THE UTILIZATION OF UNMANNED AERIAL VEHICLES (UAV) FOR MILITARY ACTION IN FOREIGN AIRSPACE

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ABSTRACT

What can be understood as Unmanned Aerial Vehicles (UAV), also referred to as drones or RPVs (Remotely Piloted Vehicles), are pilotless aerial vehicles which can be guided either through remote control by a military squad in its home country or that can navigate autonomously based on a pre-programmed software. The main arguments for the effectiveness of a drone strategy can be subdivided into four separate claims: (1) drones are effective at killing terrorists with minimal civilian casualties; (2) drones have been successful at killing so called ‘high value targets’ (HVTs); (3) using drones puts such pressure on terrorist organizations that it degrades their organizational capacity and ability to strike; and (4) the cost–benefit analysis of their use relative to other options—such as the deployment of ground troops—provides a compelling argument in their favor. However, a direct and grave implication of drone warfare is the issue of sovereignty. A considerable percentage of drone operations make use of foreign airspace without the express formal authorization of central governments. By a simple and rational perspective, such acts constitute disrespect to states sovereignty and should, therefore, be condemned by all signatories of the Charter of the United Nations – especially when the non-transparency of the attacks is taken into account. As seen, the topic does not only contain highly controversial questions about the theoretical usage of drones, but also inserts several regions, where drones are militarily operational, into discussion.

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What can be understood as Unmanned Aerial Vehicles (UAV), also referred to as drones or RPVs (Remotely Piloted Vehicles), are pilotless aerial vehicles which can be guided either through remote control by a military squad in its home country or that can navigate autonomously based on a pre-programmed software. Drones can be classified into civilian and military ones, each with different characteristics. The rise of military drones can be understood by two main factors: first, technological advances that allowed unmanned flying objects to be accurately guided over large distances and second, better intelligence gathering, making possible to identify high-value military targets while keeping civilian casualties and other collateral damage as low as possible (Singer 2010). Armed drones are similar to armed manned aircraft since they provide information as well as have strike capacity: they can kill, disable, support fighters on the ground, destroy, harry, hinder, deny access, observe, and track (Davis, McNerney, et al. 2014).

It is common to mistake armed UAVs with cruise missiles, since both have a high precision strike. Nonetheless, generally speaking, a UAV can deliver munitions and then return to be reused. There are four key technologies that have changed in recent years allowing such developments: 1) Inexpensive, Precision Navigation; 2) Inexpensive, Reliable Satellite Communication; 3) Lightweight Surveillance Equipment; 4) Lightweight Target Designation Equipment and Precision-Guided Munitions (PGMs). These improvements permit that a missile designed in the 1970s, such as the Hellfire, might be used in a drone and effectively hit a target (Singer 2009).

The first technology allows unmanned aircraft to fly long distances without concern about getting disoriented. This technology is available to practically anyone in the world, since its commercial use has expanded in the last years. The second one, low-cost satellite communication, enables users to require only a simple satellite phone with a low-bandwidth communication to know the UAV’s location and how it is functioning. The third technology is constantly evolving and it is one of the main economic advantages of using drones: they can be very small, in part because they are not required to transport a human being, which results directly in relatively small costs. The last one represents a major change in aerial operations: PGMs increases the accuracy of strikes to a point where is possible to aim at a single human being and eventually hit it precisely (Boot 2006).

Distinction between armed UAVs can be made in relation to its ranges (long, meaning above 300km, or low) and technology (high, understood as restricted for only some countries, or low, available for most countries). An example of long range and high technology is the US MQ-1 Predator, the MQ-9 Reaper and the RQ-7 Shadow. Although the technology for keeping the Predator, the Reaper, and Shadow in the air is not particularly advanced, the mission equipment that allows them to have an impact on ground combat is more advanced and not widely available. A long range and low technology drone is the Iranian Ababil and it uses basic radio remote
control to allow unmanned flight and video recording. All of the key technology to build this class of armed UAV is widely available throughout the world (Davis, McNerney, et al. 2014). While these UAVs can include high-resolution cameras, they typically lack stabilization systems needed for high accuracy steering and more advanced sensors.

Drones with low range and high technology are small, short-range systems, such as the hand-launched RQ-11 Raven, produced by the United States, and other widely used for commercial purposes such as law enforcement or commercial aerial photography. The navigation technology is widely used and its dual use characteristic is very common: it can be even encountered in toys, like the Wii remote (Davis, McNerney, et al. 2014). Finally, low range and low technology drones have been widely available commercially for many decades. In principle, they could be used as weapons of terrorism, since they can be encountered in any hobby shop and can be reworked with a conventional bomb (Singer 2009).

1 HISTORICAL BACKGROUND

1.1 UNMANNED AIR VEHICLE’S HISTORY: EARLY HISTORY, WORLD WAR I, INTERWAR PERIOD AND WORLD WAR II

UAVs had already been early thought of during the 19th century, with the use of balloons to bomb enemy cities, such as the launch of 200 pilotless balloons with bombs by the Austrians against Venice in 1849. Balloons were also used on the United States Civil War (1862). But the use of balloons had another objective: aerial reconnaissance, as used on the French Revolution (1889), for example. At this point, it was clear which the air power’s two main objectives were: tactical, for supporting ground forces through reconnaissance, supply, and communications; or strategic, for winning the war through the bombing of cities (Shaw 2013) (Blom 2010).

The outbreak of World War I (1914 – 1918) marks the begging of the Air War, since it was the first time when aircrafts were used on the battlefield. However, the first use of airspace in war wasn’t for combat, but for reconnaissance. First incursions had the objective of taking pictures and locating enemy combatants. But soon the possibilities of air attack were exploited, when pilots started to carry bombs or guns in order to strike armies, cities and factories. Air combat also started in WWI, when pilots shot each other in direct combat (Johnson 1966).

Besides aircrafts, aerial torpedoes and flying bombs were also developed in WWI. Nonetheless, they didn’t have as much success due to problems in the stabilization and operation of the new technologies. In the United States, in 1911, Elmer Sperry tried to use his invention, the gyroscope, on unmanned aircrafts. Until
the end of the war, he, along with Carl Norden and Glenn Curtiss, tried to develop an aerial torpedo, trying to use radio technology to control it, but it failed and it could never be used on the battlefield. Another project was being developed in the United States by Charles Kettering, in 1918: an unmanned flying bomb, latter called Kettering Bug, but it failed too, just like similar British and German projects. However, all this effort wasn't in vain: later they would be used for the cruise missiles (Keane and Carr 2013).

Projects of an UAV weren't interrupted in the Interwar Period. The development of radio technology enabled the emergence of target drones, used on training exercises. In 1936, the term drone was used for the first time to refer to aerial targets. In the United States, in 1938, aerial targets were used for the first time in naval training. Through the 1920s, the Royal Air Force from the United Kingdom tried to develop a radio-controlled unmanned aircraft that could bomb the enemy: Fairey Bee was created on 1933 and a later version, Queen Bee, fought on the WWII (Keane and Carr 2013). World War II (1939 – 1945) began with some UAVs under development. As Germany lost the previous war, its air force was quenched. However, unofficially, the Luftwaffe was already being trained. The Spanish Civil War, in 1936, was the test for Germany's air force, and Guernica was the first victim of the Luftwaffe bombing. This was also the beginning of the Blitzkrieg, when Air Force and Army acted together and coordinated (Johnson 1966).

A defining point of World War II was the Battle of Britain (1940 – 1941), between the Luftwaffe and the Royal Air Force, due to the use of strategic bombing and radars. Germany developed an unmanned flying bomb called V-1, which wasn't very effective, but did cause a lot of destruction. The British reaction was Project Aphrodite, an aircraft loaded with bombs that would take off with pilots, who would eject when the aircraft was passing the English Canal, and a “mothership” that would direct the aircraft to the target. But this also wasn't very successful (Shaw 2013) (Cook 2007). The United Kingdom, on the other hand, was pioneer in the development of radars and radio communication, since this was needed to defend its insular position of the Luftwaffe bombing. In the end, one of the results of these two Great Wars was the development of new technologies for air power, which would change forever the ways to do war in the skies (Johnson 1966).

1.2 UNNAMED AIR VEHICLE’S HISTORY:
COLD WAR AND WAR ON TERROR

With the end of World War II, the Cold War started and, with developing technologies, UAVs projects start to show real results. The Korean War (1950 – 1953) brought an innovation: the first operational unmanned helicopter, QH-50, from the
The Vietnam War (1955 – 1975) saw the most extensive use of drones until then. It was a turning point in the UAV history, because from that moment on it became a sensor instead of a target, acting in reconnaissance missions. The main UAV used by the United States in that war was the Lightning Bug, an evolution of Firebee. The central improvement of this new model was that Lightning Bug could be controlled by ground, unlike Firebee, that was launched from a plane and controlled by it. It performed 3,425 reconnaissance missions and was used to spy Chinese territory (Scheve 2008) (Shaw 2013) (Keane and Carr 2013).

