 2018). Hans Morgenthau laid the foundations of

classical realism in his book *Politics Among Nations*, where Hans Morgenthau adopted the same view of human nature as Thomas Hobbes that the human soul is selfish and has a lust for power and that man has the desire to dominate and that this is one of the causes of conflict. Morgenthau believes that humans, although they are political animals that pursue their interests, are moral animals. And the theory of realism is important in the interpretation of politics in international relations. Morgenthau differentiates between three international policies. The policy of preserving power is a policy that aims to keep the distribution of power as it is, but this does not prevent any change in power, but rather aims to prevent any radical change in power. The Policy of Increasing Power States strive to increase their power and achieve a kind of hegemony by seizing other countries by all possible means, especially military ones. The policy of achieving influence This policy influences the brothers through the power that the state possesses or believes that it possesses, and this is achieved through the policy of displaying muscle or reputation in other countries (Karpowicz and Julian, 2018).

Traditional realism has relied on many assumptions as a basis for understanding and explaining the various complex phenomena in international politics. Some of these assumptions are the state is the main actor in international relations, and that the state should be one coherent entity, alliances between states can increase the state's ability to defend itself, but there should be no mutual dependence or loyalty between allied states where realism sees that Countries should pursue their own self-interest, relying on themselves, and they should not depend on the governments of other countries or trust them. The geographical location of the state affects its capabilities and its external political orientations (Rana, 2015). The basis of social reality is the group. Individuals in a world characterized by scarcity of resources face each other not as persons but as members of an organized group that constitutes the state, and therefore the basis of political life is represented in conflict groups and therefore if these groups change, the main nature of the conflict does not change and therefore there is no harmony of interests, that politics cannot be determined by morals and therefore Ethical principles cannot be applied in political action. The difficulty of achieving peace through international law or even world government, where there is no central authority. The basic truth in relations between states is power, and states are always working to increase their strength so that conflict becomes a natural matter in relations between

states, while friendship, if it exists, is the result of a convergence of interests, and due to the absence of a central authority that monopolizes power and can impose its will on everyone, international relations are characterized by complete chaos. Realism believes that the international system is unjust and is always distinguished by conflict between states. Therefore, states must be concerned with power and self-interest. It also fundamentally and largely respects the values of national security and the survival of the state. Realism also sees that states should pursue their own self-interest, relying on themselves, and they should not depend on, or trust, the governments of other countries (Karpowicz and Julian, 2018) (Rana, 2015).

Realism depends on special concepts on which realist thought in international relations relied in explaining the various complex phenomena in international politics. Power is the central idea of the realist theory, as it is the main determinant of international behavior. Countries remain strong because they are either strong or because other countries guarantee their protection and must make their first goal to maintain or increase their strength, because strength means the ability to go to war, and therefore countries always emphasize the importance of building their military institutions. Hence, the pursuit of power by states remains the cause of international conflicts. As the balance of power, there is a strong link between the rate of economic growth and power and war, the nature and speed of economic growth increase the capabilities of countries, and this would lead to conflict and the outbreak of war between countries. One of the basic concepts of realism is the achievement of the national interest of the state, which is the final continuous goal of its foreign policy (McQueen, 2017).

Based on all the above, realists believe that the international environment is one of chaos, wars, and battles because there is no supreme and central authority that can control the international community, the behavior of states, or the achievement of international security. Thus, realists see that the evil nature of individuals makes them seek to possess more power and impose dominance. Realists also see that this instinct cannot be changed in individuals, groups, and states. Morgenthau asserted that the main driver of diplomatic relations is the intentions of evil human nature. Realism believes that the supreme goal of states is security, states strive to maintain their own security,

and therefore do their utmost to preserve it and seek to enhance their security in various ways and means, because realism sees that the main objective of states is survival and in order to preserve it they must maintain their security and strengthen It is militarily itself because the international community is chaotic, so every country is keen within this framework to achieve its own interests, even if it transgresses others, in order to ensure its continuity, which ultimately achieves the interests of the state (Rösch, 2013).

Realist theory has evolved over the years from Classical Realism to Neo-realism, Structuralism, and Neo-classicalism. Neo-realism, also known as structural realism or modern realism, is an extension of the Traditional Realism of the 1980s. Among its most important proponents, Kenneth Waltz attempted to reformulate realism in a new way in the sense of repairing the defects of Classical Realism. Waltz explained that the structure of the international system based on conflicts is the reason for the behavior of states, since it is the chaotic international system that pushes states to use force to try to survive. The neo-realists also believe that the primary interest of every state is security, and hence the focus should be on the distribution of power (Telbami, 2002).

Then Neo-classical Realism emerged and was divided into Defensive Realism and Offensive Realism, where Defensive Realism saw that the state achieves security by creating a balance of power. Defensive Realism claims that states have a tendency to balance with other states, and if they do not do so they may suffer consequences and may be eliminated from the system. As for the Offensive Realists, they assume the opposite, as they believe that the state achieves security by not creating a balance of power, and that states want to strengthen and magnify their military capabilities to resist any attack from another state and that states, in order to ensure their survival, must be the strongest state in the international system. Offensive Realism is also called Aggressive Realism, as countries seek to achieve maximum security. Mearsheimer, who leads this theory, believes that the great powers are trying to dominate in their region, and at the same time are keen that no competing great power dominates another region, and the main goal of every great power It is to maximize its share of global influence, and ultimately control the system (Rose, 1998).

Based on all the above, of course, there is a strong relationship between Realist

Theory and military drone technology. Since in the chaotic environment of the international system, the risks that threaten states increase, and therefore their security becomes highly vulnerable to loss, and accordingly states seek to use all available means, especially military force, to ensure their security of survival, although the interests of each state differ. The other state, but the first interest that all states share is the interest of survival. Countries strive to be in a position of the strongest, and to reach this position, they must have stronger capabilities in their region and the world. One of the most important goals that countries seek is to increase their military power and economic power in general. Countries are racing to arm themselves with the best military equipment and are trying hard to develop their weapons based on modern technology. Turkey is an example of this, as Turkey applies some principles of realistic theory through its manufacture and use of military drones. During the past years, Turkey was able to gain a strong position in its region due to the low-cost Turkish military aircraft production sector. In the beginning, Turkey implemented the principle that the ruler is the one who can seize opportunities to advance the state or to fall. President Erdoğan sought to develop the national defense industries and made the development of the national defense industry his main priority and enacted the for this purpose. Under it, the authority to oversee the defense industry and defense procurement was granted to the presidency, completing the legal framework for Erdogan's project to produce homemade weapons (Haugom, 2019) (Bağcı & Kurç, 2017).

Turkey has sought to enhance its domestic production of weapons locally for many years because it does not want to rely on military weapons imported from other countries. (Bağcı & Kurç, 2017). Specifically, after some countries rejected many Turkish requests for advanced weapons. As in 2014, the US Congress refused to transfer two Oliver Hazard Perry-class frigates to Turkey due to Ankara's hostile stance towards Israel, and most importantly, the long-term ban imposed by the US on the export of drones to many countries, especially Turkey (Esebua, 2017). American drones possessed absolute control over the skies of the world, a hegemony that began from the moment Washington launched the first recorded attack with armed drones in Afghanistan in 2001 (Crawford, 2016) but that changed during the last five years with the achievement of many powers. Other breakthroughs in the field of drone

manufacturing, led by China and Turkey, which are today one of the most prominent global powers in this field. Turkey requested to obtain armed Heron drones from Israel, which has been using military drones since the 1970s, but it took five years for Israel to provide the aircraft to Turkey, before Ankara accused the Israelis of sabotaging the plane's engines and remote imaging systems. It is returning them for a repair that also took a few years, and even after Turkey took back the planes, which were operated by Israeli technicians, Turkish officials remained skeptical that footage collected from the planes would secretly make its way into the hands of Israeli intelligence, suspicions that were exacerbated by Especially after the diplomatic estrangement between Ankara and Tel Aviv in the wake of the events of the ship "Marmara" in 2010, when Israel killed nine Turkish citizens on board the ship that was trying to break the Israeli siege on the Gaza Strip (Karataş, 2020).

So, in the end, Turkey worked on the manufacture of military drones locally, following a principle of the realistic theory, which is that countries should pursue their own self-interest, relying on themselves, and they should not depend on the governments of other countries or trust them, and that the international system is unfair and always distinguished by conflict between countries for that. Countries should be concerned with power and self-interest. Turkey is aware that the international environment is an environment characterized by conflicts. Everyone wants to become the superpower, and that there is an arms race. Therefore, Turkey has manufactured military drones to enter that race to become a powerful country in its region. The development of the Turkish military industries, and how it moved from relying on the outside in the purchase of weapons, to the manufacture of its weapons with locally made capabilities, which gave it a large margin for maneuvering and self-reliance and not waiting for the approval of other countries to use these weapons in the battlefields, as well as its ability to supply its allies with them.



### **III. HISTORICAL FRAMEWORK: REVOLUTION ON MILITARY AFFAIRS FROM USING PRIMITIVE WEAPONES TO DRONES**

#### **A. Revolution in military affairs**

Man's existence on this world requires many needs for his survival, which are based on food, water, and housing. With the fighting instinct of human beings from attack and defense, and their awareness that whoever possesses weapons will outweigh the balance of power, armament becomes one of these life requirements, regardless of the purpose of his possession. Whether it is noble or malicious, but a tangible reality says: The status of nations is measured-mostly-by their weapons, because if you have a strong weapon, other countries will fear you and will take into account what your weapon does in wars and conflicts. The field of armament is like all other fields of life, which began with the idea of need since very ancient times, and developed with the development of man, and its stages can be traced from the sword to the catapult until the machine guns, planes, tanks, missiles, drones, and all kinds of modern weapons, and of course the weapon had the last word in many Important historical events, changing the course of history.

Throughout history, wars and conflicts, a revolution occurred in military affairs that led to a severe revolution in fighting theories and methods of managing war. This revolution relies on the capabilities and capabilities offered by advanced military technologies that were not available before, which is something that must be evaluated by sailing in the depths of time. Past. As time progressed, there was a constant need to improve weapons and military equipment to meet the demands of operations. According to the realist theory explained in the last chapter, each country must modernize its method and achieve military advances over its enemies (Chapman, 2003).

Countries were seeking to possess power, so primitive wars appeared, and primitive weapons appeared that were devoid of any technology, such as the sword, spear and sonki, which were weapons that were used for close combat, and the arrow that was aimed at distant targets. The bow is considered the beginning of the start or the beginning of revolutions in military affairs, as it was launching long-range arrows and containing many arrows at the same time, so that it seemed to fight depth and flexibility of performance, and countries sought to develop the bow industry, where whoever owned the bow and arrow at that time was the winner. The abundance of formations and combat equipment increased, with the flexibility in their distribution on the theater of operations, and attempts were made to save defense for human power, by means of individual shields in the thirteenth century, and the full iron suit in the fourteenth century, in the presence of the wide range of approach and docking equipment (Maschner & Mason, 2013).

From the principle of countries' pursuit of power and the struggle for power in the realistic theory, as the research mentioned in the second chapter, countries sought to develop the arms industry to bring about another military technological revolution, and that was through the emergence of gunpowder, projectiles, and shrapnel at the hands of the Mongols and Genghis Khan. For Shepherd (202, to begin a modern era in which firearms in all its forms prevail, and artillery is not similar to the armies of the world, and its use continues until this moment. With the increase in the number of wars, the expansion of their scope and their tendency towards internationalism, the emergence of Western colonies and the struggle over places of sale and purchase and sources of revenue, it became necessary for every republic that desires distress, and yearns for immunity, to try to impose control over the methods and axes of international maritime transportation, so it has become the imposition of control over the seas and airspace. One of the reasons is that planning is so necessary. Weapons increased in power and ease of use, and for this reason artillery prevailed over cavalry, and took its place as a hammer for battle, destroying groups of enemy soldiers in the depth, cutting off the withdrawal methods of its front forces, and preparing the best ways for the friendly infantry forces attacking from the front, to eliminate the enemy, and impose the will on him (Wilson, 2011).

Then the influence of the technological progress brought about by the Industrial Revolution in Europe forced the military who adhered to the old to search for modern ways to manage wars and battles. There were available means for the transfer of artillery and forces, the speed of supply practices, and the relative ease of maneuvering on the sides and the rear of the opponent, and the First World War began and appeared. The tank as a modern weapon and the warplanes, the revival of the war of movement again, and armies were able to exaggerate the pace of battles. The impact of the emergence of the German submarine had a great impact on the naval theater. And chemical weapons appeared, which greatly affected those who fought in the trenches, and it was necessary to wear a gas mask, as Germany developed offensive chemicals, and France launched bromine ethyl acetate bombs. And Germany adopted a new military strategy, which is to create toxic clouds in the sky to distract the enemy with commercial cylinders of chlorine gas, a gas with an immediate and deadly effect (Vilchesa et al., 2016).

The First World War is considered the real beginning of revolutions in military affairs, as many modern weapons appeared at that time. In the year 1922 AD, General "Fuller", head of the corners of the British Crown soldiers' groups, called in his book "The Role of Tanks in the Great War (1914-1918 AD)" that the Allies' victory in the First World War was due to the tank. And that the West must build armored and mechanized armies, characterized by a small quantity of human soldier's groups, but a great quantity in terms of the qualitative influence of armor, as "Fuller" saw that (99%) of success in the war will depend on the weapon, while the rest of the other components of Employment, leadership, courage, discipline and supply of needs represent only (1%) of success. In his memoirs on the war, de Gaulle supported Fuller's ideas, and even considered that the secret of the collapse of France at the forefront of the Second World War was its miscalculation of the theory of the small-armored armed forces (Pickles, 2022).

As for the warplanes that appeared in 1911 AD, it produced a revival of the war of movement again, and armies were able to exaggerate the pace of battles. The impact of the emergence of the German submarine in 1914 had a great impact on the naval theater. As for the theory of "air war", it was invented by the Italian General Giulio

Douhet, and he advocated it in the year (1921 AD). Douhet believed the air force can completely destroy the target and that the strong air force with good leadership can strike the enemy in a strategic destination in the tactical and strategic depth, leading to its surrender (Meilinger, 1993).

The revolution in real military affairs occurred in World War II (1939-1945), when technology played an important role in the war. This was one of the lessons learned from the First World War. Because of the need for newer equipment after the First World War. Military technology has developed greatly, as many modern military industries appeared at the time, such as ships, vehicles, submarines, aircraft, tanks, artillery, and small arms; biological, chemical, and atomic weapons. Logistical support featured vehicles needed to transport soldiers and supplies, such as trains, trucks, tanks, ships, and planes. Communications and intelligence also had a great role, such as devices used for navigation, communications, remote sensing, and espionage. Also, rocket science appeared significantly in World War II, such as guided missiles, medium-range ballistic missiles, and robotic aircraft. As the Second World War is the war in which countries were able to target their enemies on a large scale (Hickman, 2018). Then, a military revolution occurred again with the emergence of nuclear weapons on (August 6, 1945, AD), when the Allies dropped the first tons of TNT explosive devices with a force equivalent to (20 thousand tons) of explosives on the Japanese city of Hiroshima, killing and wounding hundreds of thousands of people (Dower, 2007).

Then the Cold War occurred between the Soviet Union and the United States of America. There was an arms race from each side, and each country sought to develop itself in the field of weapons technology to outperform the other. And the transistor appeared in the year 1947 AD, to start the amazing marathon in the field of electronics, and it became a major and constant dimension in modifying every weapon or equipment and allowing the construction of satellites (Riordan at al., 1999). The Space Marathon with the inauguration of the Soviet Union's first satellite, "Sputnik" on November 4, 1957, AD, followed by the Americans with the launch of the "Explorer 1" moon on (January 31, 1958). Despite the modest vanguard in using these satellites for a purpose, except that it quickly Its use expanded in the field of intelligence, espionage,

communications, photography, and even in carrying guided weapons, which appeared at the beginning of the sixties, and were used in Vietnam, some of which depend on photoelectric or television sensors, while the other few use laser sensors. Upgrading the means of transporting explosive or nuclear materials, whether from the surface of the earth, through artillery of all kinds, and missile bases, or from the weather, through different aircraft, or from space, through satellites, or from weather conditions over ships or submarines (Harmony, 2017).

The twentieth century did not want to end to hand over the reins of humanity to the twenty-first century before the conflict between the United States of America and the Soviet Union was finally resolved, to bring down the latter. The first ascends, and the transformation begins in the coming cosmic ideology, and the unipolar international system is established, during which the hegemonic great republic attempts to impose modern military theories on display. With the difficult development in the field of computers, which are characterized by high capabilities for information processors, integrated, highly accurate, and powerful automated armament systems appeared, leading to the provision of multiple sensors that ensure high accuracy in identifying the enemy's goals, and working to destroy them through the great leadership in an unparalleled industry Ordnance, successive destruction of the enemy and a guarantee of defeat and surrender of the enemy. Accordingly, the main purpose of the opening period of the war is to seek to paralyze the warning and air defense system and to take the decree of the opponent, which makes him question his ability to manage the military conflict (Gaddis, 1991).

The armies of the Arab World Alliance tried to test some components of the theory of air war during the war to liberate Kuwait, by launching an air campaign for a period of (39) days, although it was a realistic implementation of the theory of air war Giulio Douhet. It was characterized by the expansion of the use of drones, which led to an increase in the accuracy of hitting aircraft against ground targets. That campaign took place with a noticeable change in the dynamics of operations management, as the fighting took place simultaneously in three main dimensions: the near, the deep, and the rear, which made all groups of the opponent's soldiers in the theater of operations, whether in the front or in the depth, exposed to continuous fighting (Frostic, 1994).

Then the great powers tried to modernize weapons with the development of technology, through the issuance of missiles and unmanned aircraft (drones), which are directed automatically, through the Global Positioning System (GPS) on the surface of the planet, in a manner that ensures directing powerful fire strikes. For hostile targets, with high accuracy, and from very great distances. The missiles were issued programmed for specific purposes, to identify them, distinguish them, detect and track them, and then destroy them without others. In addition to this, a system of sensors collecting and processing information at the same time, in real-time, confirms the possibility of issuing highly accurate weapons, to allow the forces The friend is quick to perform higher than the opponent, and for that is the imposition of the will on him, because it maintains the initiative and decisiveness in managing the acts of combat. Currently, the world stands on the threshold of a modern military era or a military revolution. Where the technology used includes digital communications, which allows data to be compressed and preserved, and a satellite format that allows missiles to be directed attentively. Finally, and most importantly, computer processing (DeBlois et al., 2004). That modern revolution began to show its signs since the eighties, and the first wars that were bombed in the presence of the modern revolution were the Gulf War, which used F-117 bombers, laser-guided bombs, and cruise missiles, whose targets were carefully determined, and which destroyed many of the Iraqi systems (Frostic, F. 1994). In Bosnia, the Americans used the JSTARS format, which is a format for monitoring the Earth from the weather, with which it is possible to capture on a single screen and in any type of premises climate and model of any type of machinery, which walks the earth, over an area of two hundred kilometers square (Cole, 2006).