In the Yom Kippur War (1973), Israel used Firebees (bought from the United States in 1971) to break the anti-aircraft missiles from Egypt. The use of UAV fueled Israel’s interest in this new technology. Later, in the 1980s, that country would develop modern drones like the Scout and the Pioneer, capable of live video transmissions (Blom 2010) (Shaw 2013) (Scheve 2008). In 1982, when Israel invaded Lebanon, the country also used UAVs to damage the Lebanese air defense system (Cook 2007).

Lots of projects of new UAVs were developed in the decades of 1960s, 1970s and 1980s. The great majority was cancelled because of lack of investment or consecutive failed tests. One of these projects was “Aquila”, from the United States, in 1975. The idea was of an UAV that could provide laser designation for a precision monition. The tests did well, but it was cancelled before it entered in production. One of the main obstacles was the size of the components (data link and mission payload), which didn’t fit the vehicle (Blom 2010).

The Gulf War (1990-1991), which encompassed Operation Desert Storm and Operation Desert Shield, had a great use of UAVs, mainly the Pioneer, which United States had brought from Israel in 1986. This UAV is still in service after the Gulf War because of its great acclamation, having flown in Bosnia, Haiti and Somalia (Keane and Carr 2013). In the 1990s, the United States gained experience in the use of UAVs (such as with the Pioneer, Hunter, Pointer, Exdrone and Predator) in combat situations, which proved very important in the later War on Terror (Blom 2010).

In fact, the War on Terror was another turning point for the UAV history, when it, besides being a sensor, turned into a weapon. After the 9/11 attacks, the United States unleashed Operation Enduring Freedom against Afghanistan (2001) and Operation Iraqi Freedom against Iraq (2003), using UAVs for surveillance, but also - and for the first time - for killing enemies. Equipping the UAV with weapons was a mark on the history of this technology, and the birth of the Unmanned Combat Air Vehicles (UCAVs). The main UAVs used on this war were the Predator and the Global Hawk, besides the Israeli Hunter UAV (Blom 2010). The Global Hawk was responsible for providing near-real-time, high-resolution intelligence, surveillance and reconnaissance images (Keane and Carr 2013).

The Predator, by its turn, could serve both functions: surveillance or target
killing. “When it’s not firing Hellfire anti-tank missiles at the enemy, the Predator uses its powerful surveillance cameras to give the theater air component commander continuous real-time surveillance of the battlefield” (Cook 2007, 5). Some of the Predator’s devices are the synthetic aperture radar and the de-icing equipment, which allows its use on overcast weather and for flying above the clouds – decreasing the risk of being detected by anti-aircraft fire – and the Ku-band satellite link, that allows the transmission of real-time full-motion video and facilitates the communication on air (Blom 2010).

1.3 UNNAMED AIR VEHICLES NOWADAYS

There are many UAV systems today, with different objectives and diverse characteristics. UAVs can serve for strategic or operational purposes, can be of short or long range and it can be of small or even micro sizes (Blom 2010).

Nowadays, unmanned aircraft such as the Predator are armed with laser designators and Hellfire missiles so they can perform attack orchestration and target termination, not just ISR. Other unmanned aircraft, such as Global Hawk, operate almost completely autonomously, remotely piloted by operators thousands of miles away – this type of vehicle uses GPS and transmits a live video feed back to its operations center. In addition, other unmanned aircraft are so small that they can be hand launched and have become useful in street fighting or other types of close-in engagements, where they can assist the operator in discovering imminent ambushes (Keane and Carr 2013, 569).

Nonetheless, UAVs are not restricted to the United States and Israel only. In fact, in the later years, UAVs have proliferated around the globe. The United States is still the country that most invests in UAVs procurement, research and developing, but this investment has shown to be stable. In the rest of the world, the interest on UAVs is growing. More than 70 countries have UAVs for different purposes. Of these, 50 have projects to develop UAVs, but most are just proposals. 23 countries are developing armed UAVs (China, France, Germany, Greece, India, Iran, Israel, Italy, Lebanon, North Korea, Pakistan, Russia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Tunisia, Turkey, United Arab Emirates, United States and United Kingdom). Israel and the United States are the largest exporters of UAVs, but China and Iran can also compete in this market (Davis, McNerney, et al. 2014).
2 STATEMENT OF THE ISSUE

The growing production of drones worldwide has been significant in recent years. However, its increasing usage creates a series of questions about its strategic importance in current international affairs, since, with the emergence of a multipolar and more complex world, new security issues arise. Also, its use does not have a clear legal framework, overshadowed in the domestic and international context. The debate about the use of drones has been very superficial inside the United Nations (United Nations 2013), especially regarding its military use (Woods 2013). A discussion of such topic in the Disarmament and International Committee encompasses its significance on strategic terms, its current utilization and its critics on moral and military terms.

2.1 THE STRATEGIC SIGNIFICANCE OF DRONES

The impact of drones in the strategic context is of very much importance. Drones’ costs and size are lower than a manned aircraft. However, since a drone is not operated individually, but as part of a more complex system consisting of several aircraft, sensors, ground control, and satellite linkages, the number of personnel needed to operate a Predator Combat Air Patrol is estimated to exceed 80 people, and 128 soldiers are needed to operate a Platoon of four MQ-1C Gray Eagles (Singer 2010). Still, in overall, drones present a slight advantage over manned aircraft (Davis, McNerney, et al. 2014). Therefore, when relating their low costs with their operational uses, it is shown the advantages to use drones in military operations. Drones like the Predator are often called “hunter-killer”, since they can be used to fly in search for targets and strike them. Surveillance drones can be very effective since due to its low-flying capability they are difficult to observe with a ground-based radar (Walsh 2013). As a result, airspace at low altitude is not strictly controlled, making it possible for one to penetrate into another nation’s airspace without being detected.

UAVs’ impact on economy is also of great importance, since, according to the RAND Corporation (Davis, McNerney, et al. 2014), there will be an increase in drone spending on procurement and research and development (R&D) from $6.6 billion in 2013 to $11.4 billion in 2022. Despite major US dominance on UAV procurement and R&D, projections show a relative increase of the rest of the world in this market, since more than 50 countries are currently developing UAVs, compared with more than 70 countries that have already acquired various types of drones. The map below shows current countries developing armed drones.
These trends raise questions such as “are UAVs transforming the conduction of war?”, which requires some deeper investigation. If a country has weak air defenses, it is possible for other countries to take advantage of UAVs to gather intelligence and deliver precise strikes on specific leaders. If the economic expansion of the drone market continues to rise, as it probably will, small, armed UAVs that might be mass-produced in the future probably would cost less, turning non-state actors able to buy or develop them in large numbers and view them as expendable. The capabilities that UAVs give in military terms are significant, but are only transformative in rare circumstances with technological advances in automation, miniaturization, stealth, and other fields that enhance its use in war and against a solid air defense (Hazelton 2013).

Nevertheless, armed drones are attractive to policymakers since they change the calculus for the employment of force. In other words, its impacts shape the politics of intervention: leaders can deploy drones instead of directly intervening. Having this in mind, drones, such as other air and sea platforms, are a form of power projection since they give countries the ability to mount tactical assaults without necessarily putting its personnel directly in danger and, thus, potentially not creating any domestic opposition.

However, according to Jacqueline L. Hazelton (2013), it is also possible to consider targeted killings by drones as an element of a defensive strategy:

[…]Targeted killings deter future attacks by denying armed groups the capability to conduct those attacks, and punishing those planning violence against the United States and its interests. The deterrence-by-denial argument requires consideration
not only of targeted killings but also drone strikes to directly degrade targeted groups’ capabilities in other ways. [...] Drone strikes in this analysis might also deter cooperation with a group based on fear or doubt about the group’s likely success. There are several other possible strategic effects of drone strikes. [...] Drone strikes can also be seen as the straightforward use of brute force to destroy those who would threaten the United States or its allies. In addition, they are an alliance tool supporting other states, such as Yemen and Pakistan. (Hazelton 2013, 3)

It is known that the most extensive and well-documented campaign of targeted killings is the one conducted by Israel against Palestinian militant organizations. Israel has used missiles fired from drones and from helicopters, bombs dropped from fixed-wing aircraft, armed raids, and snipers to kill militants (Singer 2010). However, there is a small literature that assesses the effectiveness of these targeted killings.

Another application of drones, which is still under a more theoretical approach, is the use of mini-drones to “swarm” a target, like a group of bees. Swarms would consist of independent parts with no central leader, implying that a strong self-organization is the key to the whole working. Swarms are very appealing for unmanned war, since they can perform incredibly complex tasks as long as each part follows very simple rules by a controller (Singer 2009). This concept is actually under development: the Santa Fe Institute is carrying out a study on these proliferated autonomous weapons (PRAWNS), trying to apply this concept in robotic warfare. Also under this line of research, Lockheed Martin has a similar program on robot swarms funded by DARPA, called the “Wolves of War” (Walsh 2013). The idea behind this is that, as the PRAWNS spread in an almost random search, they would broadcast to the group any targets they find and then enter in a formation to attack them.

If drones are game changers, any country who possesses them could decisively win in the battlefield, but not necessarily the war. Therefore, what matters is their relation with the associated country’s military doctrine, permitting its implementation in any tactical level. States can use armed UAVs in cases where they would otherwise do nothing, while in other situations they might use them instead of using more aggressively and directly approaches. Currently, the proliferation of armed UAVs is similar to the traditional spread of most conventional weapon systems: states capabilities are enhanced, but such is in a measured and evolutionary way (Walsh 2013). It is the way countries use drones with their strategy and policy that could shape the way they conduct conflicts and wars. Thus, something is revolutionary not so much because of what it can do, but rather because of the social, military, business, political, ethical, and legal questions it forces us to ask (Boot 2006). For such reasons, it is definitely a subjective question if currently drones are an evolution or revolution in military affairs, since its recent military uses still has not shown its true potentialities in a war.
2.2 THE UTILIZATION OF UAVS BY SELECTED STATES

2.2.1 THE INFORMAL POLICY OF THE UNITED STATES OF AMERICA

Despite being the most prominent user of drones, which, since 2012, started using them for targeted killing, the United States does not have an explicit doctrine or formal policy about their usage. The lack of a policy is pressuring the current government, since drone use is increasing every year. Between 2004 and 2007, in Pakistan alone the United States launched a total of ten drone strikes, evolving to 36 in 2008, 54 in 2009 and 122 in 2010, but declining in the next 3 years (New America Foundation 2013). According to the same source, this tendency of rise from 2009 until 2010, then declining until 2014, also applies to drone usage in Yemen (New America Foundation 2014). Also, fiscal year 2012’s budget included nearly $5 billion for drone research, development and procurement (Davis, McNerney, et al. 2014). Therefore, US strategy is more based on a collection of its conjectural decisions and related strategies than a solid UAV doctrine.

The evolution that led to the decision for the usage of drones for strikes is less documented and still has some aspects under secrecy. Its application seems to be based on US counterterrorism policy, which has barely changed between the two administrations, though there has been a shift in tone and emphasis. President Obama has not ended his war on terror, but shifted its instruments by using drone strikes, special operations and sophisticated surveillance to fight a covert war against Al-Qaeda and other Islamist networks. Therefore, the recent approach emphasizes relatively few ‘boots on the ground’ and avoids nation-building missions, as it had been done during former Bush Administration. Such posture has been described by members of Obama’s administration as efficient, and even morally necessary, given the economic and post-Iraq war state of the country (Tandler 2013). This can be seen in former Secretary of Defense Leon Panetta’s indication of drones as “the only game in town”, refereeing as an effective way to conduct and conclude the War on Terror (Boyle 2013).

There are two main bodies that coordinate drone operations: the CIA and the US Air Force, though the US Army also flies many of these. Placing the CIA in control of drone strikes contributes to the covert nature of the drone activities, especially when this organization does not disclose any details of its operations. For instance, the identification of targets is based on someone “who is an operational leader” or “an operative in the midst of actually training for or planning to carry out attacks against US persons or interests”, but these criteria also creates potential for wrongdoing, in the form of mistaken attacks and civilian casualties (Becker and Shane 2012). Nevertheless, it is still the Executive who has the final word on deciding which target to strike.
Therefore, the definition of a “personality” strike, that is, strikes targeting named, high-valued terrorists who are known to be planning an attack, could fit in US current actions. However, the commonly named “signature” strikes – strikes targeting “groups of men who bear certain signatures, or defining characteristics associated with terrorist activity, but whose identities aren’t known” – also seem to represent current drone strikes in Yemen and Pakistan (Davis, McNerney, et al. 2014). Such attacks are ordered based on intelligence denoting movement profiles and other indicators even if the names and functions of the targeted individuals are not known with certainty (Tandler 2013). It seems to be that there has been a preference from personality to signature strikes in the last years. According to a recent article in the New York Times, every week, more than 100 members of the government’s national security apparatus gather, by video teleconference, to analyze terrorist suspects’ biographies and recommend the president who should be the next target (Becker and Shane 2012). Names normally get approved after five or six sessions or are taken out if a suspect does not appear to be an imminent threat.

There are some legal principles that are used to justify any strike taken by drones. The Authorization to Use Military Force, a joint resolution passed by the Congress three days after 9/11, gives the President the authority to use “all necessary and appropriate force” against those whom determined “planned, authorized, committed or aided” the September 11th attacks (Zapfe 2013). It is also implicitly invoked in some official discourses the principle of national self-defense, present in Article 51 of the UN Charter, indicating that the United States is at war with Al Qaeda, and in this ongoing conflict, the country has the right to use force without official consent of the local government to disrupt and prevent future attacks.

When incorporated into a broader strategic framework, drones have been effective at providing troop support or to disrupt terrorist organizations. The US National Strategy for Counterterrorism lists “Disrupt, Degrade, Dismantle, and Defeat al-Qaida and Its Affiliates and Adherents”, eliminating safe havens used by Al Qaeda and taking its leaders off the field (Walsh 2013). The US military’s counterinsurgency doctrine stresses the importance of using force in a discriminate way so as not to alienate or stress local populations. Punishing insurgent organizations is only one of the strategies outlined in the current counterinsurgency doctrine: it also empha¬sizes a confidence building processes between the population and the local government, by providing public goods and coordinating the local government with international actors (Boyle 2013). As it has been shown in the previous section, drones have the capability to punish and deter insurgent organizations. However, bearing the counterinsurgency doctrine in mind, they cannot by themselves establish an effective state authority, since this requires large numbers of ground forces and civilians to pro¬vide services and to gain intelligence from the local population.

In the end, drones are most useful in precisely such areas, since they allow the
United States to project force when the national government has few other options. Nonetheless, such ungoverned spaces present two key challenges for the effective use of drone strikes. First, the absence of military units in the territory makes it very difficult to gather human intelligence on the activities of militant groups, given a margin of error that can kill wrong targets or civilians. Second, ungoverned spaces also allows armed groups to proliferate and form complex and short-lived alliances, increasing the challenge of targeting only militants that oppose the United States (Walsh 2013).

Not only against counterinsurgency action are the United States showing a growing interest to use unmanned vehicles in their national defense programs. Current Navy programs are also moving towards the constant use of unmanned systems due to the threats sensed by the United States in relation to other countries which are creating forms to deny U.S. use and access of sea and air (Singer 2010). The concept of an unmanned vessel, as its technology, is at the initial phases yet. However, US Navy is already exploiting such concepts to integrate them into manned operations.

To legitimate its actions, its legislations, its doctrinal reformulation and the current technological advances regarding the use of drones, there will be innumerable challenges for the United States security policy agenda. Without a consolidated strategy, current operations will face the sound critic that such air strikes are only a short-term successful tactic that may have unplanned long-term consequences. Also, the failure to provide legal justification will lead to growing denunciations of international law violations.

2.2.2 The Dual-Position of Israel

Israel holds a particular position in the Middle East: it is surrounded by states that are against its interests in the region. This is further complicated by the numerous non-state organizations openly hostile to Israel’s claim as a Jewish state, such as Hezbollah and Hamas, which constitutes a danger to the country’s integrity. With that being said, the Israel Defense Forces (IDF) has the complex task of patrolling and defending the country’s skies through the Israeli Air Force (IAF). Such endeavor is greatly hampered by Israel’s notion of eradicating terrorist threats in foreign territories – notably Gaza – as a strategy of national security (Israel 2009). In that sense, drones are a valuable auxiliary asset to the accomplishment of IAF’s missions, which include the creation of aerial intelligence picture, carrying out search, rescue and aerial evacuation missions, and, most importantly, hitting targets deep into enemy territory (Israeli Air Force 2014).