The revolution in military affairs revolves around the pursuit of excellence in three components. First, collect data. The sensor centers in satellites and drones can capture all objects moving within the boundaries of a given area. Then data processing: This was done through advanced command, dominance, communication, and data systems known as C41, which interprets the data it receives from sensor centers, and displays it on the screen. These systems then assign missiles and tanks to carry out certain tasks. Then use all this data to bomb far-reaching targets, but with a high degree of accuracy. Cruise missiles, guided by satellites, can hit a single property hundreds of miles away. And the US armed forces have components of these modern systems

operating now. In the US Navy, there is a format called “the ability to cooperate in cohesion”, which allows several warships to combine their radars together in one more powerful radar, which is available to each ship, but America has not yet reached the integration of all the progressive components into the system of systems. This modern system will allow the commander to continue the screen everything that is happening on the battlefield, choose a target, and destroy it with the push of a button (Chapman, 2003).

Hence, will find that the strategic leader in the present century will manage the war with buttons (by remote control). And that all these modern technological weapons will make the administration of war achieve control over the opponent’s behavior, and make it work according to what we desire, by neutralizing the enemy’s use of its armed forces, or undermining its military capabilities without any human confrontation, and in subsequent periods the opponent is eliminated without confrontation in The field of combat, which is called the revolution in military affairs for the next century. The power of the new missiles and bombs has become so high that each direction tries to have a first strike to prevent the enemy from responding, and at the same time, military operations will expand geographically as well, while the number of groups of soldiers and machines used in them will decrease. In the end, Sun Tzu said, “In order to carry out an attack, we must have means available. The material for raising fire should always be kept in readiness (Giles, 2011).

## **B. History of drone technology**

Drones have a long and consistent history dating back centuries. What has changed, however, is that technology has become more sophisticated, deadly, and accessible to the masses. Over time, it was used in various capacities such as the form of observation in the sky, as an "air torpedo" during World War II and as an armed aircraft during the war in Afghanistan. Unmanned aircraft or so-called “unmanned vehicles” have become the third revolution in wars for the current century, to be guided or pre-programmed aircraft for unmanned flight, which usually vary in size according to their different uses, such as photography, carrying missiles, and for monitoring and attack purposes. The most important weapons used in modern warfare.

## **1. The emergence of drones as a ploy**

The starting point is the city of Venice, Italy. Venice is the first city that was attacked by airborne bombs in 1849. At that time, Europe was witnessing revolutionary uprisings. At that time Austria was besieged by Venice. The Austrian forces were so close to the population that they could not attack the city without bombarding the population and they had to withdraw further from the guns. At that time, the Austrian Field Marshal Joseph Radetzky decided, to think of a trick and invention that would enable him to attack the enemy forces, so he placed the explosive shells inside the flying balloons. Austrian forces launched balloons towards Venice Against the city's winds, Austrian forces launched nearly 200 balloons over Venice. Venice would have become a pile of rubble if some balloons had not succeeded in exploding in Venice, but the winds made the other balloons return to the Austrian side and the explosion there, so their effect was minimal (Lavelle, 1997).

Flying balloons are a very clever trick, but it is not technical, but it was also the beginning of the launch and gave the world an example and an idea for inventing a stronger weapon that carries the same idea of balloons, which is the drones. A weapon that they can control so that the attack is in their favor and does not happen to them like what happened to the Austrian forces. Flying balloons cannot be controlled remotely and through them you cannot cancel the mission, you cannot, for example, target moving targets, you will not be able to stop an attack, you cannot stop reconnaissance or spying through them. It is a clever trick, but it lacks technology, that is, it can only carry explosives and direct them to a specific direction, despite that its success rate is low, and the attack on the gun is an example of that.

The history of drones' dates to the nineteenth century for the Serbian American inventor Nikola Tesla. Tesla used radio frequencies for remote control of small devices in 1898. He patented a method and device for controlling the mechanism of moving ships or vehicles. TELSAs described the wide range of possibilities for new radio control technology: The invention you described will be useful in many ways. Ships or vehicles of any suitable kind may be used, as life, dispatch, pilot boats or the like, or to pack bundles, drawings, tools, and things... But the greatest value of my invention will result from its effect on wars and armaments, for imposed and non-temporary causes of



destruction, will tend to to achieve and maintain lasting peace among nations (Jenks, 2018).

The armed forces of that time were already beginning to see how remote-controlled vehicles could be used to gain certain strategic advantages. For example, during the Civil War between the Union and the Confederacy, they did military aerial surveillance, each using hot air balloons to spy on each other and to help see each side's movements and where the artillery was being directed (Hastings & Stone, 2012). During the Spanish-American War in 1898, the US Army was able to deploy camera kites to capture some of the first aerial surveillance images of enemy positions (Watts et al., 2012).

## **2. Radio-Operated aircraft**

Jacques and Louis Bricquet, with the help of Nobel Prize winner Professor Charles Richett, invented the "Gyroplane No 1" in 1907. The Gyroplane weighed 1,274 lb (577 kg), with rotary wings that lifts itself off the ground. That plane was primitive and needed several people to be able to balance (Oskooei, 2020). Britain produced the first unmanned aircraft and worked on the project to develop drones and tested them in 1917 during the First World War, when the First World War witnessed the emergence of the first generation of drone technology (UAVs). But after several failed launches and destroyed prototypes, the British Army decided to abandon the project, believing it to be a failure. A year after the British Army abandoned the project, in 1916 the US Army created an American Hewitt-Sperry alternative. Then the US military worked on commissioning a more advanced version so that it could be capable of mass production, and they produced a "kettering bug" drone designed by Charles Kettering so that this bomb could hit a target from 50 miles away, a collaboration between the US Navy and inventors Elmer Sperry and Peter Hewitt To develop a remotely controlled aircraft that can be used as a piloted bomber or pilot torpedo, and crucial to this goal is the improvement of the gyroscope system that can maintain aircraft stability. Ultimately, the autopilot system that Hewitt and Sperry came up with eventually came with a gyroscopic balance, steering gyroscope, altimeter, radio-controlled wing, tail parts, and a flight-distance gauge. In theory, this would enable the aircraft to fly in a predetermined path, either dropping a bomb on the target or simply crashing it. In 1918,

the army launched the Curtiss-Sperry aerial torpedo, where it was able to make the longest successful flight, but unfortunately failed to land in a specific range and crashed into the sea, the army tried to develop it, but in 1918 the armistice was signed and the war stopped, and the torpedo was not used Or the Catering Bag (Keane & Carr, 2013).

The armies after World War I were experimenting with ways to enhance Tesla's vision and to integrate a radio-controlled system into various types of drones. During the period between the First and Second World War, countries tried to develop their military industries, and thus the development of unmanned aircraft. The US military developed unmanned aircraft, and in 1923 the F-5L radio-operated aircraft was able to reach a range of 10 miles and control it during the landing and take-off process was possible. The tests continued, and for the first time in history in 1924, one of the test flights managed to succeed in maneuvering, taking off and landing, and was successfully controlled remotely, but interest in it waned because it was not successful enough for the war, and the experiments died down until 1936 (Keane & Carr, 2013).

On April 14, 1924, the French engineer Etienne Ohmichen flew his Oehmichen plane after he worked on developing it, as it was considered the developed model of the successful design he made in 1920, as he made successful flights with the model he made in 1920 and made a huge number of flights, was This is amazing and considered impossible because in that period of time the mechanics were considered very complex (Oskooei, 2020).

### **3. The beginning of technology**

During World War II, before America entered the war, it worked on developing and improving wireless control of aircraft. At this time, Europe wanted a weapon that could be transported by air, and the US Navy searched for a weapon that could be used to suppress Japanese defenses. The Air Force has developed an air force that can target highly defensive strategic targets in Europe, specifically places and facilities that support and test German defense weapons such as, the V-1 flying bomb, the V-2 missile, and the V-3 cannon. Because of the success of the tests carried out by the army before the war in January 1942, Admiral John H. Towers, worked on developing a radiation-controlled aircraft to be able to conduct offensive operations while carrying a

torpedo or a deep charge. Within three months, the television was replaced by the radio to work as a primary guidance system to allow operations in all conditions of vision. In the same period, they were able to carry out a successful direct attack with a remotely controlled aircraft, ie by radio, and was also armed with a fake torpedo, and the radio-controlled aircraft was able to To hit the target to be destroyed (Keane & Carr, 2013).

On the other hand, from the other front, Nazi scientists worked in World War II in order to be able to bomb England. They developed radio-controlled missiles, and thus the German army was able in 1943 to manufacture the first kamikaze drones (Hastings & Stone, 2012). In 1944 General James Doolittle proposed stripping all old B-17 Flying Fortress bombers by stripping them of all combat weapons and all equipment such as rifles, bombs, shields, and all other equipment to the weight of each of them is reduced, and they equipped these planes with a remote-control system for some wireless devices, and they installed television cameras inside the cockpit and loaded them with Torbex explosives. And they let the mother ship control the planes remotely (Keane & Carr, 2013).

#### **4. American drones**

In 1944, General James Doolittle proposed stripping all the old B-17 Flying Fortress bombers by stripping them of all combat weapons and all equipment such as guns, bombs, shields, and all other equipment to reduce the weight of each aircraft of them and they equipped those aircraft with a control system They removed some radios and installed TV cameras inside the cockpit and loaded them with Torbucks explosives. Because it cannot rise from the surface of the earth itself, it was piloted by pilots, and when they reached a certain point, they jumped out of the plane by parachute and let the mother ship control the planes from a distance. Immediately after the end of World War II, the Cold War began between the United States of America and the Soviet Union. The Cold War period was also famous for the arms race between the US and the Soviet Union. Each side sought to arm itself in a better and more advanced way, in order to defeat its rivals, to suppress communist America, and to suppress capitalist Russia. America carried out reconnaissance missions through aircrew against the Soviet Union. US aircrews flew over borders and coasts unfriendly for reconnaissance. Each of them tried to invade space, and they began to manufacture planes that do not require

the presence of humans on board, that is, they fly without the presence of a human being. They launched satellites, and remotely control the missile's trajectory. Technology then made the possibility of drones possible. For example, Gore said, "We were building smaller engines and guidance systems, and we were improving our communication and computing capabilities" (Hastings & Stone, 2012).

It is considered the first real technical appearance of the UAV appeared during the Vietnam War. The Pentagon used unmanned aircraft and the army called it ISR. Those were the intelligence, surveillance, and reconnaissance air vehicles. As aviation historian David Cinciotti stated that "Vietnam was crucial to the development of drones as ideal tools to perform dangerous missions without the risk of losing a pilot". The Air Force was able to develop two attack drones during that period, the BGM-34A and BGM-34B Firebee, but they were not used in combat during the Vietnam War, as these aircraft were not powerful enough to identify and hit the target with the accuracy the army needed. (Hastings & Stone, 2012). The US military has conducted hundreds of intelligence-gathering surveys and taken pictures with remote-operated aircraft, from high and low altitudes. The Light Bug has also been built that can escape from Mig aircraft (a Russian company) where it was able to escape from the interceptions of aircraft and the interception of air-to-air and surface-to-air missiles. During the Vietnam War, the Lightning Bug was developed in order to be able to carry heavier weights. In 1965, the US Air Force worked on developing an unmanned reconnaissance plane that used advanced technologies. Stealth, but the program failed due to political and financial problems, but the Lightning Bug was able to target and destroy enemy ships (Keane & Carr, 2013).

After the September 11, 2001, attacks in America by armed groups. The CIA launched a targeted killing attack with drones. The CIA was able to obtain approval to carry out a targeted killing campaign against the groups they believed were the perpetrators of the September 11 attacks. Of course, the targeted killing campaign against terrorist groups was legal because it considered the use of force against groups that threaten national security. October 2001, the U.S. and its allies invaded Afghanistan with the aim of eliminating the Taliban. That day also took place the first recorded strike in history by a drone. The place is Kandahar, which was taken as its

capital by the Taliban. The weapon was a Predator drone on its first non-training flights. The target is the home of Mullah Muhammad Omar, the leader of the Taliban. Remote pilots pressed the launch button of two Hellfire missiles, targeting a group of men with beards and turbans. As for the result, it is that those three people were not from the Taliban, not including Mullah Omar, who remained safe from American targeting until he died after his term expired, a natural death in his hideout a few miles from a huge American military base. Lisa Ling, a former U.S. Army technical officer who specializes in working with drones, told the MIT Technology Review, “The reality is that too often we haven't been able to distinguish between militants, farmers, women, and children. This kind of war is disgraceful on many levels. Many” (Feroz, 2021). In 2015, US military drones carried out 411 air attacks on Afghanistan against armed terrorist groups in Afghanistan, including Al-Qaeda, the DAESH Khorasan and the Afghan and Pakistani Taliban, under the pretext of combating terrorism and maintaining national security (Serle & Purkiss, 2017).

As for Somalia, the US carried out military air operations with the drone, where it used the drone to target and spy against members of the al-Shabaab group. her partner. It arrested and tortured some of them for several years and assaulted some of them and spied on others as well. In 2011, the Pentagon's Special Operations Command carried out air strikes using drones. The CIA and the Pentagon also carried out military air strikes in Yemen in 2002 and 2007, targeting fighters of armed terrorist groups, resulting in the death of many people (Serle & Purkiss, 2017).

At the present time, a drone headed for the major withdrawal from Afghanistan, to eliminate a target believed to belong to the Islamic State-Khorasan Province, which claimed responsibility for the bombing of the double Kabul International Airport, which killed 13 American soldiers. That drone strike killed 10 civilians from one family, including seven children. As for the US Department of Defense, after an investigation by the New York Times, announced that this was a "tragic mistake", and that the person targeted in the strike had no ties to terrorist organizations (Aikins, 2021).

During the ten years, between 2004 and 2014, the American marches killed more than 1,100 people in Pakistan and Yemen, in operations that sought to

“neutralize” 41 targets, according to figures revealed by the British human rights organization Reprieve. Most of those targets are still alive, such as Khalil Haqqani and Al-Zawahiri, who paid the price of seeking to liquidate them by drones, thousands of innocent people. An investigation conducted by the Bureau of Investigative Journalism in London in 2014 revealed that only 4 percent of the victims of US drone attacks in Pakistan were militants linked to Al-Qaeda. The affiliations of all the targets being targeted were not distinguished by using the drones, and according to the report, the agency placed hundreds of those killed in vague general classifications, as they were merely "combatants from Pakistan or Afghanistan", or "unknown," as the report explained (Serle, 2014).

In 2011, the al-Qaeda so called leader was killed on May 2, in a raid by a US commando force on his hideout in Abbottabad, Pakistan. He has been stalked for years. When the Americans, by order of former President Barack Obama, carried out a commando raid on bin Laden's hideout, they certainly feared retaliation from his organization and his supporters. But al-Qaeda was unable to retaliate. The killing of bin Laden came considering a clear disintegration of his organization under the weight of a relentless war of American drones over Waziristan, where they killed leader after leader among the veteran leaders of "Al-Qaeda". In addition, bin Laden's departure came at a time when the branches of his organization around the world were collapsing one after the other, starting with “the Arabian Peninsula” and ending with “the Islamic Maghreb,” passing through “Mesopotamia” (Jose, 2017).

As for Abu Bakr al-Baghdadi, he was killed on October 26, 2019, in a raid carried out by an American commando on his hideout in “Barisha village” in Idlib countryside. He was hiding there after the “state” he had established collapsed in 2014. A few months before the killing of al-Baghdadi, his organization had lost its last presence on “state” land when the town of Al-Baghouth fell in the countryside of “Deir ez-Zor”. As in the case of bin Laden and Al-Qaeda, Al-Baghdadi's organization, at the time of his death, was suffering a massive collapse. Thousands of its members are imprisoned by the Americans' allies in Syria and Iraq, and the organization's branches around the world are in turn suffering a major and successive collapse. Thus al-Baghdadi died, and his supporters were not yet able to avenge him (Klein, 2022).

In 2020, an American "drone" carried out a strike that killed Qassem Soleimani and Iraqi and Iranian leaders near Baghdad International Airport. The decision to kill Soleimani surprised many, although it was "too late," according to what US President Donald Trump said. The decision to kill was the second of its kind issued by Trump in just over two months (after Al-Baghdadi's decision). In the case of al-Baghdadi, the decision to liquidate the ISIS leader seemed easy. Al-Baghdadi is a "terrorist" who killed American hostages and committed many atrocities that justify his assassination. In the case of Soleimani, too, the Americans were sure that the commander of the "Quds Force" was responsible for countless of their dead in Iraq, attacks often carried out by militias that Soleimani himself supervised support, finance, and train. The only attempt that is known to have targeted Soleimani at the hands of the Americans was in Iraq in January 2007. It seemed that the commander of the "Quds Force" was able to move under the eyes of the Americans wherever he wanted, visiting the battlefronts, and taking souvenir photos with militants working under his supervision by virtue of his supervision. He is a public figure, and his places of transportation are almost known, so his targeting was easy (Bruce, 2020).

## **5. Israeli drones**

When Israel occupied Sinai government in 1967, Egypt deployed SA-2 and SA-3 anti-aircraft systems, this led to losses in the Israeli Air Force and compromised the Air Force's intelligence-gathering power. When Israel tried to find a way to gather intelligence, it reached the UAVs. Then it purchased American-made Teledyne-Ryan Firebee aircraft supplied by the US to scatter and jam the Egyptian side's radar. In 1971, it deployed those planes to Sinai. In the October 1973 war, Israel used the BGM-34A, against the Egyptian missile and armored sites, but it did not achieve the desired result due to the weak capabilities at that time and the presence of the Egyptian missile wall. But it was able to achieve intelligence successes in spying on the Egyptian side, as Israel provided its remotely operated planes with high-tech equipment, which enabled it to transmit high-quality video clips, and enabled the Israeli army to locate the Egyptian forces and was able to watch training exercises The Egyptian army camp and worked to impede communications and booby traps for the Egyptian forces. After the October 1973 war, Israel worked to develop its drone industry, and they commissioned

the Israel Aerospace Industries Company to develop unmanned aircraft that should be of small size and multi-use and be able to work on sending intelligence information in real time when the plane gets the information is not a live broadcast. And it developed drones that could launch deadly attacks. But by the time it had successfully completed the development of IAI and Tadiran in producing Scouts and Mastiff drones, the Egyptian forces had already caused great losses to the Israeli side in the October War and also with international pressure that Israel should withdraw from Sinai, so Israel did withdraw in 1982 and could not use those planes during the battle (Johnson, 2013).