On the other hand, UAVs are also considered a serious threat to the security of Israel (Israel Defense Forces 2013). More recently, the country has been dealing with
the constant threat of airborne attacks on its northern frontier by Hezbollah’s drones in Lebanon – speculatively supplied by Iranian allies –, or even by Hamas’ ones in West Bank (Dreazen 2014). On April, 2013, two unidentified UAVs were intercepted and downed by the IAF off Israel’s coast. The event occurred a few months after the incident on which another UAV, allegedly from Hezbollah, breached 225km of Israeli airspace over the northern Negev, near the nuclear facility of Dimona, before being destroyed. On the occasion, the IDF stated that any attempts made to violate Israel’s sovereignty would not be tolerated (Israel Defense Forces 2013). While no real damage has been done by terrorist groups to Israel’s infrastructure so far, infiltrating the country’s airspace represents a “propaganda victory” for militias, earning them more credibility among recruits, aside from the fact that drones can help Hezbollah’s missile targeting improve by providing intelligence to the group (Dreazen 2014). The psychological effects of these breaches can also be felt, as a long-felt sense of security and superiority starts being questioned by the population.

According to Ophir Shoham (Harel 2013), head of Israel’s Defense Ministry’s Research and Development Division, the development of drone technology was one of the country’s best investments. Israel is on the forefront of unmanned vehicles advancements alongside the United States. Having a long history of innovation on military technology as backdrop, Israel has been able to produce state-of-the-art surveillance drones such as the Eitan and the Heron. It has never publicly confirmed the possession of armed drones, although security officials have privately reported their existence and further utilization for eliminating specific targets in the Gaza Strip (Dreazen 2014). Furthermore, Israel currently stands as the world’s largest exporter of UAVs. As of 2010, 42 foreign governments had acquired Israeli drones, accounting for more than ten per cent of the country’s military exports (Davis, McNerney, et al. 2014). Therefore, drones represent a dual concept for Israel: they can be one of IDF’s means of achieving security as much as they can be a threat to the integrity of the Jewish state in the hands of the enemy.

2.2.3 RUSSIA AND THE COLLECTIVE SECURITY TREATY ORGANIZATION

In many ways, Russia has a similar struggle against terrorism as the United States. The main difference lies in the fact that the groups targeted by Russia offer a risk of separatism and are settled nearby Russian territory and within it, spreading from Chechnya, to the Caucasus region and as far as Central Asia. Connections between Chechen extremists and Al-Qaeda in Afghanistan, for example, are well established for decades (Reis and Simionato 2013). This gives evidence to the complex, transnational issue which Russia and its allies have to deal with. In this sense, aviation technology in the form of drones can come as a possible solution.
Back in 2012, Russian President Vladimir Putin stated how “the role of aviation in armed combat is increasing” and that “aviation systems play a decisive role in achieving military success”. About drones, Mr. Putin said that

[Russia] should very actively develop unpiloted aircraft programmes. According to experts’ recommendations, this is the most important direction in aviation development. Here, we need the full line, including automated strike aircraft, reconnaissance drones and other systems. As you know, unpiloted aircraft are being used more and more actively in armed conflicts. And I must say, they are being used effectively (Putin 2012, online).

However, the efficacy of the country’s unmanned aircraft battalion has been put into question since the Georgian War in 2008, since they were not enough to bring a decisive advantage by air to the Russians (Galeotti 2014). Therefore, the need for modernization is pressing Russia and this does not go unnoticed for its Ministry of Defense, which in 2013 ordered to double the speed of the research and procurement of drones. Before that, in 2012, President Putin had announced a budget of US$12.2 billion to be invested in UAV development through 2020 (Galeotti 2014). At the same time, Russia is willing to differentiate its drone strategy from its North-American counterparts. According to Mr. Putin, “drones are not video games” and Russia is “not going to operate them as other countries do” (Russia Today 2013). The Minister of Foreign Affairs emphasized how Russia values consent above all for drone operations to be conducted in foreign territories (Lavrov 2012).

So far, Russia’s coordination with its allies and neighbors for the development of a transnational counterterrorism strategy utilizing drones has shown a steady rise. The main arena for this development is the Collective Security Treaty Organization (CSTO), whose member-States are Russia, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan and Armenia. In 2012, the organization’s Rapid Reaction Forces (RRF) conducted a military exercise in Armenia, where, among the presence of high-level officials from all members, Armenian UAVs were utilized (Khachatrian 2012). Furthermore, in 2011, CSTO launched the Interstate Corporation for Development in order to promote scientific, industrial and high-tech cooperation among the former Soviet countries and, more specifically, to build drones (Charnysh 2012). Thus, according to Kotanjian (2013), CSTO drones could even be useful for pacification missions in Afghanistan.

2.2.4 China’s Armed Peace

Drone warfare might be seen as ideal to settle some of the main issues that torment the People’s Republic of China. Its support for terrorism containment
strategies can be applied to separatist movements in the provinces of Xinjiang and Tibet. Remote reconnaissance is also fit to monitor disputed territories in the South and East China Sea (Erickson and Strange 2013). Accordingly, China’s economic power is sufficient to allow the country to develop its own fleet of unmanned aircrafts, which it is already doing, having rapidly achieved excellence in the late years. For example, an aviation exposition in Beijing showcased the CH-4 model, compared to the North-American Predator. It can carry four to six missiles and has the operational reach of 3,500km (Wickenkamp 2013). Two-year long cyber-attacks perpetrated against defense contractors in the US, focused specifically on drone technology, are attributed to the People’s Liberation Army (Wong 2013). If indeed truthful, these would just showcase the country’s ambitious strategy to attain a forefront position on drone manufacturing, for their own use or for exports, with the aid of international technology – being that voluntary or not.

To this day, China has not utilized armed UAVs to exterminate targets outside of its territory, standing firmly by the country’s general position against foreign intervention. However, that was almost reversed. On 2011, the Chinese hunt for a Burmese notorious drug trafficker and warlord, which acted on the Golden Triangle of opium production in China, Myanmar, Laos and Thailand, led a searching party to his hideout in Northeast Myanmar. Security officials were prompt to publicly suggest the utilization of drones to perform an air strike and execute the drug lord. The operation was not taken forward, nevertheless, and China decided to employ a costly ground force to perform a capture in Laotian territory instead (Hong 2014). Whether the decision was motivated by fear of large political retaliation or by lack of trust on the system’s targeting capabilities remains unknown. On the year of 2013, yet another singular event took place. The Chinese navy had sent a surveillance drone to the surroundings of the Diaoyu Islands, claimed by Japan under the name of Senkakus. The maneuver was detected by Japanese patrols and was taken as a serious offense by the Japanese government (Wong 2013).

The trend established by China’s drone development is already being classified as “worrisome” by the North American Department of Defense (Defense Science Board 2012, 78-80). As China’s military capabilities grow, it seems to leave the West uneasy regarding its intentions. It is uncertain for how long China may withhold an international drone policy because of political constraints. As an example, combating terrorism in Central Asia through a more comprehensive military cooperation alongside the Shanghai Cooperation Organization (SCO) has much to benefit Beijing (Reis and Simionato 2013). Furthermore, in relation to territorial disputes, according to a retired major general and director of the China Arms Control and Disarmament Association, Chinese drones are designed precisely to operate in contested airspace and are a “very useful instrument for safeguarding maritime sovereignty” (Wong 2013). However dormant its intentions on expanding
their utilization of drones to foreign airspace may be at the present moment, China is still a relevant player to look out for.

2.3 CRITICISM

2.3.1 STRATEGIC DEFICIENCIES AND ITS CONSEQUENCES

As it has been seen in the last sections, arguments for the effectiveness of drone strategy can be subdivided into four separate claims: (1) drones are effective at killing terrorists with minimal civilian casualties; (2) drones have been successful at killing so called ‘high value targets’ (HVTs); (3) using drones puts such pressure on terrorist organizations that it degrades their organizational capacity and ability to strike; and (4) the cost–benefit analysis of their use relative to other options—such as the deployment of ground troops—provides a compelling argument in their favor.

On behalf of the first argument, the claim that drones are effective at killing terrorist operatives without causing civilian casualties, its critics say it is based on data of questionable reliability and validity (Boyle 2013). Since the US drone program is classified, the government never provides a definitive number of strikes or the casualties from these strikes. Organizations like the New America and the Bureau of Investigative Journalism tried to count the number of militants and non-combatants killed in drone strikes, but faced several challenges: drone strikes normally take place in remote and dangerous areas, making it difficult for researchers to operate and to identify victims. Also, it is difficult for researchers to differentiate between “militant” and “noncombatant”, since they are not necessarily mutually exclusive (The Bureau of Investigative Journalism 2014).

Since current policy sees any individual related to a terrorist group a possible target, the result of this ‘guilt by association’ loses identification standards by which the US selects targets for drone strikes. This appears to be empirically valid, since there are innumerable news relating the deaths of non-combatants and the destruction of buildings (most of them mosques) by such strikes (Foust and Boyle 2012). As mentioned earlier, the concept of ‘signature strikes’, where the criteria to select a target are based not on the combatant status or its identity but rather their ‘pattern of behavior’, reaches many possible individuals as targets: if a person was near a known Al-Qaeda building, or loading a truck with possible bomb-making material or even crossing borders multiple times in a short period, it can be taken to the discussion table as a possible target.

Second, the High Value Targets (HVT) argument has also empirical problems: they represent only 2% of the total number of deaths from drone strikes and the remaining 98% of drone strikes have been directed against lower-ranking operatives.
and civilians (Walsh 2013). Even if there is a large margin of error, all empirical studies show that if the principal mission of drone strikes is to eliminate HVT, they are not doing it right.

In relation to the third argument, which advocates that drones have been effective at placing sufficient pressure on terrorist activities to degrade their organizational capacity and ability to strike, there is evidence from reports that militants find it harder to operate due to the attacks. However, it does not neutralize them. They may even disperse and expand to other areas, deepening the conflicts in states like Mali and Syria (Boyle 2013). Another critic related to this is that drones are actually counter-productive, since they can foster anti-American sentiment, enabling recruitment to non-state armed groups, and motivating further violent attacks (Walsh 2013). On a long term approach, this can lead to what is known as “blowback”, that is, incidents that arise years later as an unintended consequence of actions taken in the present, for an example, the rise of Taliban or the September 11th attacks (Swift 2012).

Walsh (2013) gathered several statistical studies that try to find any correlational cause between drone strikes and insurgents activities. One of them shows a pattern in which increases in terrorism are followed by more drone strikes, that is, spikes in terrorist attacks precede (rather than follow) increases in militant deaths from drones. However, the same study indicates that insurgents can respond to drone strikes by deliberately escalating and concentrating their attacks in other, more populous, and politically important regions, distorting the statistics.

Still in relation to Walsh’s gatherings, another research measures both the occurrence of drone strikes as well as the success of the strikes in killing leaders of a militant group. What has been found is that drone strikes have no consistent relationship to terrorist violence in Afghanistan. Finally, in relation to applying strikes only to militant leaders in Pakistan, the research concludes that they do not fundamentally alter the patterns of violence. However, another study finds a strong, positive relationship between drone strikes and subsequent terrorist attacks in Pakistan, suggesting that drones help fuel political violence in the country. What pervades all the researches gathered is that, having drones strikes as a tool for reducing violence, they are not an effective tool for achieving such goal. Also, the relationships between drone strikes and terrorist attacks, especially in Pakistan, are quite variable. In most of the statistical models encountered, Walsh concludes that drone strikes are associated with both an increase and a decrease in subsequent terrorism (Walsh 2013). Since there is difficulty to find a consistent temporal pattern, the determination of such relationships indicated here are hard to determine. These

4 Drone strikes reduce the capacity of the Haqqani network in Afghanistan to respond with violence in the subsequent week, but the network undertakes considerably more terrorist attacks in the second week after a drone strike (New America Foundation 2014).
problems show the complexity created by drone strikes: its consequences are several for groups’ political violence, expanding propaganda and operational reorganization.

This last aspect requires more consideration, since reorganization may be understood as a fragmentation of the terrorist group, making it more difficult for the authorities to employ selective violence (Boyle 2013). Not even drones can collect the necessary amount of intelligence about the location, movements, and communications of all individuals. What can be expected is an expansion of the selective profiling of a target, increasing the indiscriminate violence applied.

Retaking the last argument for drone effectiveness, a number of experts have argued that drone strikes are not only effective but even morally required, because they cause fewer civilian casualties than air strikes or ground operations in combat zones. It is difficult to compare the effectiveness of drone strikes versus carefully constructed covert operations against HVTs. Therefore, as the critics have shown, each of the most common claims for the effectiveness of drones is based on weak empirical evidence, questionable assumptions and logical fallacies (Foust and Boyle 2012).

It is also interesting to analyze the strategic costs of the use of drones in the affected regions/countries. First of all, the Pakistani government is under intense pressure from growing popular hostility to the drone strikes policy. A Pew Research Center poll in June 2012 revealed that 74 per cent of Pakistanis now consider the United States an enemy (New America Foundation 2013). Pakistani leaders have also felt the growing dissatisfaction and distance between themselves and the American drone policy which is being followed. Not only detachment, but also an antagonism is brewing in the Pakistani government, especially after the humiliating invasion of US SEALs to Osama Bin Laden’s compound. In Yemen, drone strikes are replicating some of the same dynamics evident in Pakistan (Boyle 2013). As also mentioned in the other section, the process to select targets is normally pinpointed by, normally local, paid informants who place small electronic targeting devices in homes, phones or vehicles of suspected terrorists, giving space to question if the suspect is actually a terrorist or person which the informant has personal problems (Singer 2010). Broadly speaking, there might be dangers if drone usage expands without any formal norms: it might undermine the normative prohibition respected by states of requiring a legal basis for the assassination of leaders and government officials. If murder without due process or trial is normalized as a tool of state action, the approach of physical elimination would distort the legitimacy of current relations between states.

2.4.2 Humanitarian Law, War Ethics, Political Implications and Sovereignty

According to Peter Mauer, President of the International Committee of the...
Red Cross (ICRC),

Under international humanitarian law – the rules of war [...] – drones are not expressly prohibited, nor are they considered to be inherently indiscriminate or perfidious. In this respect, they are no different from weapons launched from manned aircraft such as helicopters or other combat aircraft. It is important to emphasize, however, that while drones are not unlawful in themselves, their use is subject to international law (Maurer 2013, online).

While many have praised the use of armed drones for their abilities of minimizing civilian causalities, in accordance to the principles of international humanitarian law, a strong opposition has also been formed during the last decade against their usage. One of the main points of criticism towards drone warfare by Human Rights activists lies in relation to a strategic deficiency of the weapons: the difficulty to differentiate combatants from non-combatants. So far, there have been countless reports of hundreds of civilian causalities resulting from targeting mistakes and irresponsible utilization of UAVs in the Gaza Strip, Yemen, Pakistan and Afghanistan (Emmerson 2014). In regard to precision, drone technology undeniably represents a significant evolution for aviation. Yet, all airstrikes are accompanied by collateral damage, which is extremely hard to control, and are subjected to weather conditions or operational issues, even if it originates from a UAV, debunking the widely broadcasted idea that drones have a pinpoint accuracy (Cole 2013). Furthermore, with or without precision, the utilization of drones necessarily involves an expansion of targeting. Whereas in conventional warfare armed combatants are the main focus of obliteration, UAV strikes also target political leaderships of non-state organizations, such as recruiters, preachers and propagandists (Waldron 2013).

Aside from that, drone strikes are conducted by operators that may be considered unlawful and protected by secrecy – as the case of CIA agents acting in the stead of the North-American Ministry of Defense personnel, those of which are strictly subject to a military chain of command as well as military ethics (Waldron 2013). This reality makes individual and organizational accountability for humanitarian law violations something extremely hard to pursue.

Morally speaking, it is said that drone warfare makes it too easy and cheap for operators to resort to lethal military action. This is further aggravated by what is called the “Playstation mentality”, which consists on lowering the threshold of reality because of the great physical distance between drone operators and the extermination perpetuated by UAVs. Even considering the military chain of command and the professionalism of drone operators, it is reported that the mentality of detachment from the act of killing persists (Cole 2013). Aside from reducing the economic cost of employing lethal actions, UAVs also reduce its political cost in the sense that governments won’t have to deal with the risk of losing soldiers in the battlefield, which
gives yet another reason to perpetuate this type of warfare and violence (Cole 2013).

Shah (2013) emphasizes that drone warfare leads to the extension of conflicts’ duration – as the case of the War on Terror – which in turn greatly contributes to the social and political destabilization of countries where they take place. Although the United States has claimed responsibility for the elimination of core leaderships of Al-Qaeda in Pakistan through covert tactics involving UAVs, there has been no report of a diminishment of terrorism in the country. In fact, the problem has become even more complex, as terrorists moved from the tribal areas in the Northeast to the highly-populated urban centers of Karachi or Islamabad, since, in opposition to rural scenarios, it is almost impossible for drones to obtain precise targeting among cities. An increasing number of terrorist attacks are taking place in these cities and, as a result, more people are now susceptible to the threat of terror. On the other hand, it can be said that it is difficult to determine precisely if this shift is in fact a direct result from drone strikes in tribal areas.

Aside from the expansion of the targeting, it can also be said that drone operations expand the geographical area of the operations, involving covert activities in territories that were not initially delineated in strategy plans (Waldron 2013). The aforementioned covert operations in Somalia are an example of that, as the hunt for terrorist leaderships there targets people that were somewhat connected to sub-state organizations in Yemen. In some cases, drone strikes in both countries even depart from the same military bases, like Camp Lemonnier in Djibouti. Moreover, such argument is supported by evidence of an enlarging North-American intelligence network in Sub-Saharan Africa. Terrorist groups like Boko Haram, Al-Qaeda in the Islamic Maghreb (AQIM) and the Lord’s Resistance Army (LRA) would all be targets of airstrikes to be launched from drone bases in Burkina Faso, Uganda, Morocco, Niger, Ethiopia and Djibouti (Al Jazeera 2013). As Waldron (2013) points out, there is alarm about the proliferation of this phenomenon, as plans for drone strikes against Mexican and Colombian drug cartels are already being laid out.