Israel is considered a pioneer in the field of military industries, as it was able to manufacture unmanned aircraft with good control systems. One of those planes is called Harop, it is small, it can maneuver, and also it is undetectable, completely lethal, inexpensive and can complete the mission exactly as specified. The Harop Pie is a weapon system to suppress the enemy's air defenses (SEAD), in which Israeli aircraft disrupt the enemy's air defense network. After the October 1973 war, Israel manufactured its own plane. In the early 1980s, Israeli Air Force drones were flying over Lebanon, surveying Syrian military sites and air defense batteries. But some planes were shot down by Syria, and that was through the network of surface-to-air missile system that Syria installed in those areas. In 1982 hostilities had broken out in Lebanon. Israel then used its drones on a large scale. And she devised a plan to be able to eliminate the Syrian air forces in the Bekaa Valley and called Operation Mole Cricket 19 and she was able to implement the plan within hours. The plan of the Israeli army was to decoy the Syrian air defense, so Israel invaded the Lebanese airspace. missiles. Using the Scout and Mastiff drone, Israel was able to eliminate an integrated air defense network designed and furnished by the Soviet Union. The interference made by the Israeli army to the Syrian radio frequency made it vulnerable, which helped the Israeli Air Force overcome it. The Israeli Air Force deployed drones in the sky over Syrian airports for monitoring. When the Syrian planes flew, the Israeli drones transmitted that information immediately to the orbits, and the orbits directed the Israeli combat drones to immediately engage the Syrian planes. Israel had comprehensive targeting capabilities. For the first time in history, the "Bekaa Valley" was a massacre and advanced combat technological warfare (Rogoway, 2016).



Israel was able to achieve a victory and prove its superiority in military technology and was able to prove its superiority over the Soviet Union, as the planes used by the Syrian air defense were Soviet planes. Israel has been able to prove that drones are a successful technology and of great benefit, both in the process of collecting intelligence information and transmitting that information in real time, or in its ability to fight. After Israel achieved the success of its aircraft in the October 1973 war and the Battle of the “Bekaa Valley”, it worked on developing Israeli drones. Where Israel wanted to make the drone responsible and do everything on its own without referring to the long process that it was doing, where it could by itself control the operation of the enemy’s radars and then send its location to command, and then the leadership controls and directs. Israel was able to achieve this and called the plane Harpy. The Harpy was small and was equipped with a high-explosive warhead and was able to infiltrate and fly over the deployment area of hostile radars and destroy any operating radars or jamming stations in the target area, and that was through its ability to locate, attack and destroy the activated radar, and this is done automatically without human intervention. after being launched (Rogoway, 2016).

After the Iraqi forces occupied Kuwait, the United States of America deployed 6 RQ-2 Pioneer drone systems consisting of 40 drones, and half of these drones were launched from US Navy ships, and these drones were conducting reconnaissance flights in the framework of Operation Desert Shield in year 1990. During the operation to liberate Kuwait, the American forces stationed in the Gulf used the American Pioneer drone to monitor the Iraqi forces to be destroyed by the American Air Force and to determine the damage that was inflicted on the Iraqi military objectives. After the Israeli drones succeeded in the 1973 war in espionage and surveillance operations, and in the Bekaa Valley in 1982 in Syria. In 1995, the United States of America contracted with the Israeli company and purchased a Pioneer unmanned aircraft because it surpassed the American aircraft in development, and nine systems were purchased with eight air vehicles in 1986. The Pioneer is a small-sized aircraft powered by a propeller. But the Pioneer had problems after birth, as many collisions occurred because of electromagnetic interference from other ships. The Pioneer system had other shortcomings. After the Cold War, the Soviet Union collapsed, and the US had to face a new challenge, as the only superpower in the world. The US concentrated its power

against Iraq. The US used most of the weapons it used in the Vietnam War, such as the smart bomb, computer, camera, attack techniques, the F-117 stealth fighter, and Targeted Attack Radar (JSTARS), and unmanned aerial vehicles (UAVs). The Allies waged an air war in Iraq for 40 days and conducted major air battles against the Iraqi Air Force. JSTARS and the F-117 stealth fighter-bomber, their mission was to constantly monitor the Iraqi army and thus its inability to respond. As for the unmanned aircraft, the F-117 aircraft, its mission was to target Iraqi radar stations and missile defenses, and thus the coalition forces were able to gain a breakthrough in the airspace and excelled. The Pioneer aircraft was able to perform combat reconnaissance missions in the 1990-1991 Gulf War. The Pioneer aircraft system was very good and had outstanding performance in Operation Desert Shield and Desert Storm. The system's outstanding performance has made Army, Marine Corps, and Navy commanders highly praised for its effectiveness. The aircraft carrier USS Missouri (BB-63) managed to defend "Failaka Island" off the coast near Kuwait City. Shortly after what happened, with the planes invisible in sight, the USS Wisconsin (BB-64) flew the plane over the island, and the defenders, realizing they were about to be targeted by Pioneer, signaled their surrender using T-shirts and handkerchiefs. At the end of the Gulf War President Bush said, "The F-117 has proven itself by doing more, doing it better, doing it for less, and targeting soldiers rather than civilians. ...carried a revolution in war on its wings." Pioneer drones have been very successful in providing monitoring support for coastal and land targets for the USS Iowa. which effectively destroyed Iraqi forces targets and loosened defenses along the Kuwaiti coast, while also aiding in assessing the damages of Iraqi forces' aerial bombardment (Brown & Smith, 2014).

## **6. The History of Countries with Armed Drones**

After the success of the drone as a weapon of war, in the past several years, many countries have moved towards buying and manufacturing armed military drones, such as: Pakistan, Turkey, Iran, Russia, Taiwan, and India. Rustom-II MALE. Taiwan is in the research and development stage, while Pakistan, Iran, Turkey, and Russia have successfully developed armed drones. Iran first produced armed drones in 2010 and has continued to produce and develop armed drones. (Black, I 2010)

As for the United Arab Emirates, in 2011 it bought the Wing Loong from

China, then in 2013 it bought Predator drones from the US, and then again in 2017, it bought the Wing Loong II from China. (GETTINGER, D 2019)

In 2013 China tested the Sharp Sword aircraft and it was a successful test. China has several models of drones CH-3, CH-4, Wing Loong 1, and Wing Loong 2. (Wong, E, 2013) Italy also has drones it imported from the US, and in 2013 Italy armed MQ-9 Reaper drones with Hellfire missiles after agreeing to The US is at the request of Italy. (Schmitt, E 2012)

As for Spain, in 2015 the US approved the sale of armed Reaper drones to Spain. (CENCIOTTI, D, 2012)

In 2015, Pakistan revealed its armed version of the locally made Barraaq aircraft through a successful strike. In 2016, it purchased a Wing Loong I aircraft from China. Then in 2018, it bought several Wing Loong II aircraft. (Masood, S, 2015)

Egypt and Iraq also imported from China, where Egypt bought Wing Loong I, Wing Loong II, and CH-4 UCAVS aircraft. (ET, 2018) (LIN, J & SINGER, P. 2015)

As for Georgia, it produced the drones locally and revealed its first production aircraft in 2015, and it was an unmanned attack helicopter. (Kucera, J. 2012)

As for Kazakhstan, in 2016 it also purchased two Wing Loong armed aircraft from China. In 2018, Kazakhstan also agreed with Turkey to jointly produce the TAI Anka, a Class III MALE UAV. France also purchased armed MQ-9 Reaper drones from the US, in 2016. (GETTINGER, D 2019)

In 2016, India conducted a test flight of a domestically produced armed drone that is considered a combat aircraft. India ordered Heron planes from Israel in 2015, and got them in 2019, numbering 50 Heron armed planes. (India News 2016)

As for Sweden, Switzerland and Greece, and France, they launched the nEUROn stealth UCAVs, in 2016. As In 2016, the Turkmen army purchased WJ-600A/D armed drones from China as well as CH-3 aircraft (GETTINGER, D 2019)

Saudi Arabia has purchased armed drones from many countries, such as the Wing Loong I and Wing Loong II from China, the Seeker 2 from South Africa, the Camcopter S-100 from Austria, and the RQ-1E Predator XP from the US. (Chuanren, C

& Pocock,C. 2017)

In 2017, Poland worked on developing armed drones. In 2018, Belarus unveiled its armed drones the Yastreb and the Burevestnik-MB. As for Belgium, it purchased armed MQ-9B SkyGuardians drones from the US in 2019. Serbia purchased Wing Loong I combat drones in 2018 from China. Indonesia has produced domestically armed drones and made its first flight in 2020, called the Elang Hitam (or Black Eagle). (GETTINGER, D 2019)

## **IV. TURKISH MILITARY DRONES AND CREATING A STRONGER ROLE FOR TURKISH FOREIGN POLICY IN ITS REGION**

Turkey has managed in the past several years to excel in the drone industry. And now it has become one of the leading countries that export these drones of various uses and different in their forms and effectiveness to many countries. These countries compete as the largest producer and user of this type of lethal aircraft. Turkey has moved from the stage of self-sufficiency in the production of aircraft engines "Drones" to exporting these engines abroad and entering the door of global competition in the field. This paper explains how Turkey not only manufactured and developed drones but also focused its military strategy on its military activity in the fields outside the lands. The Turkish military uses of drones were not only inside the country or in its war against the "PKK" but had an effective and successful role in resolving wars and battles in several other countries such as Syria, Libya, and Azerbaijan. It reviews the Turkish military drone intervention in each of these countries.

### **A. The rise of drones in Turkey**

Turkey has been trying for many years to be a country that is self-sufficient in producing weapons. Turkey is currently considered a rising power in the process of self-sufficiency. The most important characteristic of the great powers is their capabilities and capabilities in providing for their defense needs. Thus, in order to become a superpower, Turkey made every effort to achieve the largest possible degree of self-sufficiency in providing its defense needs and producing weapons and worked to accelerate this. Turkey was able to achieve this during the year from 2010 to 2011, when it was able to assemble 52% of the defense equipment of the Turkish army, and after three years the number increased to 60%. Despite Turkey's attempts to be largely self-sufficient in producing weapons and covering its basic needs for equipment in the production of weapons, it still imports some equipment that is used

in the production of weapons. Turkey is currently considered one of the most important manufacturers of drones of different types and sizes and for various uses. Turkey has become the world's talk now about its distinction and rise in the field of military industries, as the military industries in Turkey have grown during the past twenty years. Whereas most of the military weapons used by the Turkish army are now considered to be locally manufactured, and among the military weapons that Turkey has stepped up and through which the world has become the talk of the world are the drones, as it has become the competition of the major countries in the production of U.A.V aircraft. Such as America, Russia, China and Israel (Rossiter & Cannon, 2022).

At the beginning of 1990, terrorist incidents occurred in Turkey, during which the need for the existence of such type of drones arose, but at that time their number was few in the world, and the understanding of this technology was not yet developed, in parallel with the great developments in the world in the late eighties. Turkey noticed the advantage of this technology and decided to import it. In 1995, Turkey received the first US GNAT 750s drone, which it has used for many years, and is the first unmanned aircraft in the Turkish Armed Forces (Brownsword, 2020).

At that time, Turkey did not have a local production of drones, so it relied at the beginning on other countries. Before Turkey imported the American drone, the British company Meggitt produced the "Banshee" system as the first unmanned aircraft, and the Turkish forces used it in 1989. In 1993, Germany began producing 5 "CL-89" drones for the company "Canadair", which began flying in 1994, was abandoned after a short period due to logistical problems and accidents. In conjunction with the purchase of GNATs, Turkey has begun steps to develop this technology with local resources. In this context, in 1992 the Turkish Aerospace Industries (TAI) developed the "IHA\_X1" aircraft, and produced two of them, but did not continue to produce them. In 1996, the "Turna\_keklik", in 2003 the "Pelikan\_Martı", in 2007 the "Gözcü", in 2008 the "Öncü", and in 2012 the "Şimşek". Finally, the Anka (Phoenix) aircraft, and in 2012, studies for the manufacture of rotary drones began (Aksan, 2020).

The Baykar project was started in 2000 in the southeastern Turkish state of Şırnak by Özdemir Bayraktar and his sons Haluk and Selcuk Bayraktar during a visit to the state's 6th Internal Security Brigade. At that time, officer Melih Kulova, one of

the brigade commanders, showed Özdemir Bayraktar the stories of deaths from the Turkish army, and then told him: "I am working on finding a technological solution to confront terrorism." After the visit, Bayraktar set up a workshop near the brigade on the outskirts of Gabar. The engineers worked under the supervision of Ozdemir and Selcuk Bayraktar for three years in the Gabar Mountain workshop, with the aim of developing defense technology that meets the needs of the Turkish army and turning it into a product. As for the officer, Maleh Kulova, he was martyred in 2007 in the Wilayat of Sirnak, with a remotely detonated bomb by terrorists. When Özdemir was asked about the company's achievements to date, he said, "The success of our work was actually the result of their work (in that workshop), we completed the will of our leader," referring to the officer Melih Kulova. In 2004, Bayraktar Workshop signed an agreement with the Presidency of Defense Industries and the Turkish Aerospace Industries (TAI) to manufacture the ANKA aircraft (Rossiter & Cannon, 2022).

Turkey has sought since the 1990s to acquire drone technology. In 2005, agreements were concluded with Israel to lease a "Heron" aircraft. Turkey returned the plane after three years. In 2007, Turkey purchased a drone from the Israeli company "Aero Star", and this plane was supposed to reach an altitude of 18,000 feet for a period of 6 to 8 hours. But these planes all fell due to inefficiency. Later, Turkey sought to buy 10 "Heron" planes from Israel, worth 188 million dollars, with acceptable specifications, but Israel reduced the maximum altitude of the planes from 30,000 feet to 24,000 feet, and reduced their stay in the air, and delayed their delivery by another three years. Despite all this, the planes were inefficient and broke down and failed during landing and take-off, and they belonged to Israel in everything and sent to it pictures and targets of the terrorist organization PKK that Turkey was targeting (Mansell, 2021).

On time in 2007, the Turkish Armed Forces received the first domestically made drone from Baykar, which has conducted tens of thousands of hours of testing of the home-made drone. In November 2006, the 6th Mechanized Infantry Brigade in Sirnak State requested Baykar to develop a Drones system for use in counter-terrorism operations. In May 2009, the Turkish Air Force Command received from the company the first of its kind in the world, the first of its kind in the world. In 2012, Baykar conducted tests of the Anka aircraft. The Presidency of Defense

Industries signed a contract with the company to receive 10 ANKA\_S aircraft on October 25, 2013, to be received by the Turkish Air Force for the first time based on this deal. In 2007, the Turkish Defense Industries Presidency formed a consortium of companies, to which Baykar also joined, with the goal of developing drones capable of carrying a payload of 35 kilograms, staying in the air for 10 hours at an altitude of 18,000 feet, and reaching a range of 150 kilometers. The first flight of the Bayraktar prototype was successful on June 8 at Kashan Airport in Edirne, northwestern Turkey. It was exported to Qatar at the beginning of 2012. On April 29, 2014, the first flight of the Bayraktar TB2 aircraft, which had the ability to stay in the air for 10 hours, and fly at an altitude of 18,000 feet, was the first flight. And it was tested at Edirne Military Airport, and during the first experiments, it achieved 24 hours and 34 minutes of stay in the air and recorded an altitude of 27 thousand feet. Bayraktar TB2 also set its record for airborne aircraft with a stay of 27 hours and 3 minutes in the air in the State of Kuwait under harsh desert conditions in July 2019. Baykar delivered 104 Bayraktar TB2 drones for the first time to the forces The Turkish Armed Forces in 2015 and is still operating today. Bayraktar TB2 in the operations of the Turkish Armed Forces was able to complete 175,000 working hours by February 2020, with great success, and its exports reached Ukraine and Qatar in 2019, and it was the first Turkish weapon in terms of export (Pamuk, 2021).

Bayraktar TB2 has also participated in several anti-terror operations, including Euphrates Shield, Olive Branch, and Peace Spring, and is continuing its strategic missions in the eastern Mediterranean and in Operation Spring Shield (Witt, 2022). Other companies in Turkey have worked to improve the field of drones. Vestal's defense industries division produced its prototype Efe Mini drone in 2005, but it has not been mass-produced. In 2007, it began developing the "Karayel" drone, which underwent its first test trials in 2009, and decided to mass-produce it in 2010. The "Karayel" project was successful, it flew over Turkey in 2014, and participated in its first military operation in 2016 (Yanarocak & Parker, 2020).

Following the success of the ANKA\_A, the ANKA\_B, which is designed to carry new mission equipment such as high-performance radars, took place in 2015. The ANKA\_S was also designed and made its maiden flight. In 2016, a month after the successful trials of the Anka B aircraft. The Anka B aircraft entered the fleet of the General Command of the Turkish Gendarmerie Forces in 2017 and was used in



the field in April of the same year with the MAM\_L system. In July of that year, the Anka-S aircraft won the title of the first Turkish unmanned aerial vehicle (UAV) to be controlled by satellite, specifically the Turksat 4B satellite. The first batch of Anka-S aircraft was delivered to the Turkish Armed Forces after its testing in 2018. This aircraft constituted a revolution in the aviation and space sector, and also strengthened the industrial system of these aircraft, in addition to its advanced subsystems such as computers, engines and data recording and processing systems. The Anka-S was effectively used in counter-terrorism operations, in internal security operations, as well as in the Black Sea region, in the Aegean Sea, in Syria, Iraq, the eastern Mediterranean, and Libya, and Turkey's eyes and ears were everywhere. Targets were successfully and accurately destroyed whenever needed (Rossiter & Cannon, 2022).

The company "Baykar" continued to successfully perform its tasks in this field and developed other projects to build other types of home-made drones, which made Turkey an important place in the global drone sector. In March 2019, the ANKA Aksungur made its first flight, which has a payload of 700 kilograms, reached an altitude of 40,000 feet, and can stay in the air for 40 hours. Senior sector officials and experts expect this type of drone to achieve an important leap in the air capabilities of the Turkish Armed Forces (Alemdar, 2020).

The testing of the "Bayraktar Akıncı Taarruzi" attack aircraft in late 2019. Which placed Turkey among three countries in the world that manufacture this class of unmanned aircraft, and it has a carrying capacity of 1,350 kilograms, and a take-off weight of 5.5 tons. It is equipped with advanced munitions such as guided missiles, and homemade (SOM) cruise missiles. This advanced aircraft can be controlled from anywhere through superior technology and is characterized by equipping its computers with advanced artificial intelligence systems. Bayraktar has also reduced the payload of Akıncı aircraft by using advanced Gökdoğan and Bozdoğan aerial munitions, which were developed by the SAGE Foundation of the Turkish Scientific and Technological Research Council. TUBITAK (Çetiner, 2021).

Thus, the Turkish private sector has made a resounding lead over its competitors around the world in this high technology. The Sungar Silahlı Drone, the unmanned aerial vehicle control system launched by the Turkish company Assured, provided a unique solution upon its launch. But the "SALGUR" system launched by

the same company also distinguished and attracted attention with its ability to control up to 6 drones simultaneously, transmit live images and determine the path of aircraft, in addition to the ability to recognize faces, read texts, and identify objects and vehicles. The Turkish Armed Forces also use Otonom Döner Kanatlı Vurucu, ALPAGU and Altınay Doğan aircraft in anti-terror operations, and ALBATROS Kargo in cargo shipments (Aksan, 2020).

Through Seljuk Bayraktar, the godfather of drones, the legend and designer of drones, and the husband of “Sumaya”, the daughter of Turkish President Recep Tayyip Erdogan, Turkey was able to become a leading country in the field of drone manufacturing, but also in its resolution of wars and conflicts. At a young age, Bayraktar was able to build models of drones and was very passionate about developing drones. Bayraktar was able to design many aircraft, starting with the Mini UAV. Then he developed a larger plane, the TB2, which was a plane with large wings that carried ammunition, and Turkey used it by targeting leaders from the PKK. It produced TB2s and exported them to many countries such as Qatar, Libya, Nigeria, and Morocco. Turkey concluded a deal with Nigeria on the condition that Turkey would train pilots in the country in exchange for Nigeria getting minerals and natural gas. When Russia invaded Ukraine last February, Ukraine used TB2 drones against Russia, destroyed Russian military defense weapons, and bombed transport trucks to disrupt Russian supply lines (Witt, 2022).

#### **4.2 B. Turkey and the war against the PKK**

PKK has been waging terrorist campaigns against Turkey for four decades. Since its inception in the late seventies of the last century, the PKK has been a thorn in the side of successive Turkish governments. The party, which originated in the ideology of Marxism-Leninism, has waged an armed struggle against the Turkish government since 1984 as part of its efforts to obtain an independent state for the Kurds in Turkey. More than 40,000 people have died since the outbreak of the conflict between the two sides, which reached its climax in the mid-1990s. Thousands of Kurdish villages were destroyed in southeastern and eastern Turkey, forcing hundreds of thousands of Kurds to flee to other parts of Turkey. The research reviews the organization of the PKK, history and terrorist acts, and the role of the Turkish drone in the war against the PKK.

## 1. What is the PKK organization?

The party is listed as a "terrorist" organization in the US, Turkey, and the European Union. It is a left-leaning nationalist Kurdish political party. After its establishment, it turned into the most important political organization that leads an armed action, where it embraces the doctrine of violence. He enjoys the sympathy of many Turkish Kurds, workers, intellectuals, and peasants. PKK was secretly founded in 1978 by a group of Marxist students who were not influential in the Kurdish political arena, including Abdullah Ocalan, who was chosen as the party's leader, but the number of the party's members exceeded ten thousand fighters in the nineties. The organization initially sought to establish a joint independent entity in the Kurdish-controlled areas of Turkey, Syria, Iraq and Iran. The party adopts the Marxist-Leninist orientation, adopting the policy of violence in orientation. Among his core goals, which he announced at the beginning, is "the establishment of the independent Greater Kurdish State" (Zeidan, 2019).

## 2. Terrorist activity of the PKK

Since 1984, PKK launched its first terrorist act against Turkey where they targeted facilities, civilians, and government officials. The amount of violence during the year 1984 to the beginning of the nineties increased sharply. Whenever the PKK wanted to put pressure on Turkey politically, it would carry out intense terrorist activity to force it now to a political settlement. In 1985, Abdullah Ocalan established several Kurds (the Kurdish Parliament) to send them to Europe in order to obtain legitimacy and international recognition, and also to gain international pressure on Turkey for their political interests (Ünal, 2016).

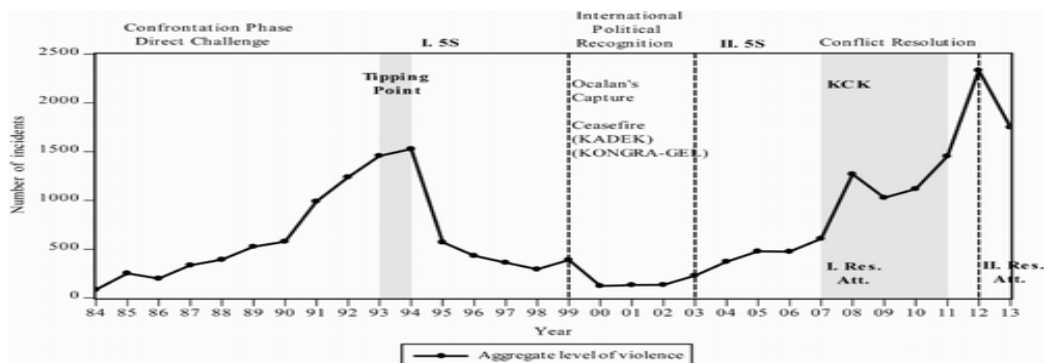


Figure 1 Incidents of PKK terrorist attacks and counterterrorism operations

Source: <https://www.tandfonline.com/doi/full/10.1080/14683849.2015.1124020>

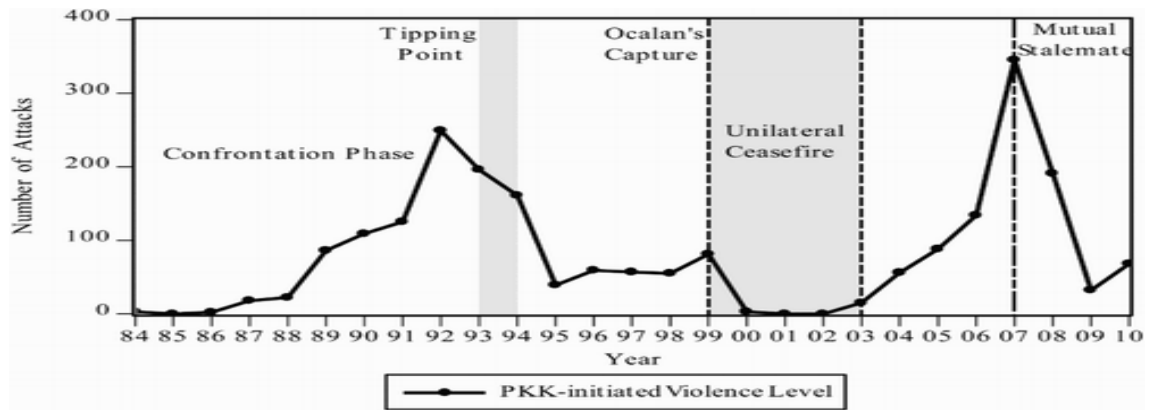


Figure 2 PKK terrorism (1984–2010)

Source: <https://www.tandfonline.com/doi/full/10.1080/14683849.2015.1124020>

The PKK resorted to carrying out various forms of terrorism. It provokes the ruling authority at the time through terrorist acts and intimidating the population. The eighties and nineties of the last century witnessed the bloodiest period of terrorism, which tracked down the militants, and was accused of destroying thousands of Kurdish villages and displacing many families to Turkey. Terrorist acts of the PKK were not limited to the Turkish army, but also included Turkish and Kurdish civilians, especially those collaborating with the Turkish government, as well as some foreign tourists. They have dealt blows to some Turkish interests in Western countries (Ünal, 2016).

Abdullah Ocalan was arrested when he was heading to the airport in the Kenyan capital, Nairobi, on February 15, 1999, after 15 years of terrorist action for being convicted of "betraying the country." He was sentenced to death in June of the same year, then the sentence was commuted from execution to life imprisonment. In March 2013, PKK officially announced a ceasefire, following Abdullah Ocalan's call to end. From his imprisonment, Ocalan called on to stop the fighting and withdraw from Turkey. "Today is the beginning of a new era, in which politics must prevail over weapons," he said in a message read in Diyarbakir, in the southeast of the country, adding, "Now we have reached a stage where armed elements must withdraw outside Turkey's borders." The period did not last long as PKK resumed terrorist acts and Turkish cities witnessed terrorism between 2014 and 2016 targeting institutions and tourist areas that left dozens of wounded and dead. But after the July 15 failed coup attempt in Turkey, the government arrested many opponents of it and launched a campaign against any critics of it, including the PKK, and it became more

resolute in the issue of its national security and launched an attack to drive the terrorists out of the region, and prevented anyone from allying with the PKK. The Turkish government has continued to counterterrorism operations of the PKK on a continuous basis to maintain its security, and it has continuously and actively maintained its military presence (Zeidan, 2019).

### **3. The role of the Turkish military drone in significantly reducing PKK terrorist attacks**

Turkey has tried in the past to import drones from abroad or from countries that manufacture them, which has proven its superiority. For example, it requested drones from America, but the US Congress refused to supply drones to Turkey, because Turkey needs drones to be used in the war against the PKK and attacks from Syria and Iraq that threaten Turkey's security by the groups that America did not classify as a as terrorist organizations. Turkey tried again to import drones from Israel after it proved its success in the wars it carried out, but Israel took many years until it sent the Israeli drones to Turkey, but Turkey found that the planes have technical malfunctions and do not rise indefinitely. At that time, Turkey decided to turn to the manufacture of homemade aircraft, and it proved successful.

Turkey has changed its military strategy and has incorporated drones into counterterrorism operations because they are low-cost weapons and tools and enable them to gather intelligence in real time and to enable them to carry out precision strikes. Turkey began using the Turkish armed military drone in the counterterrorism against the PKK terrorist organization in 2015. The Turkish drone had a very effective role against the terrorist organization, as the drones restricted the movement of PKK fighters, and drones also had a strong role in the intelligence operation, which carried out immediate monitoring and was sending reports to the Turkish side about the movements of the PKK terrorists enabled the Turkish armed forces to identify the locations and hideouts of the PKK terrorists. The Turkish military drones were able to track down and target the senior cadres of the PKK, including Sofi Nouredine, the so called head of the PKK in Syria. Turkish drones targeted and killed him. Turkey has targeted and killed many PKK terrorists with Turkish drones like Salman Bozkur. He was working in illegal trade in Iraq and then became the head of a drunken camp in Iraq affiliated with the PKK. Turkish drones have the ability to identify the characteristics of fighters, the drone, through the screen in

which it is located, evaluates the behavior patterns of individuals, and sends information directly to experts, who can distinguish between fighters and civilians. Through this technology, it was able to carry out successful military operations, for example, in the Ghar region of northern Iraq, it carried out an operation targeting 5 terrorists of the PKK (Cantenaar, 2021).

Turkey's strategy against the PKK after 2015 was to launch drone attacks due to the weakened attacks. In its military strategy, Turkey was interested in military aviation, and was able, through domestically made drones, specifically, to excel in the air. In 2017, Turkey implemented its offensive plan. It carried out offensive operations inside and outside Turkey to combat terrorism. Several Turkish drone strikes have been carried out on PKK bases in northern Iraq and northern Syria in areas, camps and hideouts of PKK terrorists. The strikes were to the point because they were the center of gravity. Most of the bases of the PKK were concentrated in those areas where they were setting up their bases and training camps and also storing their weapons in the steep terrain and places between Turkey and Iraq that were difficult to penetrate from the ground Turkish armed forces, and therefore these places were providing safe places for the PKK terrorists. Where the mountains and highlands are located from the Iraqi Iranian border towards the Turkish-Iraqi border. It helped the PKK to establish its bases there such as Qandil, Hakurk, Zap, Avashin Bassian, Matina, Hevtanin, Sinat, Gara, and Sinjar. But Turkey was able, through locally made drones, to launch targeted strikes on those places and hideouts, as they were the logistical and geopolitical hub for the PKK terrorists because it is between northern Iraq and northern Syria. Turkish military forces have not only expelled the fighters from their hideouts but also established checkpoints backed by Turkish drones. Where the Turkish forces can easily monitor the movements, these operations with military drones have enabled Turkey to militarily outperform the PKK. Through the drones, it was able to reconnaissance, surveillance, monitoring and destruction of the bases and the PKK terrorists, and it was able, through reconnaissance operations, to provide support to the Turkish ground forces, and thus helped them in targeting the fighters (Öztürk, 2020).

The Turkish drone had a major role in monitoring the terrorist acts of the PKK along the border, which enabled the Turkish military forces to achieve military success against the PKK terrorists continuously. The Turkish drones contributed very

successfully and greatly to the success of preventing the PKK terrorists from establishing camps for them or creating places to hide, and even were on the lookout for them, as they prevented them from infiltrating and entering Turkey. The Turkish military forces were able, through the Turkish drones, to carry out two military operations using the Turkish military drones against the PKK, these operations were in northern Syria and northern Iraq in the year between 2018-2019, the operations were Operation Olive Branch and Operation Peace Spring. The purpose of these operations by Turkey was to help it prevent the PKK terrorists from establishing a corridor along the Turkish-Syrian border. And it was able to reduce the number of PKK terrorists and terrorists by 83% (Pusane, 2021).

The Turkish military forces were able to eradicate and expel the PKK terrorists after the attacks launched by the Turkish drones on the camps of Hakurk, Heftanin, Matina, Avashin Bassian and Sinat. This made the Turkish Air Force largely overcome the hideouts and training places of the PKK terrorists and made them unable to launch any attacks against the Turkish side (Ozkizilcik, 2021).

The Turkish military drones had the greatest credit for the victory in their military operations against the PKK. The drones carried out intelligence operations from reconnaissance and knowledge of the locations of the combatant members, as well as sending reports in real time, which helped the Turkish armed forces from the attack. It prevented her from setting up new camps. It targeted the major leaders or the head of the party and thus weakened it. If a comparison is made between combat drones and helicopters, attack drones cost less in their sorties than helicopters. Also, drones are difficult for fighters to detect and thus bring down, unlike helicopters, and it is also difficult to monitor them through weapons or other devices. The drone also reduces human losses, as if the drone falls, there will be no casualties, death, or hostages. The planes could also have slowed the defense of the PKK terrorists (Öztürk, 2020).

## **B. The role of Turkish military drones in Syria, Idlib**

The year 2011 witnessed the so called 'Arab Spring'. When the Arab Spring took place in Tunisia and overthrew Ben Ali, then it flared up in Egypt and overthrew Mubarak, then it moved to Syrian demanding freedoms and rights first but evolved to demand the overthrow of Syrian regime.

## **1. The situation in Syria**

The response of Syrian's government to the demonstrators was never peaceful, as the number of deaths, detainees and enforced disappearances increased dramatically. Until this time, it did not indicate the path of those who were forcibly disappeared. After the Syrian government's harsh response to the demands of the Syrian opposition, the situation in Syria turned into a civil war, as the Syrian opposition realized that peace with Syrian regime was futile, so the situation worsened, and opposition factions supported by the US in the first two years formed the Free Syrian Army, which was leads the opposition. Although the Free Syrian Army was armed, it was the only armed group with legitimacy in Syria. But later, DAESH emerged in Syria to join the civil war. It was able to control areas previously controlled by the Free Syrian Army. It emerged after the US of America stopped its support for the Free Syrian Army and became supportive of the PKK and the Syrian branch YPG. Later, Russia and Iran joined in intensively supporting the Syrian regime against the armed groups in Syria and the opposition factions. Turkey was supporting the Arab Spring revolutions and their demands. Where in 2016, Turkey and the Free Syrian Army conducted Operation Euphrates Shield (ESO) in Syria, which was against DAESH and against the PKK. The Free Syrian Army was able to obtain once again the areas that had been seized by terrorist groups, such as the Aziz-Jarablus-Al-Bab line (Güler & İpek, 2021).

Russia realized that Turkey's support for the opposition factions was a danger to it. Because it does not want the opposition factions to triumph over the regime of Syria, as it had fears that the opposition would come to power with the support of Turkey. Russia decided to make an agreement with the Turkish government. That is, a cease-fire agreement is signed between Turkey and Russia in Syria. In 2017, Russia, Turkey and Iran signed the "Astana" agreement and declared de-escalation zones, which aimed to reduce the area and reduce the degree of conflict in Syria (Bakeer, 2020).

At the time, Turkey was considered the protector of the opposition factions in Syria, and among the de-escalation zones was the city of Idlib, which was also considered by Turkey as its protector. Turkey carried out Operation Olive Branch to secure the area. It launched a drone attack on the areas controlled by the PKK and was able to prevent the PKK from controlling the coast and prevented the PKK



terrorists from building a corridor. Along the Syrian-Turkish border. It secured its borders and secured the city of Idlib (Pusane, 2021).

The agreement on the boundaries and conditions of the de-escalation zone in Idlib was reached in Turkish-Russian talks in Sochi, September 2018. The official text of the Sochi Agreement was not published by any of its parties, but some of the understandings included in the agreement were known directly or indirectly. The agreement includes that the Syrian regime will be prevented from displacing millions of Syrians towards the Turkish border (Bakeer, 2020).

## **2. The Syrian government's attack on Idlib**

In 2020, the Syrian government forces, with Russian and Iranian support, launched an attack and regained many areas that they had lost after the outbreak of the Syrian revolution. The opposition factions were left with only some scattered areas, especially in Idlib governorate in the north of the country. Despite Turkey's efforts to limit the Syrian government's attacks on civilians by signing agreements to reduce escalation in Astana in 2017, and in Sochi in 2018, the regime forces launched several attacks, during which they were able to nibble the areas subject to the gradual de-escalation, and it became clear that the regime, and from Behind him, Russia and Iran, they bypassed those agreements, and they took advantage of them to prepare for new military operations to liquidate what was left of the Syrian revolution. Indeed, the opposition lost areas such as Eastern Ghouta in Damascus, Daraa in the south, and the northern countryside of Homs, and the Syrian government relied on a scorched-earth strategy, by launching air strikes and targeting hospitals and power stations to force the opposition's militants to withdraw, given that it does not have aircraft or air defense systems. These attacks resulted in the displacement of hundreds of thousands, who preferred displacement to remain under the control of the regime, since the latter usually launched massive revenge campaigns from the population and forced young people in those areas to recruit in its ranks, and therefore the displaced crowded into the rest of Idlib governorate. But the regime forces then launched attacks to regain control of the entire province, and indeed entered the city of Saraqib, Maarat al-Numan and other large areas in early 2020, which would have meant a major humanitarian catastrophe, as it would have meant the displacement of millions to the Turkish borders, as well as thousands of casualties (Güler & İpek, 2021).