Finally, there is one more direct and grave implication of drone warfare: the issue of sovereignty. A considerable percentage of drone operations make use of foreign airspace without the express formal authorization of central governments. By a simple and rational perspective, such acts constitute disrespect to state’s sovereignty and should, therefore, be condemned by all signatories of the Charter of the United Nations – especially when the non-transparency of the attacks is taken into account. However, the international law principle of self-defense could be evoked under these circumstances, by alleging that counterterrorism preemptively combats a direct threat to the security of a state (Emmerson 2014). By contrast, legitimizing this new form of warfare can also legitimate it when it is in the hands of opponents, being a rival state or a sub-state organization (Waldron 2013).
2.4 CASE STUDIES

2.4.1 PAKISTAN

The current situation in Pakistan is deeply connected to that of its neighbor, Afghanistan. Its roots, in fact, go way backward, tied to the historic rivalry between Pakistan and India and the “Great Game” played in Central Asia. Ever since the country’s independence from the British rule, Pakistan’s Army has enjoyed high levels of autonomy. Such special status, allied with the Army’s perceived responsibility to protect the Islamic State, has allowed the institution to conduct its own missions, following independent pathways that are not always in consonance with that of the central government. In this interim, the Pakistani intelligence organ, the Inter-Services Intelligence (ISI), has played a large role in these missions (Rogers 2014). One of its long-standing policies is that of maintaining a high level of influence over Afghanistan in order to counter-balance Indian aspirations in the region that might be driven against Pakistan. The ISI has been, therefore, greatly responsible for the establishment of the Afghan Taliban – which was initially in accordance to the North-American plan of destabilizing the Soviet Union rule within Afghanistan. The Afghan Taliban was able to handle against Soviet operations by being provided safe-haven and training in the North-Western portion of Pakistan, the so-called Federal Administered Tribal Areas, along its highly porous borders with Afghanistan (Rogers 2014).

Soon, the cross border flow of paramilitary groups created an environment that was ideal for the settling of non-state extremist actors, which was enough to attract other groups into the region. Within this context of fostered extremism, Al-Qaeda came into this Pakistani region between 2001 and 2002, establishing there its new base of operations for global terrorism. For Pakistan’s dismay, it also led to the formation of terrorist groups that are against the country’s central authority as well. The Pakistani Taliban is one of those groups, which commits acts of terror against the population as an opposition to the secularization of the State (Rogers 2014).

It was in this scenario that the United States came to Pakistan with the mission of eradicating terrorism along the border with Afghanistan, as part of the ongoing War on Terror. The backbone of the North-American operation in Pakistan was and still remains in surveillance and the targeted killing of high and medium-level officials by UAVs – particularly in the region of North Waziristan. Drone strikes in the country are conducted by members of the Central Intelligence Agency (CIA) and the military’s Joint Special Organization Command (JOAC) – both organs with a recognized lack of public transparency. The drones are launched from airbases within the country and are suspected to count with the occasional collaboration of the United Kingdom, Germany and Australia (Amnesty International 2013). So far,
the total number of causalities caused by drone strikes is estimated between 2,500 and 3,600; of those, between 400 and 950 were civilians. Most of the numbers correspond to the period of Barack Obama’s administration (Serle and Ross 2014).

Thus, the “drone war” in Pakistan is one of the world’s most recognized counterterrorism campaigns – and probably one of the most criticized for its many flaws. Its contribution to the aggravation of domestic instability in Pakistan is a well-known fact. For all of the turmoil caused by civilian deaths and operational mistakes, the central government is very critical about North-American actions in the country. It publicly points out that the drone war is a severe offense to Pakistan’s sovereignty and that it must end at once. However, support for these operations can be found in the Armed Forces of the country. It has been stated that the ISI actively gives support to the drone strikes in North Waziristan (Amnesty International 2013). While it is true that drones make it more difficult to support proxy operations by the Afghan Taliban, the annihilation of the Pakistani Taliban ends up being a priority for the ISI, which ultimately allies itself with the CIA in this aspect. Nevertheless, it has been reported that strikes have considerably diminished since 2012, reaching an all-time low in 2013 (Emmerson 2014). Still, the continuous build-up of a strong anti-American feeling in Pakistan is a reality.

2.4.2 Somalia

Ever since 1991, Somalia has suffered the harsh consequences of an enduring Civil War. The conflict led to the collapse of the state, which then on lacked a central authority powerful enough to bring cohesion and stability to the country. Numerous attempts by the international community have been made to reestablish order in Somalia in the past decades. The United Nations Operation in Somalia (UNOSOM) lasted between the years of 1993 and 1995, failing at the renewed intensity of the armed conflicts. External mediation efforts led to the establishment of two transitional governments: the Transitional National Government (TNG) in 2000 and the Transitional Federal Government (TFG) in 2004. Both were mildly successful in transferring some of the country’s administration back to federal entities, as well as reestablishing national institutions (Menkhaus 2004).

The year of 2006 saw the conflict between the TFG, with the aid of Ethiopian troops and U.S. intelligence, against the Islamic Courts Union (ICU), a rival administration in southern Somalia. The ICU was defeated and its leadership split, resulting in the emergence of the extremist group Al-Shabab. With the end of the TFG’s mandate in 2012, the Federal Government of Somalia was established, and, among growing stability, the country was able to initiate its slow reconstruction, with many challenges ahead.
Foreign intervention has had an important role in the continuity of armed conflict in Somalia. The country has been an arena for a proxy war between Ethiopia – seeking a weak, subservient client state – and the Gulf States – encouraging the centralization of a strong conservative ally (Menkhaus 2004). Furthermore, neighbors Kenya and Ethiopia suffer a grave security threat from the spillover of Somali instability. This situation was further aggravated since the merger between Al-Shabab and Al-Qaeda in 2012. In 2013, Al-Shabab claimed responsibility for the Westgate Mall terrorist attack in Nairobi, Kenya, which resulted in 67 deaths (Howden 2013).

War lords, terrorist leaders and other non-state actors have been targets for North-American unmanned airstrikes in Somalia since 2011. The campaign started as an expansion of the drone war in Yemen, especially after the revelation of ties between Al-Shabab and Al-Qaeda in the Arabian Peninsula (AQAP). Whereas the United States used to rely on regional forces for stabilization in Somalia, such as the African Union, their most recent plan consists mainly of intelligence work – considered inconclusive by many (Mazzetti and Schmitt 2011). Armed Reaper drones that operate in Somalia are known to be secretly launched from US bases in Djibouti, Ethiopia and the Seychelles. It is also speculated that Kenya hosts a US drone base (Whitlock 2011). All these actions are presumably coordinated by the Combined Joint Task Force-Horn of Africa (CJTF-HOA), subordinated to the US Africa Command (AFRICOM). So far, civilian causalities in Somalia were very hard to track due to the lack of reliable independent reports and its imposed constraints, albeit some cases have been recognized by the UN (Emmerson 2014).

2.4.3 Yemen

In the case of Yemen, despite growing unpopularity within the local population, drones are showing to achieve its goals regarding United States and Yemen interests against the radical group Al-Qaeda in the Arabian Peninsula (AQAP). This organization became prominent in the early 2000s when it conducted terrorist activities in Saudi Arabia, but after a long series of failures in the country, AQAP regrouped in Yemen, merging with the local Al-Qaeda organization in 2009 (Terrill 2013). Also, with the presence of AQAP in the region, there is a growing emergent, parallel insurgent organization, called Ansar al-Sharia, which has militarily held large parts of territory, governing portions of Yemen and providing social services to its local people neglected by the regime (Alkarama 2013). Since Osama Bin Laden's death, most of the United States military and intelligence resources have been reallocated to neutralize AQAP members by the same methods applied in Afghanistan and Pakistan, especially in relation to drone use (Davis, McNerney, et al. 2014).
There are two important moments to consider: the September 2011 death of the terrorist leader Anwar al-Awlaki and the use of drones to support Yemen's May-June 2012 offensive against AQAP insurgents and the Ansar al-Shariah organization. The first moment was a test for the Obama government since Anwar al-Awlaki was an American-born cleric, therefore American citizen, and Al-Qaeda propagandist hiding in Yemen. When Awlaki was indicated as a major influence of terrorist attacks, the Obama administration was faced with an urgent question about ordering the killing of an American citizen without any trial (Becker and Shane 2012). After passing a long judicial process that provided the executive branch the possibility to choose al Awlaki's faith, president Obama gave his approval, and Awlaki was killed in September 2011, along with Samir Khan, an American citizen who was not on the target list but was traveling with him.