### **3. Turkish counterterrorism operation in Idlib**

For these reasons, the Turkish counterterrorism operation in February 2020 gained great importance in thwarting that plan. At the dawn of March 1, 2020, Turkey launched Operation Spring Shield in the Idlib region, northwest Syria. The operation came weeks after the large Turkish military build-up in the vicinity of the Syrian governorate, or what was left of it under the control of the armed opposition, weeks after the advance of the Syrian government forces and associated militias in what has been known since September 2018 as the de-escalation zone. The operation also came just two days after the Syrian government forces targeted a Turkish mobile military convoy in the vicinity of Idlib, leaving 36 dead and dozens wounded among the ranks of the Turkish force. The offensive of the Syrian government forces gave Turkey a strong boost to Ankara's announcement of military intervention. The de-escalation zone, which Turkey participates in supervising, included most of Idlib governorate, parts of the northern countryside of Hama and the south-western countryside of Aleppo, provided that Turkish military observation points would be established in the entire vicinity of the area to ensure the ceasefire and the implementation of other understandings regarding the area. And because the region embraces not only its residents, but also hundreds of thousands of displaced people from other Syrian regions, the security and safety of the population has become a vital issue for Turkey, which fears the influx of another wave of Syrian refugees across the border, in addition to the three and a half million Syrian refugees, which it has been hosting for years. Ankara also fears that the loss of Idlib may lead to a Syrian-Russian demand to evacuate the areas under direct Turkish administration in Al-Bab, Jarablus, Afrin and east of the Euphrates, which will lead to a direct threat to Turkish national security, if Syria remains an arena of conflict and the armed groups linked to the PKK remain. Active in more than one Syrian region. However, the regime forces launched several attacks, during which they managed to nibble the areas subject to the gradual de-escalation, and it became clear that the regime, and behind its Russia and Iran, exceeded those agreements (Bakeer, 2020).

### **4. Turkish military drones in Idlib**

Turkey did not withdraw and decided to respond to these attacks. Where the Turkish military forces carried out “Operation Spring Shield” and carried out a large-scale bombing of the sites, mechanisms, camps and warehouses of the Syrian

government forces and the associated Iranian militias, Turkey launched this bombing using and relying mainly on Turkish military drones in aerial bombardments. Although Russia controlled the Syrian airspace, due to the genius of Turkish aircraft, Turkey was able to largely destroy the equipment, devices and weapons of the Syrian military forces affiliated with the Assad regime. It used Turkish Anka-S and Bayraktar (UCAV) aircraft, both of which are Turkish-made. Bayraktar is the most famous Turkish-made drone because it is considered a tactical aircraft. The Turkish military has used the Anka-S aircraft for surveillance, espionage, and attacks as well because it is considered more flexible than Bayraktar. Turkey's losses in its drone during Operation Spring Shield are considered very small. The Turkish bombardment inflicted heavy losses on the Syrian government forces, Hezbollah members and the Shiite militias led by officers from the Iranian Revolutionary Guards, weakening these forces and their ability to fight and withstand (Crino & Dreby 2020).

At the time, the Turkish Minister of Defense, Hulusi Akar, who was also the Chief of Staff of the Turkish Army before his appointment as Defense Minister, and who is supervising the "Spring Shield" operation, said that the goal of the operation is to secure the Turkish observation points, secure the borders, and maintain the security and safety of civilians in Idlib, forcing the regime to respect the Sochi Agreement and return its forces to behind the de-escalation zone lines (Daily Sabah, 2020).

The Turkish Air Force launched an air attack with Turkish military drones for three days against the Syrian and Russian military forces. The Turkish Air Force showed great efficiency, revealing superior firepower. The Turkish drones were able to prove and achieve a resounding success in that operation, as Turkish drones shot down two Sukhoi planes of the Syrian government without penetrating Syria's airspace. Then a third warplane was shot down. The Turkish drones destroyed dozens of tanks, fighting vehicles and self-propelled guns. This led the regime to retreat from deploying its air force on the battlefield, and Turkish fire control helped the armed opposition forces advance on more than one active frontline, including Jabal al-Zawiya, southern Idlib, and Aleppo countryside. Monitoring Syrian military contacts carried out by opposition groups revealed great panic among the regime forces and the militias associated with it. The regime and the Shiite militias, under

heavy Russian air cover, attempted to retake the city of Saraqib. But the attempt faltered, after the opposition militants inflicted heavy losses on the regime forces, backed by Turkish drones (Roblin, 2020). The facilities of the Syrian Nairab military airport were destroyed, and the airport was completely out of action (Haaretz, 2020).

The Iranian Center for Military Advisers in Syria issued a statement blaming Turkey for targeting the sites of Shiite militias led by Iranian advisors. What was understood from the Iranian statement is that Iran and its allies are determined to continue participating in the Syrian government's military efforts (Rudaw, 2020). Moscow also issued A vague statement on the evening of the first day of the Turkish operation says that Russia will not be able to guarantee the security of Turkish aircraft after Damascus announced the closure of the airspace in the de-escalation zone, and what was understood from Moscow's statement that Russian aviation will return to flying in the de-escalation zone and providing support to the regime forces after the absence of The first five days, which will make it difficult for Turkey to target the planes of the Syrian government, or for Turkish aircraft to fly in the skies of the de-escalation zone (Reuters, 2020).

Turkey was able to achieve a victory using Turkish military drones over the Syrian forces backed by Russia and the Shiite militias. It also forced the regime to stop its military campaign and sign a ceasefire agreement in March 2020, in addition to providing for the protection of civilians, an end to their suffering, and the delivery of humanitarian aid to the displaced. Several displaced people have returned to their homes. Turkey has warned the Syrian government against violating that truce and has threatened to intervene more than once if that happens (Roth, 2020).

The Turkish intervention also created an image of Turkey as a protector of civilians, while the regime did not shy away from killing and displacing its citizens. The bombing of Turkish drones by the regime forces, as these scenes were unfamiliar to the regime forces, which have been practicing this action against civilians by bombing them with barrel bombs for years, considering the civilians' inability to respond.

Through the domestically made Turkish Anka-S and Bayraktar TB2 drones, Turkey was able to turn into the second largest user of drones in the world. Turkey, in Operation Spring Shield, presented the world with a new military genius and doctrine. Turkish homemade drones were able to overcome the enemy's defenses and

inflict great damage on it, and this was without the need for a large air force. Turkey launched a powerful air attack without breaking into Syrian airspace, using radar-guided missiles. The drone strikes were very accurate, good, and accurate. Turkey's powerful air offensive against Syrian's regime has put Russia in a very awkward position. Because the systems and technology used by the Syrian defense system are Russian made. This put Russia in a position of humiliation because Turkey was able to outperform the Russian Pantsir system. The Russian defense system is characterized by being of high accuracy because it was designed to protect air and land facilities targeted by enemy air attacks. The Turkish drones were able to destroy the Pantsir system forcefully. This strengthened the Turkish domestic drones, and distorted Russian defense technology not only to Turkey and Syria, but to the world, because many countries around the world have purchased the Pantsir system from Russia. The success of Turkish drones in Operation Spring Shield in Syria is credited to the KORALEWS system, which was developed by Turkey's ASELSAN. As the KORAL system is considered to have multiple functions, as it can perform difficult and complex operations, it determines the direction of different types of radar signals at the same time and is also based on its classification and to which party it belongs. The KORAL system uses deception, confusion, and paralysis of the enemy's defense systems. In this way, Turkey was able to surpass the Russian defense technology, as Turkey blinded the Russian radar systems (Bakeer, 2020).

### **C. The role of the Turkish drones in the Libyan civil war**

The situation in the countries of the Arab Spring revolutions before the revolutions was suffering from dictatorial governments and the suppression of freedoms, and it was devoid of any human justice. Therefore, the so called 'Arab Spring' took place to improve the situation in the country. The beginning of the flame was from Tunisia, and Tunisia was able at that time to overthrow the Tunisian government, then it moved to Egypt and the people were able to overthrow the ruling regime. Then the revolution moved to Syria, but it was not a successful revolution. Rather, the situation turned for the worse, and it was the beginning of a new civil war. Bashar al-Assad did not tolerate peaceful demonstrators.

Then the revolution broke out in Libya and lasted for a while until it was able to overthrow the regime of Muammar Gaddafi, who ruled the country at the time, but it also turned into a civil war.

The Libyan revolution began peaceful, but the regime's repression prompted it to take up arms and internationalize, as the peaceful demonstrations of Libyan cities demanding freedom and change had turned into an armed uprising in response to the armed repression of Gaddafi's forces. After the massive number of weapons attacks launched by Gaddafi against the opposition, the Security Council passed a law imposing an embargo on Libya, for example establishing a no-fly zone to prevent Gaddafi from launching attacks against the opposition. The decision led to the ban on flights, only flights carrying humanitarian aid were allowed. The Security Council froze all the assets of the oil and the Central Bank. He paved the way for the international military intervention against Gaddafi. Indeed, the international military intervention led by NATO took place from March 2011 until October of the same year with the death of Gaddafi (Özpek & Demirağ, 2014).

### **1. The situation in Libya after the fall of Gaddafi**

Almost a year after the fall and death of Muammar Gaddafi, the General National Congress was elected to replace the Transitional National Council, which was established after the fall of the Gaddafi regime. But the General National Congress failed to establish security stability for the country. Various other militias took over parts of the country and declared them the de facto rulers of those parts. By the end of 2015, Libya had two parliaments and two governments. In contrast to the pro-Islamist legislative and executive authorities in Tripoli, I worked in Tobruk (eastern Libya), with the support of the army of Khalifa Haftar, a former general in Gaddafi's army, an internationally recognized government and parliament elected in general elections. But in 2016, the Government of National Accord was established, which is supported by the United Nations, headed by Fayeze Al-Sarraj, which began its work in the capital, Tripoli, in March of the same year. The United Nations and the European Union signed a statement supporting and confirming that the Government of National Accord is the legitimate government in Libya. It was not only the United Nations and the European Union that supported the Government of National Accord, but also Italy and Turkey. In 2017, Turkey sent weapons to Tripoli to the Government of National Accord to support it against Haftar. On the other

hand, the United Arab Emirates (UAE), Egypt, Saudi Arabia, and Russia were providing military support and assistance to Haftar in order to achieve victory and overthrow the Government of National Accord. These countries have provided military support to Haftar despite the embargo, which called on Turkey to provide support to the forces of the Government of National Accord (Tekir, 2020).

Libya is very important to Turkey, as in the old days Libya was part of the Ottoman Empire. The oil and gas in Libya are important to Turkey. Economically, there is trade between Turkey and Libya, as the trade price between them is two and three billion dollars annually. Turkey is also a major ally of the Government of National Accord. Turkey is also interested in the Libyan revolution by demarcating the border with Libya (Shay, 2019).

## **2. The civil war in Libya and the role of Turkish drones**

The militias of retired Libyan Major General Khalifa Haftar launched a massive air attack on the capital, Tripoli, in April 2019. These air attacks took place with the help and support of Egypt, the UAE and Russia. To control the entire country. This led to the outbreak of battles that affected tens of thousands of civilians. Haftar's forces were a few kilometers away from the center of the capital to the extent that intelligence sources spoke of a plan to evacuate members of the Government of National Accord (GNA) from Tripoli, after the superiority of Haftar's militias, backed by Russian Wagner Group mercenaries, in addition to the support they receive from Egypt, the Emirates, France and Russia (Shay, 2019).

But the course of the battles changed after the intervention of Turkish drones, as Turkish drones were able to resolve the war in Libya, according to the military agreement between the internationally recognized Government of National Accord and the Turkish government, in addition to the signing of an agreement to demarcate the maritime borders in the Mediterranean between Turkey and Libya, i.e. between the President Erdogan and the internationally recognized Government of National Accord, as shown in Figure 4.4, an agreement that Turkey has long sought since before the outbreak of the Libyan revolution. The border demarcation agreement is important for Turkey because it gives Turkey the political and legal right in the eastern Mediterranean and also guarantees its rights When its own ships are excavating, Greece also prevents it from demarcating the borders with Egypt and

Greek Cyprus because this will make the Turkish region located on the Gulf of Antalya short, and also that the border demarcation agreement is important for Turkey because it will increase its influence on the geopolitics in the eastern Mediterranean and will thwart plans to isolate Turkey, just as the agreement makes Turkey a trump card in any upcoming dialogue regarding its rights as well as the future of Libya. B to pass through Turkey because it is considered the safest and safest option after attempts to deprive Turkey of linking the eastern Mediterranean gas fields to European markets. Figure 5 shows cooperation in the field of gas in the eastern Mediterranean. Turkey was the only country officially recognized for its intervention in Libya. Turkey has provided military aid to the Government of National Accord, such as armored vehicles, anti-armor missiles, and drones; This is according to a joint defense agreement announced by Erdogan, in July 2019, when he said: "We have concluded a military cooperation agreement with Libya, and we will provide them with weapons if they request and pay for them, as they have faced a problem in terms of meeting their defense needs." This agreement allows Turkey to build military bases in Libya, and Turkey can be allowed through that agreement to use the Libyan airspace, and Turkey can also, through that agreement, enter Libyan regional waters (Al-Rantisi, 2019).



**Figure 3:** A map showing the maritime areas agreed upon between Turkey and Libya, in addition to the economic zones of other countries

Source: <https://studies.aljazeera.net/ar/reports/2019/12/191212101941157.html#a11>



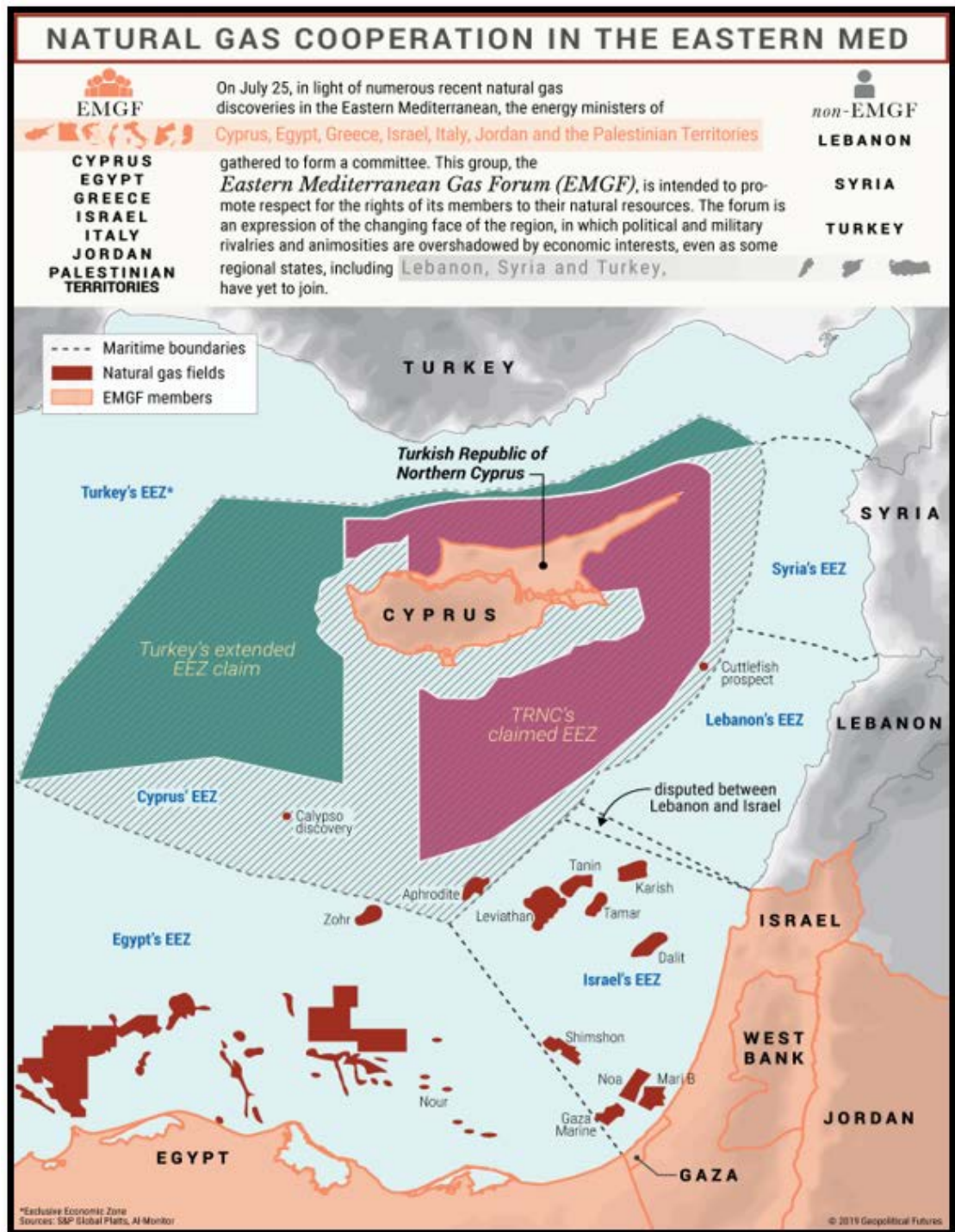


Figure 4: Cooperation in the field of gas in the Eastern Mediterranean

Source: <https://studies.aljazeera.net/ar/reports/2019/12/191212101941157.html#a11>

### 3. Turkish drones in the war in Libya in favor of GNA

Turkish-made drones played a major role in the Libyan war, as they are considered the main reason for the success and superiority of the Government of National Accord over Haftar. Where it was able to resolve the battle in favor of the

Government of National Accord. Libya is considered a desert country, so land defense weapons will not have a good result compared to air defense weapons, Salah Bakush, a Libyan political analyst, and former advisor to the Libyan Supreme Council of State: "Libya is a vast country with open spaces and semi-desert areas even in coastal areas where no one can hide movements Troops. In this case, you need a lot of air cover to survive militarily. If you don't have air cover, you will be easily rammed by the other side with better air power. That's what happened to us until we got the Turkish drones." Speaking of the Turkish drones Turkey sent to help Tripoli, Fathi Boushagha, who was the interior minister in the Government of National Accord, said: "We rescued the Turks at the right time." Officials in Libya admitted that had it not been for the intervention of the Turkish Drones in the war, the war would have been resolved in favor of Haftar and his supporters, as before the intervention of the Turkish Drones, the air forces of Haftar or those supporting him were able to destroy and cause great chaos in the forces and lives of the Government of National Accord. But the Turkish Drones intervened at the right time and were able to resolve the battle in favor of the Government of National Accord, which was on the verge of losing had it not been for the Turkish Air Force and the Turkish Drones. This enabled the Government of National Accord to control a number of Libyan cities. Like what happened in Syria, Turkish air attack systems and Turkish drones were able to destroy the highly accurate Russian Pantsir air defense system, and even blinded it and launched attacks on it, enabling it to destroy it completely. The Turkish drones also destroyed a wide range of sites, fortifications, weapons, and systems affiliated with Haftar's militia, forcing it to withdraw permanently from its positions south of Tripoli, in addition to the Al-Wattia base and the city of Tarhuna (Sofuoğlu, 2020). This forced Haftar and his supporters to establish a permanent armistice in October 2020, as the Libyan parties engaged in political negotiations, which made great progress, represented in setting the dates of the elections, approving the constitution, and electing a new executive authority (Aljazera, 2020).

During those months, Haftar's militias tried to abort any political progress and threatened to continue the battles. Haftar threatened to target the Turkish forces operating in Libya, but Turkey issued warnings that led to Haftar's retreat from his plans. About her soldiers and her allies (Güler, 2020). In the end, the Government of National Accord was able to achieve victories thanks to the military support and

military air support through the Turkish-made drones that Turkey sent to the Government of National Accord and enabled it to regain some Libyan cities and defeat Haftar and his supporters Egypt, the Emirates and Russia and destroyed the Russian defense weapons and thwarted any hopes They must conquer Tripoli.

#### **D. The role of the Turkish Drones in the Armenian-Azerbaijani war**

The conflict between Armenia and Azerbaijan dates to the dissolution of the Soviet Union, as Nagorno-Karabakh is a disputed region between the Azerbaijani and Armenian governments. The conflicts between Armenia and Azerbaijan are due to religious, ethnic, and national reasons, borders and institutions, as well as factors related to the Soviet past (Smith, 2003). Despite the many attempts to try to find a solution to the conflict between them, including the attempt to reform step by step and a comprehensive solution, as well as the solution of the joint state, as well as the integration of Nagorno-Karabakh into Azerbaijan and granting it autonomy. Unfortunately, none of the attempts or solutions succeeded (Carter & Turnock, 2000) Azerbaijan and Armenia concluded an armistice in 1994, as the Minsk Group of the Organization for Security and Cooperation in Europe (OSCE), headed by the US, France and Russia, made attempts to find a solution and mediate but did not The problems between Armenia and Azerbaijan end despite the existence of the armistice and despite all the mediation and the proposals of the Minsk Group (Askerov, 2020), but there were also major clashes between them in 2016, which was called the “Four-Day War” (Shiriyev, 2017).



Figure 5: Map showing the places controlled by Azerbaijan and Armenia from Nagro-Karabakh

Source: <https://www.bbc.com/news/world-europe-54323553>

In 2020, there were clashes between Armenia and Azerbaijan due to the dispute over the control of Nagorno-Karabakh. The clashes lasted about 40 days and led to many deaths and casualties on both sides. Azerbaijan seized the city of Shusha, which is of strategic importance, and withdrew from the entire Karabakh region. Armenia was able to win the battle in its favour, and they concluded a peace treaty. The agreement gave Azerbaijan the right to keep the regions of Fuzuli, Gabriel, Zangelan and Kobatli, which it liberated from the Armenians, and made Armenia withdraw from the cities of Agdam, Lachin and Kalbajar. Azerbaijan was able to restore and liberate 7 regions of the Armenians (Caliskan, 2020).

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### **1. Turkish role in Azerbaijan-Armenia war**

Azerbaijan has strengthened itself militarily before the 2020 clashes, as it increased support for its ground forces and worked to strengthen the structure of its air force, importing drones, attack helicopters, mortars, rocket launchers, anti-tank missiles and ballistic missiles, in addition to various air defense systems, support aircraft and combat tanks as well (Özgen, 2021). Because the Minsk Group could not implement the Security Council resolutions on the territorial integrity of Azerbaijan and the failure of all negotiations that lasted for thirty years, and also because of the Corona pandemic, countries gave priority to COVID-19 and ignored the issue of Azerbaijan and Armenia. Azerbaijan has lost confidence in the international community. At this time, Turkey appeared and provided support to Azerbaijan (Gundem, 2020).

Despite the old war between the Armenians and the Azerbaijanis, they could not resolve any conflicts in the past because both depended on the Soviet military legacy of the last century. But what turned the scales of the game was that Azerbaijan decided to use modern weapons and military equipment instead of the Soviet heritage, while Armenia relied on this legacy in the war. As Azerbaijan has relied on the senior Turkish military in its strategies and in the plans and operations carried out by Azerbaijan. Azerbaijan was able to excel militarily because of direct Turkish support. Turkey and Azerbaijan have a special relationship between the two countries based on ethnic, cultural, religious and linguistic affiliations, and Azerbaijan is a strategic partner for Turkey, so Turkey has increased Azerbaijan with all its military resources (Kramer, 2021).

The military support provided by Turkey to Azerbaijan is the main reason and the most important factor in resolving the conflict between Armenia and Azerbaijan

in favor of Azerbaijan. Turkey provided military support to Azerbaijan in accordance with the Strategic Partnership and Mutual Assistance Agreement between them. Turkey and Azerbaijan pledged to exchange all means in case of aggression, threat or attack from any third party. They signed this agreement in 2010. Based on this agreement, Turkey provided political support military and diplomatic for Azerbaijan. Turkey has given statements that it will provide all support to Azerbaijan so that it can resolve the conflict in its favor (Yalçınkaya, 2021).

## **2. The role of the Turkish drones in resolving the II Nagorno-Karabakh War**

The Turkish-made drones were able to resolve the conflict in favor of Azerbaijan, and they had a major role in the offensive operations against the Armenian forces. Turkish drones were also able to play a prominent role in the war and made Azerbaijan win the war (Gatopoulos, 2020). Azerbaijani President Aliyev himself praised Turkish drones as paving the way for Azerbaijan to win the war and praised Turkey's strength and military capacity. Many analysts also emphasized that Azerbaijan was able to win thanks to Turkish military technology and tactics (Synovitz, 2020). According to several reports, military analysts emphasized that Azerbaijan was keen to use Turkish drones because it knows that it will win the war on Armenia, and that the drones will give Azerbaijan a military balance in its favor in the region (Ozdemir, 2020). Turkey presented a complete robotic warfare doctrine to the strategic partner Azerbaijan and the concept of operation (CONOPS), and also gave it Bayraktar TB2 (Kasapoglu, 2020).

Through the Turkish TB2 drones, Azerbaijan managed to attack the enemy defenses in Nagorno-Karabakh and destroyed them. The Turkish drones were also able to carry out the operations of identifying and targeting targets without human intervention in an accurate manner. Azerbaijan has installed video cameras in Turkish planes to film and broadcast its offensive operations against Armenia. Armenia used traditional military defense methods and relied on trenches, while Azerbaijan used Turkish drones, which proved their technical superiority over the Russian defense equipment used by Armenia (Shaikh & Rumbaugh, 2020).

Turkish-made TB2 drones destroyed the equipment and weapons of the Armenian army. The Turkish drones initially eliminated the Russian-made Armenian air defense systems. The drones destroyed the early warning radars. In addition to

establishing a maneuvering area for unmanned aircraft. It carried out massive drone attacks against the Armenian ground forces. The Armenian ground forces were deprived of the umbrella of their air defense, and therefore the drones were able to gather intelligence and then launched a strong and successful attack on the Armenian strategic elements. The Turkish drones proved the success of their high performance in resolving the battle in favor of Azerbaijan, as they were able to outperform the Russian air defense systems that Armenia used and destroyed, which forced the Armenian forces to withdraw gradually until the victory was crowned with the signing of an agreement stipulating the restoration of Azerbaijan control over all its seven regions, which were Occupied by Armenia, as well as the liberation of more than half of the breakaway Nagorno-Karabakh region. The Turkish drones also played another role, which is to reduce the losses in the ranks of the Azerbaijani army to a large extent, according to the Azeri president (Koker, 2020). The Turkish drones relentlessly hit the Armenian targets, including the ground defense equipment and air systems, and the Azerbaijani Air Force sent a cutting radar to the Armenian side by firing crop flicks, and indeed the Armenian defense systems swallowed the bait and revealed their location, attacked, and destroyed them Turkish Drones by TB2s (Witt, 2022).

Turkish-made drones were able to reveal the failure of Russian defense weapons in Armenia, as Turkish drones destroyed dozens of Russian and Azerbaijani Pantsir air defense systems, as well as Azerbaijan destroyed the Russian S-300 air defense system in Armenia (Grynszpan, 2020). It provoked anger from Russia in Armenia after the heavy losses it had suffered. This was evident in criticism of the Russian weapons and their ineffectiveness by Armenian political and military officials, and even the Armenian Prime Minister himself, who criticized the Russian Iskander missiles, stressing that they were useless. The interest also stressed that the Russian-made electronic systems did not work and did not secure the airspace of Armenia, and that the Russian “Repelent” anti-drone systems were destroyed, which led to a political crisis in Armenia between the government and the army as well as a crisis between the Armenian government and its Russian counterpart on the other hand, and created questions On the part of analysts and research centers, about the impact of Russian arms sales after this disappointing performance, and led to concern and anger among the Russian leadership about Turkey’s thwarting its plans in more

than one country (Sputnik, 2021).

## **E. The role of Turkish drones for Ukraine**

### **1. The Russian-Ukrainian conflict**

Throughout history, Russian-Ukrainian relations have gone through stages of conflicts, tensions, and stability since the seventeenth century. Since the relationship between Russia and Ukraine dates back hundreds of years, both countries have roots in the East Slavic state called "Kyiv Rus". Thus, according to history, the course of Russia and Ukraine was different throughout history, which led to the emergence of two different languages and two different cultures. During the seventeenth century, a large area of Ukraine was part of the Russian Empire. When the Russian Empire fell, Ukraine was able to become independent from Russia, and then Soviet Russia arose and occupied Ukraine again and annexed it. Then Ukraine and Belarus were able to secede from the Soviet Union and thus led to the disintegration of the Soviet Union. Since the collapse of the Soviet Union, the relationship between the two countries has been marred by stability and cooperation. In 1997, Russia recognized the borders of Ukraine, which included the Crimea, most of whose residents are Russians (The Times of India, 2022). Ukraine tried to join NATO but failed in joining due to Russia's refusal. It tried to join the West. In 2013, Ukraine signed a cooperation agreement with the European Union, but it was later frozen due to what Russia did of economic restrictions on imports To Ukraine The indirect war between Russia and Ukraine began in 2014, when Russia sought to annex the Crimea. At the same time, the Russian forces mobilized the Donbas region in eastern Ukraine, then declared two people's republics in Donetsk and Luhansk, headed by the Russians. Then they tried to conclude the Minsk Agreement It did not work and then they concluded the Minsk Agreement 2 and so far it has not been implemented. Russia always refuses and requests not to allow Ukraine to join NATO, as according to the NATO agreement that any military attack against any member of NATO is considered an attack on the alliance as a whole. And therefore Russia is afraid of Ukraine joining the alliance NATO, as this will prevent it from launching any military attack on Ukraine because it will face the entire alliance countries (Fitzgerald, 2022).

In late 2021, aerial footage showed Russian heavy weapons heading to the Ukrainian border, and a crowd of soldiers, and this was repeated in 2022, as the



Russian armies worked to supply the Ukrainian border with thousands of soldiers, and this is considered a warning of the outbreak of a new war. After the Russian army was deployed to the Ukrainian border, Putin denied the Russian president intending to invade Ukraine. But in February 2022, Russia invaded Ukraine (Lister et al., 2022).

## **2. The role of the Turkish drone in the Russian-Ukrainian war**

Before Russia invaded Ukraine in 2019, Ukraine had purchased nearly 12 Turkish-made TB2 systems, as Ukraine was one of the first countries to purchase Turkish TB2 drones. The Ukrainian government has also allocated land for Turkish drone manufacturing facilities locally as the two countries plan to expand cooperation in the defense industry (Honrada, 2022).

Turkish-made Bayraktar TB2 drones were able to play a good and tactical role for Ukraine in the Russian invasion of Ukraine. As the Turkish TB2 combat planes are able to carry many munitions, as they can carry four laser-guided munitions, and these laser munitions have good effectiveness in directing the target to ground targets, they can target military equipment on the ground such as Russian tanks, but also target systems Mobile air defense. Bayraktar planes may help Kyiv in draining the Russian army in a long-term war. Given its high advantages, the TB2 can fly for 186 miles and for a period of 27 hours. It can carry four smart munitions, or up to 330 pounds of explosives. The TB2 is fully automated without human control. The TB2 can provide good air support to Ukraine, as it can fire in depth, as well as transport ammunition for its artillery and supply lines. This is considered important because it slows and impedes the progress of the Russian army. Although the TB2 has a slow speed and low altitude, this makes it a special aircraft, as described by Doug Berkey, Executive Director of the Mitchell Institute for Space Studies, who saw that it could establish a specific area in a specific place and at the right time (Johnson, 2022).

Turkish-made drones were able to play a strong, prominent, and essential role in favor of Ukraine after the Russian invasion. The Turkish drones inflicted great losses on the Russian defense side. As it managed to sink the Russian cruiser, it also managed to cause great damage to the Russian ships (Honrada, 2022). Turkish TB2s destroyed Russian missile batteries and disrupted Russian supply lines by bombing

trucks (Witt, 2022).

Bayraktar TB2 Turkish-made attack aircraft in Ukraine can be completely hidden and isolated, and they are fully automated. Expectations at the beginning of the war were that these planes would not survive and all of them would fall within hours, but Bayraktar TB2 was able to fly for long periods, and it also launched missiles in a targeted and accurate manner at Russian defense systems such as Russian missile launchers and tanks, and at a very important target, which is supply trains Russian. Many military analysts also confirmed that the Turkish-made drones that Ukraine used were able to achieve success for the Ukrainian side, and even achieved success for the Ukrainian side and air superiority over its Russian counterpart. Turkish Drones gave the Ukrainian people a boost in their morale, as they composed songs about the Bayraktar drone because of their joy at its effectiveness against the Russian invasion. Ukraine, using Turkish drones, launched attacks on Russian military convoys. Because of the Turkish-made drones, Ukraine was able to control and dominate the Ukrainian airspace, which prevented Russia from sending its drones to monitor the Ukrainian side of the land. Because of the Bayraktar's control of the airspace, this made Russia falter, losses in its line increased, and it lost many weapons such as tanks, missile launchers and supply trucks (Philipps & Schmitt, 2022).

#### **F. Turkish Drones in Turkish foreign policy**

Turkey has adopted Realism and has relied in her foreign policy on military force and has recently relied heavily on Turkish-made drones. It was clear Turkey's interest in this aspect of its defense policy, and its desire to exploit it to strengthen its relationship with its allies and gain new allies. Where the research reviewed how Turkey applied a principle of realism, which is to focus on its hard power after the threats it faced internally and externally to maintain its security, and Turkish-made drones participated in several conflicts and carried out military operations, in Syria, Libya and Azerbaijan. The Turkish strategic deterrence is part of the strategy explained by Ahmet Davutoglu, the then Turkish Minister of Foreign Affairs, and former Turkish Prime Minister, and is based mainly on the idea that the influential position that Turkey should assume on the regional and international scene requires the Turkish society and the state to reinterpret history and geography according to a

self-awareness of existence. Psychologically aware of the distinctiveness of the Turkish element, as well as the importance that history and geography have given it; Therefore, the strategy does not stop at searching only for optimal ways to secure Turkish national security, but also how Turkey uses its historical and geographic heritage in its foreign policy to achieve its appropriate regional and international status (Kasapoglu, 2012).

It is obvious that the successive events during the past decade led to an increase in the threats facing Turkey both internally and externally. Internally, Turkey has suffered from terrorist operations carried out by armed groups, most notably the DAESH and the PKK. Externally, the explosion of the situation in Syria has led to waves of displacement of millions of Syrians to Turkish territory, as well as the establishment of military bases on Turkey's borders by foreign powers, such as the US and Russia (Haugom, 2019), as well as the presence of Iranian militias that control a number of From the regime's areas, Kurdish forces control nearly a third of Syria's area, including the oil-rich areas, and are trying to establish a national homeland for the Kurds on Turkey's borders, which represents a major threat to Turkish national security (Said, 2017). The air campaign with drones on Tripoli would not have failed without the Turkish military intervention in support of the Government of National Accord, and the regime forces' campaign to control Idlib would not have stopped had it not been for the intense Turkish military air strikes with domestically made drones, which forced the regime's army to return to the truce again.

Not only that, but Ankara found ambitions from Armenia in its eastern regions, when Armenian Prime Minister Nikol Pashinyan spoke about the Treaty of Sevres, which would have given eastern Turkey to his country, which upset the Turkish leadership. Armenian forces also attacked the area where there are oil pipelines and railways important for trade between Turkey and Azerbaijan (Soylu, 2020). Turkey found itself alone without the support of its Western allies in the face of Russia during the crisis of the downing of a Russian plane over Turkish airspace in 2015, amid An American and Western refusal to supply Turkey with air defense systems, advanced military technologies and drones. Turkey decided to adopt another principle of realism, which is self-reliance, and moved towards developing its military industries. Turkey focused its interests in developing and manufacturing

drones (Özertem, 2017).

After the world saw what the Turkish drones have done and the great success of those who stand with them, such as Libya, Syria, Azerbaijan and recently in Ukraine. In its foreign policy, Turkey gained a global reputation in the field of military industries, especially drones, and research centers and international newspapers dealt with this phenomenon, and the provision of drones with cameras, led the world to witness the ability of those aircraft to hit their targets accurately, and to destroy armored vehicles and weapons, without Damage to places or people around those targets. Turkish-made drones were able to resolve wars in favor of those who stand by them.

Turkey has obtained global recognition for the quality of its drones, such as the statement of the British Minister of Defense, who expressed his admiration for these aircraft and their ability to transform the course of military conflicts, as well as his admiration for Turkey's ability to manufacture them despite being denied access to foreign technology (Anadolu Agency, 2020). This acknowledgment of the desire of a number of countries to acquire Turkish drones, even if their relationship with Turkey is not good enough, such as Serbia, whose President Aleksandar Vucic said that his country will see what can be done to agree with the Turkish side to acquire these planes “whatever happens,” considering that buying them “A very smart investment” (Zakaria, 2020). The image of Turkey has been established as a strong ally that stands by its allies and intervenes to their aid and does not hesitate to use all tools to achieve victory for them. The successes of several countries in their conflicts, and the link between these successes and Turkish intervention as a reliable ally.