A second important moment is a series of events that involves what is believed to be the extensive use of drones to support a critical Yemeni government offensive against AQAP in May-June 2012. President Hadi unleashed an offensive against the terrorist organizations which seized territory in the southern provinces in order to restore the government legitimacy and to avoid a spread of anarchy throughout the country (Watts and Cilluffo 2012). Drones have been a valuable asset to aid Yemeni forces as they moved into combat, playing a significant role in winning the campaign, which ended when the last AQAP-controlled towns were recaptured in June 2012 (Tandler 2013).

Spillover effects of the fights against terrorism in the country have impacted a lot of provinces, like Al-Baydha. The area was under surveillance because of the influence of armed groups and the potential threat of an influx of militants into the province. This generated a lot of complaints by the side of local inhabitants, since for a year prior to the attack, drones had been flying over the region (Alkarama 2013). These surrounding areas are strategically important due to the highway that passes through it, connecting the provinces of the north to those of the south (Watts and Cilluffo 2012).

Nowadays, Defense Department can target suspects in Yemen whose names they do not know. However, even with this approach, it seems that Al-Qaeda’s appeal has also risen in the region. What the media referred as the “escalation of the secret US war” in Yemen can be understood as a terrorism offensive coinciding with an increase in US military and CIA airstrikes against Al-Qaeda leaders in Yemen (Becker and Shane 2012). The local government has relied, in part, on intelligence gathered by the CIA operatives and contractors in the contested tribal areas. Since most of the details are classified, there are rumors that the Yemeni government provides false information to the US government in order to get rid of political oppositions (Boyle 2013).
3 PREVIOUS INTERNATIONAL ACTIONS

Not until recently have the issues regarding the utilization of drones for military action been addressed by the international community. In many ways, this is related to the fact that airstrikes by unmanned vehicles have only started being employed at a significant scale with the advent of the War on Terror. Nonetheless, it is also important to consider that the uttermost complex nature of this phenomenon, alongside the unwillingness of key actors to actively cooperate in multilateral international organizations, has had its share in hampering progress towards cooperation and regulation on the issue. As a result, few declarations regarding UAV strikes and surveillance have been produced so far.

The International Civil Aviation Organization (ICAO) is the world's primary authority on any matters related to air navigation for civil purposes. Its establishment in 1944 via the implementation of the Chicago Convention broadened and solidified the efforts that led to the previous Paris Convention of 1919 - the first binding document to declare that each state has complete and exclusive sovereignty over the airspace above its territory. The Chicago Convention was fruitful due to the recognition by all states of the importance of international commerce and free transit of peoples by air, being their collective responsibility to safeguard it, under the auspices of the ICAO. Its Article 6 declared that foreign civil aircrafts were only allowed to fly above national territory when there existed formal agreements between two or more involved states. However, as stated on Article 3(a) of the Convention, the ICAO exempts itself from the responsibility of regulating non-civil flights that are carried out by states due to the largely controversial nature of air traffic by national police forces or the military on foreign territories (International Civil Aviation Organization n.d.).

Even so, the Chicago Convention does have specific guidelines regarding unmanned vehicles, present on its Article 8. According to it, no pilotless aircraft can enter foreign airspace without the express authorization or consent by foreign authorities. On 2011, with the recognition of the proliferation of drone technology as a worldwide phenomenon, member-states of the ICAO started working towards the establishment of a regulatory framework for the utilization of UAVs in civil instances, broadening the competence of Article 8. Through cooperative action and intense technical research, states successfully compiled a series of Standards and Recommended Practices (SARPs), which, together, serve as regulations for the use of UAVs in domestic or foreign airspace (International Civil Aviation Organization 2011). Although exclusive to the civil utilization of drones, these efforts can be recognized as a valid framework for international cooperation in the area. However, initiatives directed specifically at the armed use of drones in military operations still remain to be seen.
On 2013, the United Nations’ Special Rapporteur on the Promotion and Protection of Human Rights and Fundamental Freedoms While Countering Terrorism, Ben Emmerson, unveiled an interim report on extraterritorial drone strikes and their consequences around the world. By collecting extensive data from a number of separate cases with reported civilian causalities in Afghanistan, Pakistan, Yemen, Somalia and the Gaza Strip, Emmerson was able to reach the overall conclusion that UAV strikes conducted by the United States, the United Kingdom and Israel in these locations with the purpose of containing terrorist activities were causing severe violations of human rights and humanitarian law. The high number of deceased civilians caught between the conflicts gave evidence of the operations’ lethality for local populations, previously regarded as overall precise and accurate by foreign states. Furthermore, the Rapporteur pointed out the lack of transparency regarding these strikes, both by extraterritorial intelligence agencies and consenting states, which greatly aggravated investigations and, consequently, the protection of human rights (Emmerson 2014). The report ended with a series of recommendations to the United Nations’ Human Rights Council (UNHRC), urging all states to act responsibly and in accordance to the United Nations Charter when utilizing UAVs to combat terrorism (Emmerson 2014).

With these conclusions and appointments, the report was brought upon the United Nations’ General Assembly on December 2013. Along the vocal support and leadership of the Pakistani delegation, openly against North American covert operations in its territory, the Assembly was able to include a paragraph regarding drone strikes on the extensive resolution of that meeting, which was named “Protection of Human Rights and Fundamental Freedoms While Countering Terrorism” – A/RES/68/178. At the end of the sessions, the document was approved with unanimity (The Express Tribune 2013). Similarly, the European Parliament issued a resolution urging for a common position within the European Union on the use of armed drones. Conditions of transparency and consent were once again highlighted by the parliamentarians (Emmerson 2014).

Having a proper position from the General Assembly, the subject was then taken to the UNHRC, as initially urged by Emmerson. Once again, Pakistan presented the resolution, with co-sponsorship from Yemen and Switzerland. Among its paragraphs, it stated that the Council “urges all states to ensure that any measures employed to counter terrorism, including the use of remotely piloted

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5 Apart from Emmerson’s report, UN Special Rapporteur on extrajudicial, summary or arbitrary executions for the Office of the High Commissioner for Human Rights, Christof Heyns also produced an important document regarding drone technology on 2013. Heyns’ research focused primarily on the risks of increased autonomy on lethal robotics due to a robot’s or UAV’s lack of abilities to make qualitative assessments when dealing with human lives. His findings were presented to the UNHRC on Resolution A/HRC/23/47 (United Nations 2013).
aircraft or armed drones, comply with their obligations under international law [...] in particular the principles of precaution, distinction and proportionality” (Nebehay 2014). Eventually, resolution A/HRC/25/L.32 was adopted by the Council on March 2014, but there was no consensus at this time. From the 47 members of the forum, 27 were in favor, 14 abstained and 6 were against – among which were the United States, the United Kingdom and France (Nebehay 2014).

However remarkable was the fact that member-states were able to issue a resolution that regarded the utilization of armed UAVs for the first time in the UN system, it is inevitable to notice that the scope of such actions are still fairly limited and only at an initial stage. It is indeed outstanding that the international community has started to actively seek the protection of all peoples by the rule of law against the irresponsible and non-transparent use of drones. But states are yet to surpass the limited scope of Human Rights in order to tackle this complex situation, delving into matters of sovereignty and international security themselves.

4 BLOC POSITIONS

Despite its policy process indicated in the previous sections, the United States defends the use of drone strikes in the UN (Pilkington & Devereaux, US defends drone strikes as ‘necessary and just’ in face of UN criticism 2013). The Obama administration deems the use of drones as essential to act in world affairs and to eliminate terrorist threats (Obama 2013). Also, an important concern of the Obama administration is the proliferation of drones and the responsible use of these technologies (Zenko 2013). However, when it comes to international law responsibilities, the United States continues to avoid further discussion in other committees like the Human Rights Council (Global Research 2014). Other NATO members are also abstaining from the human rights debate, especially due to specific national interests. France, for instance, is using intelligence gathering drones in Mali (Hirsch 2012) and its planning to produce its own national drones in the next years.

6 Aside from not participating in the first days of the discussions, the United States - along France and the UK - insisted on the occasion that the human rights forum was not the most adequate place to discuss weapon systems. Instead, it suggested talks on the laws of war on a “non-politicized forum”, such as the one sponsored by the International Committee of the Red Cross (Nebehay 2014).

7 Interestingly, on January 2013 the UN Security Council was able to approve the employment of unarmed UAVs by the UN Organization Stabilization Mission in the Democratic Republic of Congo (MONUSCO). This was the first time that a peacekeeping mission adopted unmanned systems as part of their operations, recognizing the benefits of surveillance drones to monitor armed groups, displaced refugees and endangered civilians. The initiative was met by a vocal support of the United States (Better World Campaign 2013).
after buying American Reapers in 2012 (Hammad 2013). It seems that the country will enter in the drone market by intensifying its investments through cooperation agreements with other European countries (Defense Industry Daily 2014), which, therefore, shapes its drone policy.