The Turkish military intervention was keen to choose the side to which it is aligned, and they share several characteristics, most notably that they have international recognition of their right to the conflict, such as the former Libyan Government of National Accord, as well as Azerbaijan, which enjoys the world's recognition of its right to the Karabakh region and the surrounding provinces. Syria, the intervention in favor of civilians was against a regime that has lost legitimacy and has been expelled from most regional and international organizations.

Turkey was able to turn its successful military interventions with Turkish drones into economic achievements. The Turkish intervention in Libya led to the

resumption of oil production and export after Haftar's forces prevented it for months, which contributed to improving the economic situation of the Libyans. Turkish companies were also able to obtain contracts to implement many projects, and the previous Government of National Accord pledged to compensate Turkish companies for their losses due to Projects it was implementing during the Gaddafi era (Al Ashry, 2020). In Azerbaijan, its military victory allowed it to restore its land connection with its Nakhichevan Autonomous Republic, through a corridor that was allowed to be established in accordance with the ceasefire agreement, which will have important economic consequences. In terms of trade, goods transport, internal development, as well as foreign trade between Azerbaijan and Turkey, it is expected to establish commercial railways linking Turkey to Azerbaijan via Armenia. This victory also enabled Turkey to connect by land with the Central Asian countries through Azerbaijan, and trade movement will develop without the need to rely on land (Al Jazeera, 2020).

## V. CONCLUSION

The study discusses the Realist theory and its relationship to Turkey's progress in the military field, especially the Turkish drones, and how Turkey directly or indirectly adopted the realization of the principles of the realistic theory to become a great power and to be able to maintain its national security and survival. Turkey has also adopted another principle of realism, which is not to rely on other countries in its military industries, and Turkey has tried hard to achieve this principle after it tried for years to buy Israeli drones, but Israel put intelligence devices in it to spy on Turkey, so Turkey sought to develop drones locally and did pursuit of its own self-interest. And how Turkey's foreign policy has turned into smart power that uses hard power and gains successes through it so that it can use soft power, and that Turkey, after its successful interventions using Turkish military drones, has achieved successes and turned the table in its favor and in favor of the party in whose favor it intervened. Turkey has changed its military strategy and adopted a policy of self-reliance and focus on developing Turkish military industries locally. It relies heavily on the development of Turkish military drones and was able to succeed in its manufacture and also as a weapon of war to resolve wars in its favor and in favor of those who use Turkish-made drones. Turkey has entered with the rest of the other countries in the arms race because it knows that the state seeks to use all its available means, especially military force, because it must increase its military power to ensure its security of survival. The interests of each state differ from the other, but the interest that all states share is survival, as states seek to achieve their national interest.

In the third chapter, the research reviews the historical background of the drone industry and how it started with a trick when flying balloons loaded with bombs were used. But the world tried hard to introduce technology into that trick and made drones that can be controlled remotely and can carry explosives, can jam radars and be able to carry out intelligence reconnaissance. And that the planes at first were used for reconnaissance and espionage, then with the development it turned into

offensive. In the beginning, the drones depended heavily on human intervention, but with time they became unmanned and even able to operate completely autonomously without human control from a distance.

The study also explains how the domestically made Turkish drones were able to resolve wars in favor of the party that intervened in their favor and Turkey is able to be a strong and reliable ally. The study presents it by reviewing her war on terrorism against the PKK and how the Turkish drones and the Turkish military strategy can achieve superiority over the PKK and succeeds in controlling most of their locations and limiting their terrorist attacks. Turkey is also able to resolve the war in Idlib in favor of the Syrian opposition against the forces of Syrian's regime and its militias. Also in Libya, the Turkish drones manage to win the battle in favor of the Government of National Accord. Also, the Turkish drones, after nearly 30 years, influences the battle in favor of Azerbaijan against Armenia. Even when Turkey does not intervene directly and only exported Turkish drones to Ukraine, through Turkish drones, Ukraine is able to cause many losses to the Russian invasion and slowest down the progress.

The study argues that Russia, which is known as a great power and is known for its strong military defenses, was a party, either directly or indirectly, to the counter party to which Turkey intervenes. But Turkey, using its military strategy and Turkish-made drones, managed to overcome and successfully defeat the Russian military defenses each time. As Russia supports Bashar al-Assad, Russia supported Haftar with Russian military defenses, Armenia used Russian-made weapons and defense systems, and of course in Ukraine the weapons were Russian-made. But the Turkish drones were able each time to defeat the Russian air and land defense weapons and to destroy them.

Turkey has been able to achieve several successes through Turkish-made military drones. Turkey has been able to be a strong ally that you can count on. Turkey has been able to be a model for self-sufficiency in the field of military industries. Through its intervention and success in the countries that intervened in its favor, Turkey was able to strengthen its foreign policy, gain a good global reputation, and protect its national security. Through this, Turkey was able to achieve a stronger role for itself and its foreign policy through the successes it achieved with Turkish-made drones. Turkey was able to make a stronger role for itself in the region.

## **VI. REFERENCES**

### **BOOKS**

BAL, I. (2006). **Terörizm, Terör, Terörizm ve Küresel Terörle Mücadelede Ulusal ve Bölgesel Deneyimler**, USAK Yayınları.

ÖZEREN, S. ve Bal, I. (2010). **Türkiye'de Terörle Mücadele: PKK Örneği, Dünyadan Örneklerle Terörle Mücadele**, USAK Yayınları, 17-77.

COLE, R. H. (2006). **Review of the Desert Storm Air War, On Target: Organizing and Executing the Strategic Air Campaign against Iraq**. Air Power History.by: Air Force Historical Foundation, Vol. 53, No. 2 (SUMMER 2006), pp. 42-45.

DEBLOIS, B. M., GARWIN, R. L., KEMP, R. S., MARWELL, J. C. (2004). **Space Weapons: Crossing the U.S. Rubicon**. International Security, Vol. 29, No. 2 (Fall, 2004), pp. 50-84.

DOWER, J. W. (2007). **The Bombed: Hiroshimas and Nagasakis in Japanese Memory** ,Diplomatic History, Oxford Academic, pp. 275–295.

GADDIS, J. L. (1991). **Toward the Post-Cold War World**. Foreign Affairs, Vol. 70, No. 2 (Spring 1991), pp. 102-122.

GIBSON, H. (1944). **The Road to Foreign Policy**, Doubleday, N.Y., Doran and Company.

HOLSTI, K. J. (1964). **The Concept of Power in the Study of International Relations**. University of British Colombia.

NEACK, L. (2008) **The New Foreign Policy: Power Seeking in a Globalized Era**. Lanham, Md: Rowman & / Littlefield Publishers.

NYE, J. S. (1990). **Soft Power**. Foreign Policy, 80, pp. 153–171, <https://doi.org/10.2307/1148580>

PADEL FORD, N. J. & LINCOLN, G. A. (1977). **The Dynamics of International**



**Politics.** MacMillan.

SARGHINI F., DE VIVO A. (2017). **Analysis of Preliminary Design Requirements of a Heavy Lift Multirotor Drone for Agricultural Use**, *Chemical Engineering Transactions*, 58, 625-630.

BACHRACH, P. & BARATZ, M. (1963). **Decisions and Nondecisions: An Analytical Framework.** *American Political Science Review*, 57(3), 632-642. DOI:10.2307/1952568

BROWN, P. A. & SMITH, M. L. R. (2014). **The Rise of Gulf War Paradigm 2.0.** *ORBIS*, Volume 58, Issue 1, pp. 83-103, <https://doi.org/10.1016/j.orbis.2013.11.005>

CARTER, F. W. & TURNOCK, D. (2000). **Ethnicity in Eastern Europe: Historical legacies and prospects for cohesion.** "Ethnicity," p. 81, *Human Resources of Eastern Europe*, Springer.

#### **ARTICLES**

AL ASHRY, M. S. (2020). Turkey Intervention Is 'New Phase Of Libya's Conflict'. **Eurasia Review.**

BAĞCI, H. & KURÇ, C. (2017). Turkey's strategic choice: buy or make weapons? **Taylor & Francis.**

BENHAÏM, Y. & ÖKTEM, K. (2015). The rise and fall of Turkey's soft power discourse (Discourse in foreign policy under Davutoğlu and Erdoğan). **European Journal of Turkish Studies.**

DOUGLASS, R. (2016). Hobbes and political realism. **European Journal of Political Theory.**

EGELI, S. (2019). Making Sense of Turkey's Air and Missile Defense Merry-go-round, *All Azimuth: A Journal of Foreign Policy and Peace.*

GILBERT, F. (1939). The Humanist Concept of the Prince and the Prince of Machiavelli. **The Journal of Modern History.**

HASTINGS, M. & STONE, R. (2012). The Rise of the Killer Drones: How America Goes to War in Secret. **Reader Supported News.**

Karataş, İ. (2020). Turkish Defense Industry's Scramble Against Arms Embargoes

and Engine Production, **Social Sciences Research Journal**.

LEE, S. F. AND KO, A. (2000). Building balanced scorecard with SWOT analysis and implementing “Sun Tzu’s The Art of Business Management Strategies”. **Emerald Insight**

NYE, J. (2012). China and soft power. South African Journal of International Affairs, **Taylor and Francis**.

OĞUZLU, T. (2007) Soft power in Turkish foreign policy, **Australian Journal of International Affairs**.

OKAFOR, F., ECHEZONA, Y. & ANEKWE, S. (2015). In the Study of Sun Tzu’s Strategic Catechism and Contemporary Calculated Tactics: Locating the Ancient in the Modern. **International Journal of Management, Policy and Administrative Studies**.

OLDEMEINEN, M. (2010). The Political Realism of Thucydides and Thomas Hobbes. The University of St Andrews. **E-INTERNATIONAL RELATIONS**

OTA, F. (2014). Sun Tzu in Contemporary Chinese Strategy. **National Defense University Press**.

RANA, W. (2015). Theory of Complex Interdependence: A Comparative Analysis of Realist and Neoliberal Thoughts. **International Journal of Business and Social Science**.

RÖSCH, F. (2013). The Human Condition of Politics: Considering the Legacy of Hans J. Morgenthau for International Relations, **Journal of International Political Theory**.

SAID, K. (2017). Turkey and Iran a regional cold war justified by economic interests. **Journal for Iranian Studies**.

SHEPHERD, A. D. (2022). From Spark and Flame: a Study of the Origins of Gunpowder Firearms. Harding University. **Tenor of Our Times**.

ROTHE, A. H. (2014). Clausewitz’s Concept of Strategy – Balancing Purpose, Aims and Means, **Journal of Strategic Studies**. **Taylor and Francis**.

TELBAMI, S. (2002). Kenneth Waltz, Neorealism, and Foreign Policy, **Security**

Studies. **Routledge**.

VILCHESA, D. & ALBURQUERQUEB, G. & TAGLEC, R. R. (2016). One hundred and one years after a milestone: Modern chemical weapons and World War I. **educación Química**

WILSON, E. (2008). Hard Power, Soft Power, Smart Power, The ANNALS of the American Academy of Political and Social Science, **SAGE Publications**.

BLACK, I (2010) Iran unveils bomber drone that aims to deliver peace and friendship, **The Guardian**

CANTENAR, O. F. (2021). Turkey Conducting Targeted Killings of PKK Leaders in Iraq: What's Next? The Jamestown Foundation, **Global Research & Analysis**.

#### **ENCYCLOPEDIAS**

BAKEER, A. (2020). The fight for Syria's skies: **Turkey challenges Russia with new drone doctrine**. Qatar University, ResearchGate.

BOWEN, A. (2021). Azerbaijan and Armenia: **The Nagorno Karabakh Conflict**. Congressional Research Service.

CASIER, M. (2010). Designated Terrorists: **The PKK and its Struggle to (Re)Gain Political Legitimacy**, ResearchGate

BOYLE, M. Z. (2013). The costs and consequences of drone warfare. Oxford University Press on behalf of the Royal Institute of International Affairs.

FRANKEL, J. (1968). The Making of Foreign Policy. **An Analysis of Decisionmaking**. London Oxford University Press.

HAUGOM, L. (2019). Turkish foreign policy under Erdogan: **A change in international orientation**, Comparative Strategy.

HELD, D., MCGREW, A., GOLDBLATT, D., PERRATON, J. (1999). Global Transformations, **Politics, Economics and Culture**. Cambridge: Polity Press.

HOLSTI, O. R. (1977). Foreign Policy Decision-Makers Viewed Psychologically: **Cognitive Processes Approaches**. SpringerLink

KARPOWICZ, K. & JULIAN, W. (2018). "Political Realism in International

Relations", The Stanford Encyclopedia of Philosophy.

LARRABEE, S. F. (2010). Turkey's New Geopolitics, **Surviva, Global Politics and Strategy**. Taylor and Francis.

MASCHNER, H. & MASON, O. K. (2013). The Bow and Arrow in Northern North America. **Evolutionary Anthropology: Issues, News, and Reviews**. Wiley Online Library.

MCQUEEN, A. (2017). Political realism and the realist '**Tradition**', Critical Review of International Social and Political Philosophy.

MESSIER, R. A. (2008). The worlds of Ibn Khaldun: introduction, The Journal of North African Studies, Taylor and Francis.

MINDLE, G. (1985). Machiavelli's Realism. **The Review of Politics**. Cambridge University Press.

MURRAY, A. (1996). The Moral Politics of Hans Morgenthau. **The Review of Politics**, Cambridge University Press.

ÖZERTEM, H. S. (2017). Turkey and Russia: **A Fragile Friendship**. **Turkish Policy Quarterly**. Academia. Edu

ROSE, G. (1998). Neoclassical Realism and Theories of Foreign Policy. World Politics. Cambridge University Press.

SMART, J. (1986). Realism v. Idealism. Philosophy, Cambridge University Press.

WILSON, G. (2011). The Changing Face of War: **Into the Fourth Generation**. Marine Corps Gazette, Accelerating the world's research, pp. 22-26.

HARMONY, T. M. (2017). The Space Race and American Foreign Relations. Oxford Research Encyclopedia. Oxford Research Encyclopedias

MEILINGER, F. S. (1993). Giulio Douhet and modern war, Comparative Strategy, 12:3, 321-338, DOI: 10.1080/01495939308402933

SMITH, G. (2003). The Post-Soviet States: **Mapping the Politics of Transition**. **Russia in the Modern World: A New Geography**, Oxford Universty Press.

## **ELECTRONIC SOURCES**

- ALJAZEERA (2020). Libya timeline: Haftar's offensive to a ceasefire  
<https://www.aljazeera.com/news/2020/10/23/libyas-timeline-from-haftars-offensive-to-ceasefire>
- ALJZEERA (2020). The Nagorno-Karabakh War: New balances of power in the South Caucasus, Al Jazeera Center for Studies,  
<https://studies.aljazeera.net/ar/article/>
- AL-RANTISI, M. (2019) Libya in Turkey's foreign policy, new facts in land and sea equations, Al Jazeera Center for Studies,  
<https://studies.aljazeera.net/ar/reports/2019/12/191212101941157.html#a11>
- ANADOLU AGENCY (2020). UK defense chief: Turkish use of drones 'game-changing',  
<https://www.aa.com.tr/en/energy/energy-diplomacy/uk-defense-chief-turkish-use-of-drones-game-changing/29913>
- YAVUZ, M. (2016). The Turkish Coup Attempt: The Gülen Movement vs. the State. Middle East Policy.
- WONG, E (2013) Hacking U.S. Secrets, China Pushes for Drones. The New York Times
- SCHMITT, E (2012). U.S. Proposal Would Arm Italy's Drones. The New York Times
- CENCIOTTI, D (2012) First European experimental stealth combat drone rolled out: the nEUROn UCAV almost ready for flight. THE AVIATIONIST
- MASOOD, S (2015) Pakistan Says Its Drone Killed 3 Militants. The New York Times
- LIN, J & SINGER, P (2015) Iraq Flies Chinese-Made Drones. POPULAR SCIENCE
- ET (2018) China to sell 48 high-end military drones to Pakistan. The Economic Times
- KUCERA, J. (2012) Georgia Shows Off New Drone. Eurasianet
- INDIA NEWS (2016) Rustom-II, made-in-India drone capable of combat, completes maiden flight. Hindustan Times News

- CHUANREN, C & POCOCK, C (2017) Saudi Arabia Buying and Building Chinese Armed Drones. AINONLINE
- BROWNSWORD, S. (2020). Turkey's unprecedented ascent to drone superpower status, <https://dronewars.net/2020/06/15/turkeys-unprecedented-ascent-to-drone-superpower-status/>
- BRUCE, N. C. (2020). The Killing of Qassim Suleimani Was Unlawful, Says U.N. Expert, <https://www.nytimes.com/2020/07/09/world/middleeast/qassim-suleimani-killing-unlawful.html>
- CALISKAN, B. (2020). The 2nd Karabakh War and the New Era in the South Caucasus, [https://insamer.com/tr/2-karabag-savasi-ve-guney-kafkasyada-yeni-donem\\_3524.html](https://insamer.com/tr/2-karabag-savasi-ve-guney-kafkasyada-yeni-donem_3524.html)
- CRINO, S. & DREBY, A. (2020). Turkey's Drone War In Syria – A Red Team View. Small Wars Journal, <https://smallwarsjournal.com/jrnl/art/turkeys-drone-war-syria-red-team-view>
- ÇETINER, Y. (2021). Akıncı UAV to be Delivered To The Turkish Armed Forces, <https://www.overtdefense.com/2021/08/31/akinci-uav-to-be-delivered-to-the-turkish-armed-forces/>
- DAILY SABAH (2020). Turkey launches Operation Spring Shield against regime aggression in Syria, <https://www.dailysabah.com/politics/turkey-launches-operation-spring-shield-in-syrias-idlib/news>
- FEDERAL AVIATION ADMINISTRATION (2019). Unmanned Aircraft Systems Forecast.  
Available:[https://www.faa.gov/data\\_research/aviation/aerospace\\_forecasts/media/Unmanned\\_Aircraft\\_Systems.pdf](https://www.faa.gov/data_research/aviation/aerospace_forecasts/media/Unmanned_Aircraft_Systems.pdf)
- FEROZ, E. (2021). After 20 years of drone strikes, it's time to admit they've failed. MIT Technology Review, <https://www.technologyreview.com/2021/10/07/1036456/opinion-afghanistan-drone-strike-warfare-failed/>
- FITZGERALD, M. (2022). Russia Invades Ukraine: A Timeline of the Crisis, <https://www.usnews.com/news/best-countries/slideshows/a-timeline-of-the-russia-ukraine-conflict?slide=11>

- GATOPOULOS, A. (2020). The Nagorno-Karabakh conflict is ushering in a new age of warfare, <https://www.aljazeera.com/features/2020/10/11/nagorno-karabakh-conflict-ushering-in-new-age-of-warfare>
- GILES, L. (2011). The Art of War by Sun Tzu, Translated from the Chinese with Introduction and Critical Notes, [https://jstrack.org/suntzu/Sun\\_Tzu-The\\_Art\\_of\\_War\\_Lionel\\_Giles.pdf](https://jstrack.org/suntzu/Sun_Tzu-The_Art_of_War_Lionel_Giles.pdf)
- GÜLER, S. (2020). 'Haftar forces to be legitimate target if attack Turkish interests'. <https://www.aa.com.tr/en/africa/haftar-forces-to-be-legitimate-target-if-attack-turkish-interests/1849114>
- GRYNSZPAN, E. (2020) How Baku broke through Nagorno-Karabakh, <https://www.lefigaro.fr/international/comment-bakou-a-perce-le-haut-karabakh-20201025>
- GUNDEM (2020). Anatomy Of The Karabakh Victory, <http://www.gundem.be/haberler/dunya/karabag-zaferinin-anatomisi/>
- HAARETZ (2020). Two Warplanes and Three Drones Shot Down in Syria-Turkey Escalation <https://www.haaretz.com/middle-east-news/syria/2020-03-01/ty-article/two-warplanes-and-a-drone-shot-down-in-syria-turkey-flare-up/0000017f-ef8a-d0f7-a9ff-efcfda640000>
- HONRADA, G. (2022). The Turkish drones winning the Ukraine war, <https://asiatimes.com/2022/05/the-turkish-drones-winning-the-ukraine-war/>
- JENKS, C. (2018). Drones. In Dražan Djukić and Nicolò Pons (Eds.). The Companion to International Humanitarian Law, Leiden: Brill Nijhoff, 2018, SMU Dedman School of Law Legal Studies Research Paper No. 429, <https://ssrn.com/abstract=3421732>
- JOHNSON, J. (2013). Israel's deadly drones have origins in Sinai occupation. <https://electronicintifada.net/blogs/jimmy-johnson/israels-deadly-drones-have-origins-sinai-occupation>
- KASAPOGLU, C. (2012). Turkey's new 'Strategic Depth', <https://www.jpost.com/Opinion/Op-Ed-Contributors/Turkeys-new-Strategic-Depth>

- KOKER, I. (2020). Nagorno-Karabakh: What was the role of UAVs and manned UAVs, how did they benefit Azerbaijan? BBC Turkish <https://www.bbc.com/turkce/haberler-dunya-54917938>
- KONERT, A., SMEREKA, J., SZARPAK, L. (2019). "The Use of Drones in Emergency Medicine: Practical and Legal Aspects", *Emergency Medicine International*, vol. 2019, Article ID 3589792, 5 pages. <https://doi.org/10.1155/2019/3589792>
- MANSELL, M. (2021). Incirlik's ISR Dilemma, [https://www.airuniversity.af.edu/Portals/10/ISR/student-papers/AY2122/IncirliksISRProblem\\_Mansell.pdf](https://www.airuniversity.af.edu/Portals/10/ISR/student-papers/AY2122/IncirliksISRProblem_Mansell.pdf)
- OZDEMIR, O. (2020). Is Turkey a rising power in the world in the production of UAV and SİHA? <https://www.bbc.com/turkce/haberler-turkiye-54533620>
- OZKIZILCIK, O. (2021). Drones and checkpoints: Turkey's blueprint for success against PKK in Iraq, <https://www.trtworld.com/opinion/drones-and-checkpoints-turkey-s-blueprint-for-success-against-pkk-in-iraq-46294>
- ÖZTÜRK, B. (2020). 2017: A Year of Intense Counterterrorism Operations for Turkey, *Terrorism Analysis Platform* <https://tap-data.com/article/2017-a-year-of-intense-counterterrorism-operations-for-turkey>
- PAMUK, M. E. (2021). Bayraktar TB2 (Tactical Block 2) S/UAV | Dragonflies – I. <https://www.defenceturk.net/bayraktar-tb2-taktik-blok-s-ihayusufcuklari>
- PHILIPPS, D. & SCHMITT, E. (2022). Over Ukraine, Lumbering Turkish-Made Drones Are an Ominous Sign for Russia. *Russia-Ukraine War*, *The New York Times*
- PICKLES, D. M. (2022). "Charles de Gaulle". *Encyclopedia Britannica*, <https://www.britannica.com/biography/Charles-de-Gaulle-president-of-France>
- PUSANE, O. K. (2021). What can Turkey Accomplish with Drones in Its Fight against the PKK? | Lessons from the Past and Expectations about the Future. *Terrorism Analysis Platform*. <https://tap-data.com/article/what->



can-turkey-accomplish-with-drones-in-its-fight-against-the-pkk-lessons-from-the-past-and-expectations-about-the-future

REUTERS (2020). Russia to Turkey: We cannot guarantee safety of your planes over Syria – Tasaerospace And Defense, <https://www.reuters.com/article/us-syria-security-turkey-russia-idUSKBN2002AL>

ROBLIN, S. (2020). Turkish Drones and Artillery Are Devastating Assad's Forces In Idlib Province-Here's Why, <https://www.forbes.com/sites/sebastienroblin/2020/03/02/idlib-onslaught-turkish-drones-artillery-and-f-16s-just-destroyed-over-100-armored-vehicles-in-syria-and-downed-two-jets/?sh=3e5186526cd3>

ROGOWAY, T. (2016). Meet Israel's 'Suicide Squad' of Self-Sacrificing Drones. The War zone, <https://www.thedrive.com/the-war-zone/4760/meet-israels-suicide-squad-of-self-sacrificing-drones>

ROTH, A. (2020). Russia and Turkey agree ceasefire in Syria's Idlib province, <https://www.theguardian.com/world/2020/mar/05/russia-and-turkey-agree-ceasefire-in-syrias-idlib-province>

RUDAW (2020). Iranian militia body in Syria warns Turkey to end Idlib airstrikes. Rudaw <https://www.rudaw.net/english/middleeast/syria/01032020>

SAGÇAN (2020). #Urgent | The Prime Minister of Armenia says he has signed an agreement with the leaders of Russia and Azerbaijan to end the war #Turkey, a strong and faithful ally. Twitter, <https://twitter.com/mohsinQtr/status/1325938554216837129>

SERLE, J. (2014). Only 4% of drone victims in Pakistan named as al Qaeda members, <https://www.thebureauinvestigates.com/stories/2014-10-16/only-4-of-drone-victims-in-pakistan-named-as-al-qaeda-members>

SERLE, J. & PURKISS, J. (2017). Drone wars: the full data, <https://www.thebureauinvestigates.com/stories/2017-01-01/drone-wars-the-full-data>

SHAHMORADI, J. TALEBI, E. ROGHANCHI, P. HASSANALIAN, M. A. (2020). Comprehensive Review of Applications of Drone Technology in the

Mining Industry. Drones 2020, 4, 34.  
<https://doi.org/10.3390/drones4030034>

SHAIKH, S. H. & RUMBAUGH, W. (2020). “The Air and Missile War in Nagorno-Karabakh: Lessons for the Future of Strike and Defense,”. CSIS  
<https://www.csis.org/analysis/air-and-missile-war-nagorno-karabakh-lessons-future-strike-and-defense>

SHIRIYEV, Z. (2017). “The ‘Four-Day War:’ Changing Paradigms in the Nagorno-Karabakh Conflict,” <http://turkishpolicy.com/article/842/the-four-day-war-changing-paradigms-in-the-nagorno-karabakh-conflict>.

SOFUOĞLU, M. (2020). How Turkish drones are changing the course of the Libyan civil war, <https://www.trtworld.com/magazine/how-turkish-drones-are-changing-the-course-of-the-libyan-civil-war-36544>

SOYLU, R. (2020). Why Turkey returned to the Caucasus after a hundred years Middle East Eye, <https://bit.ly/330UZyh>

SPUTNIK (2021). OOPS! Armenia Acquired Russia’s Su-30 Fighter Jets Without Missiles Prior To War with Azerbaijan, <https://eurasianimes.com/armenia-purchased-russias-su-30-fighter-jets-without-missiles-in-2020-pm-pashinyan/>

SYNOVITZ, R. (2020). “Technology, Tactics, and Turkish Advice Lead Azerbaijan to Victory in Nagorno-Karabakh,” <https://www.rferl.org/a/technology-tactics-and-turkish-advice-lead-azerbaijan-to-victory-in-nagorno-karabakh/30949158.html>

THE TIMES OF INDIA (2022). Russia-Ukraine relations: A timeline <https://timesofindia.indiatimes.com/india/data/russia-ukraine-history>

WATTS, A. C., AMBROSIA, V. G., HINKLEY, E. A. (2012). Unmanned Aircraft Systems in Remote Sensing and Scientific Research: Classification and Considerations of Use. Remote Sens .4, 1671-1692.  
<https://doi.org/10.3390/rs4061671>

WITT, S. (2022). The Turkish Drone That Changed the Nature of Warfare. The New Yorker <https://www.newyorker.com/magazine/2022/05/16/the-turkish-drone-that-changed-the-nature-of-warfare>

YALÇINKAYA, H. (2021). Turkey's Overlooked Role in the Second Nagorno-Karabakh War, <https://www.gmfus.org/news/turkeys-overlooked-role-second-nagorno-karabakh-war>

ZAKARIA, A. (2020). Serbia praises the Turkish drones and expresses its desire to purchase them, <https://tr.agency/news-112016>

ZEIDAN, A. (2019). PKK. Encyclopedia Britannica, <https://www.britannica.com/topic/PKK>

## **DISSERTATIONS**

MIRDAN, O & YAKAR, M (2007). Türkiye İnsansız Hava Aracı Yol Haritası (Uzmanlık Tezi), Ankara, Savunma Sanayii Müsteşarlığı.

ASKEROV, A. (2020). "The Nagorno Karabakh Conflict," Post-Soviet Conflicts: The Thirty Years' Crisis, pp. 55-56, University of North Carolina at Greensboro.

BOJANG, A. S. (2018). The Study of Foreign Policy in International Relations. Journal of Political Sciences & Public Affairs. University of Twente.

CHAPMAN, G. (2003). An Introduction to the Revolution in Military Affairs. LBJ School of Public Affairs, University of Texas at Austin.

RAWFORD, N. C. (2016). Update on the Human Costs of War for Afghanistan and Pakistan, 2001 to mid-2016. Boston University.

ESEBUA, K. (2017). Russian Build-Up on The Black Sea and Recommendations for U.S.-Nato Counter Strategy. Naval Postgraduate School Monterey.

SELJÁN, P. (2020). Military Intervention and Changing Balance of Power in Libya: A Strongman, Russian Mercenaries and Turkish Drones. Academic and Applied Research in Military and Public

AARONSON, M. ASLAM, W. DYSON, T. RAUXLOH, R. (2014). Precision Strike Warfare and International Intervention: Strategic, Ethic-Legal and Decisional Implications(book). Routledge Global Security Studies. <https://books.google.com.tr/books?id=UEuDBAAAQBAJ>

AARONSON, M. AND JOHNSON, A. (2013). Hitting the Target? How New Capabilities are Shaping International Intervention, Royal United

Services Institute, Stephen Austin & Sons Ltd, 2013, <https://www.rusi.org/explore-our-research/publications/whitehall-reports/hitting-the-target-how-new-capabilities-are-shaping-international-intervention/>

ABBAS, H. (2009). President Obama's Policy Options in Federally Administered Tribal Areas of Pakistan (FATA), Institute for Social Policy and Understanding,

[http://www.ispu.org/content/President\\_Obamas\\_Policy\\_Options\\_in\\_Pakistans\\_Federally\\_Administered\\_Tribal\\_Areas\\_FATA](http://www.ispu.org/content/President_Obamas_Policy_Options_in_Pakistans_Federally_Administered_Tribal_Areas_FATA)

Acharya, U. D. (2009). War on Terror or Terror Wars: The Problem in Defining Terrorism, Denver Journal of International Law and Policy, XXXVII, 4, <https://Digitalcommons.du.edu/cgi/viewcontent.cgi?article=1253&context=djilp>

ABDELKEFI, A. HASSANALIAN, M. (2017) Classifications, applications, and design challenges of drones: A review, Progress in Aerospace Sciences, Volume 91, Pages 99-131, <https://www.sciencedirect.com/science/article/pii/S0376042116301348>

AIKINS, M. (2021). Times Investigation: In U.S. Drone Strike, Evidence Suggests No ISIS Bomb, <https://www.nytimes.com/2021/09/10/world/asia/us-air-strike-drone-kabul-afghanistan-isis.html>

AKARSLAN, H. (2020). Terrorist Use of Unmanned Aerial Vehicles: Turkey's Example, [https://www.researchgate.net/profile/Hueseyin\\_Akarслан/publication/344470122\\_Terrorist\\_Use\\_of\\_Unmanned\\_Aerial\\_Vehicles\\_Turkey's\\_Example/links/5f7ac61f299bf1b53e0e3c5d/Terrorist-Use-of-Unmanned-Aerial-Vehicles-Turkeys-Example.pdf](https://www.researchgate.net/profile/Hueseyin_Akarслан/publication/344470122_Terrorist_Use_of_Unmanned_Aerial_Vehicles_Turkey's_Example/links/5f7ac61f299bf1b53e0e3c5d/Terrorist-Use-of-Unmanned-Aerial-Vehicles-Turkeys-Example.pdf)

AKSAN, S. (2020). Türkiye'nin gökyüzündeki başarı imzası: Yerli İHA ve SİHA'lar, <https://www.trthaber.com/haber/gundem/turkiyenin-gokyuzundeki-basari-imzasi-yerli-ihave-sihalar-464449.html>

ALEMDAR, A. (2020). Anka-Aksungur'un varyantları belli oldu, <https://www.defenceturk.net/anka-aksungurun-varyantlari-belli-oldu>

## **OTHER SOURCES**

- ARIBOGAN, D. U. (2007). Terör Korku Hali (3. Baskı), Profil Yayıncılık.
- DAVUTOĞLU, A. (2013). Turkey's Mediation: Critical Reflections from the Field. Turkish Ministry of Foreign Affairs.
- FROSTIC, F. (1994). Air Campaign Against the Iraqi Army in the Kuwaiti Theater of Operations. Defense Technical Information Center.
- JOHNSON, K. (2022). Tactical Combat Drones Play a Role in Ukraine Air Defense. defense issues, Flying.
- KARDAŞ, Ş. (2012). From zero problems to leading the change: making sense of transformation in Turkey's regional policy. International Policy and Leadership Institute.
- KLEIN, G. R. (2022). The Leader of ISIS is Dead, but are Targeted Killings Effective? International Center for Counter-Terrorism.
- LAVELLE, B. C. (2005). Zeppelinitis. Air Command and Staff College Maxwell Afb Al. Defense Technical Information Center.
- OSKOOEI, F. B. (2020). Programming of an Indoor Autonomous Drone and Metrological Characterization. School of Industrial and Information Engineering.
- YANAROCAK, H. E. & PARKER, J. D. (2020). Turkey's Giant Leap: Unmanned Aerial Vehicles, Moshe Dayan Center for Middle Eastern and African Studies.
- GÜLER, M. Ç. & İPEK, C. D (2021). Turkey and Russia in Syrian war: Hostile friendship, Akademia Sztuki Wojennej, Security and Defence Quarterly.
- HICKMAN, K. (2018). World War II: Weapons, The Technology of Warfare. Thoughtco.com/world-war-ii-weapons-2361532
- JOSE, B. (2017). Bin Laden's targeted killing and emerging norms, Critical Studies on Terrorism, 10:1, 44-66, DOI: 10.1080/17539153.2016.1221662
- KASAPOGLU, C. (2020). Turkey Transfers Drone Warfare Capacity to Its Ally Azerbaijan, Eurasia Daily Monitor, Volume: 17, Issue: 144.
- KORNATOWSKI, P. M., MINTCHEV, S. AND FLOREANO, D. (2017). "An

origami-inspired cargo drone," IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), pp. 6855-6862, doi: 10.1109/IROS.2017.8206607.

KRAMER, A. E. (2021). Armenia and Azerbaijan: What Sparked War and Will Peace Prevail?, <https://www.nytimes.com/article/armenian-azerbaijan-conflict.html>Keane, J. & Carr, S. S. (2013). A Brief History of Early Unmanned Aircraft. Johns Hopkins Apl Technical Digest.

LISTER, T., JOHN, T. & MURPHY, P. (2022). Here's what we know about how Russia's invasion of Ukraine unfolded, <https://edition.cnn.com/2022/02/24/europe/ukraine-russia-attack-timeline-intl/index.html>

ÖZERTEM, H. S. (2017). Turkey and Russia: A Fragile Friendship. Turkish Policy Quarterly.

ÖZGEN, C. (2021). 44 Günün Ardından: 2020 Karabağ Savaşı'nin Askeri Açidan Analizi, Giresun Üniversitesi İktisadi ve İdari Bilimler Dergisi, 7 (1), 104-123, DOI: 10.46849/guiibd.849560

ÖZPEK, B. B. & DEMIRAĞ, Y. (2014). Turkish foreign policy after the 'Arab Spring': from agenda-setter state to agenda-entrepreneur state, Israel Affairs, 20:3, 328-346, DOI: 10.1080/13537121.2014.922806

RIORDAN, M., HODDESON, L., HERRING, C. (1999). The Invention of the Transistor. In: Bederson, B. (Eds.). More Things in Heaven and Earth. Springer, [https://doi.org/10.1007/978-1-4612-1512-7\\_37](https://doi.org/10.1007/978-1-4612-1512-7_37)

ROSSITER, A. & CANNON, B. J. (2022). Turkey's rise as a drone power: trial by fire, Defense & Security Analysis, 38:2, 210-229, DOI: 10.1080/14751798.2022.2068562

SHAY, S. H. (2019). The escalation of the war in Libya. Research Institute for European and American Studies.

TEKİR, G. (2020). Russian-Turkish Involvement in the Civil War in Libya. Türkiye Rusya Araştırmaları Dergisi.

ÜNAL, M. C. (2016). Is it ripe yet? Resolving Turkey's 30 years of conflict with the PKK, Turkish Studies, 17:1, 91-125, DOI:

10.1080/14683849.2015.1124020

GETTINGER, D (2019) THE DRONE DATABOOK. The Center for the Study of the Drone at Bard College.

LUKES, S. (2015). Robert Dahl on power, *Journal of Political Power*, 8:2, 261-271, DOI: 10.1080/2158379X.2015.1057988

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