Similar to its NATO allies, the United Kingdom sticks to a very similar line of action: despite its refusal to divulge ample information, the government is linked with the CIAs strikes in the Afghani territory, having launched more than 400 strikes since 2008 (Cole, New British drone strike stats released to Drone Wars UK 2014). The country is also developing its own UAV, called Tiranis, with very advanced air system technology (Smith 2014). Germany is also entering the drone competition by indicating its internal production as a necessary step in the new contemporary warfare (Medick 2013). However, after declaring that it supports the use of unmanned weapons systems for the purposes of international disarmament and arms control, Germany has suspended the purchase of armed drones on the grounds that it categorically rejects illegal killings (RT 2013).

The Russian Federation’s struggle against terrorism, separatism and extremism is not likely to diminish in the near future, and all indicatives point towards an increase on the use of nationally-produced drones to combat these threats (Galeotti 2014). Russia, nevertheless, emphasizes that its drone policy is based on responsibility and respect to sovereignty (Lavrov 2012). That is one of the main reasons why the country is strengthening the role of the CSTO regionally, so that a coordinated strategy for the use of UAVs can be reached (Kotanjian 2013). Strongly allied to Russia’s stance in this matter due to political and military ties is Kazakhstan. As all nations in Central Asia, transnational crime is a constant threat to its homeland security (Reis and Simionato 2013). However, the country’s recent efforts to negotiate technology transfer deals with Israeli companies in order to establish an indigenous production of drones gives evidence to a new trend of diversification sought out by the Kazakh government (Kucera 2012). Belarus is another strongly committed member of the CSTO with close ties to Russia. Recent military exercises and conventions have showcased some of the country’s joint developments of drone technology with Russian companies. Moreover, Belarusian manufactured UAVs are increasingly being recognized and bought by foreign military forces (Parotnikau 2013).

When it comes to the utilization of drones in foreign airspace, China relies on its traditional doctrine of non-intervention and non-interference. All the same, Beijing considers itself free to do whatever it is necessary to maintain peace within its territory, which in its interpretations includes the disputed islands in South and East China Seas (Wong 2013). Furthermore, China has also a considerable share of responsibility for the recent proliferation of drones through the world. Aggressive production and sales strategies have given the right incentive for Chinese companies to widely explore the international market for unpiloted vehicles, notably in Africa and Asia, without the
political constraints found by the West (Davis, McNerney, et al. 2014).

The impending withdrawal of Western military forces from Afghanistan raises concern in Central Asia, as the slow process of state-building has not yet resulted in the assembly of fully capable armed forces for the Afghan government (Reis and Simionato 2013). Reports from the United Nations Assistance Mission in Afghanistan (UNAMA) bring forth a high number of civil causalities resulting from British and North-American drone strikes in the country, a tendency that has not withered in past months (Emmerson 2014). Moreover, drone strikes conducted by the CIA and JSOC along the border with Afghanistan have met an increasing disapproval by Pakistan’s population and Parliament (Shah 2013). That being said, recent actions such as the announcement of Operation Zarb-e-Azb and UAV acquisitions from China have shown Pakistan’s desire to strengthen its own military capabilities for fighting terrorism and, with that, lower its political costs (Keck 2014) (Santana and Shahzad 2014).

At the same time that Israel claims to be “surrounded” by hostility from its neighbors, the country is far from a position of fragility. It is currently on the forefront of drone technology in the world, and allegedly utilizes these capabilities to eradicate threats in foreign territory, notably in the Gaza Strip (Dreazen 2014). Not confirming the use of drones, Israel deemed all of its actions in Gaza as fully legitimate according to international law (Israel 2009). Iran, on the other hand, has a long history of autonomous drone development, notably from reverse engineering, due to its isolation in the international system. It has been accused of supplying proxy non-state actors such as Hamas and Hezbollah in other countries in the Middle East to fulfill its objectives against Israel (Davis, McNerney, et al. 2014). However, recent approximation between Iran and the West indicates a milder stance by the Iranian government.

Iraq is passing through a very difficult political moment, with its northern border being controlled by a fundamental Islamic group, which has been calling itself the Islamic State. On August 8th 2014, the United States started airstrikes in the region to protect civilians and fight the rebels. The government of Iraq has called such US help, and agrees with the use of UAVs to protect the Iraqi people and state (Lubold 2014).

Somalia, as previously shown, faces an increasing but still unknown numbers of air strikes, with indications that half of them are made by drones (Human Rights Clinic 2012). In regard to recent US drone operations in its territory, Somalia government had been pre-informed with some intelligence information about them. The government believes such actions with international partners are effective in a way that will help the country to be safe from terrorist activities (RBC Radio 2014).

On 2013, a military airfield was opened in Niger to serve as a base for drone operations in North Africa. North American UAVs flying from this location are
mainly being employed in support to French operations in Mali and surrounding regions. The Nigerien government, concerned with the porosity of the country’s borders, has so far welcomed these actions as viable means to combat terrorism (Schmitt 2013).

**Djibouti** is home to the only permanent military base from the United States in the African continent - and one of the top ranked in terms of covert UAV operations: Camp Lemonnier. Several US drones have flown from Djibouti ever since 2002 and are currently responsible for a generous percentage of all military takeoffs in the region. Due to its strategic location, flights from there can be carried out not only to the Horn of Africa, but also to the Arabian Peninsula, contributing to the notion that Lemonnier is the central base for drone operations in Africa and the Middle East (Whitlock, Remote U.S. base at core of secret operations 2012).

With the abduction of more than 200 schoolgirls in 2014, the use of drones became more relevant in **Nigeria**: at least one US Global Hawk surveillance drone is expected to be used to search the kidnapped girls (Associated Press 2014). However, it seems that the Nigerian government is reluctant in allowing the use of its air space by US drones (Windrem e Miklaszewski 2014). Among the debate on designating Boko Haram as a terrorist organization by the United States, thus allowing a more direct intervention of this country (Ibrahim 2013), the Nigerian government is increasingly inclined to foreign help in military situations involving insurgent organizations (Ong 2014). More controversial with the use of drones in its territory is **South Africa**, since its legislation has specific requirements that make much of the available UAV unable to comply (News24 2014). In general, South Africa, through active involvement in the International Civil Aviation Organization’s (ICAO) Unmanned Aircraft Systems Study Group, is developing guidance material and standards to guide contracting states in the development of their national regulations in relation to UAVs (SACAA 2014).

Other African countries do possess special foreign drone bases, like **Ethiopia**, a country whose relations were previously strained with the United States, but which is now retaking a more intense turn (Fiqir 2011). In **Lybia**, the use of drones by NATO was very intensive during the 2011 conflict, since the US flew drones to monitor chemical and biological sites (Barnes 2011). Nowadays, the country is currently trying to fortify its sovereignty by impeding the use of its air space by surveillance drones, since they are used to identify and capture Libyan terrorist suspects (Zenine e Nye 2014). Therefore, it seems that a new tendency in reducing the presence of external actors in Libyan territory is under development (Robertson, Cruickshank e Karadsheh 2012). **Egypt** is showing a new cooperation trend with Israel, by increasing its operations in the Sinai to crack down on the Al-Qaeda militancy by using Israeli-made drones (Dorell 2013). This new cooperation seems to strengthens if the turbulent internal process in the Egyptian political system goes
by the actual route, since many insurgent groups are emerging, questioning the new government (Yeranian 2013).

**Ukraine** is currently under a very intense political process, with not only a changing government, but also military tension within its borders. The usage of drones is clearly a very strong topic: Ukrainian Security Services and its Ministry of Defense finished an unauthorized flight of an UAV, shooting down the Russian-made device, a serial modification of the “Orlan-10” with an unknown chemical substance (Whiting 2014). A country with deteriorating relations with Israel and thus more reliant on US military assets, including on drone issues, is **Turkey**. The country has been bombing the Kurdish rebels of the Kurdistan Workers Party in northern Iraq by the use of intelligence gathered by US drones. Also, Turkey unveiled its own drone, known as the ANKA surveillance craft (Matthews 2011).

Neighboring **Syria**’s ongoing civil war does not leave drone usage behind. The speed and accuracy of airstrikes against rebels have increased since government forces began using surveillance drones, with Iran as their probable manufacturer (N. Walsh 2012). Also, a more sophisticated drone technology from Russia has given Syrian government troops new advantages in tracking and destroying their targets, giving much better view of the battlefield and an improved capacity to respond to incoming fire (Warrick 2013).

**Saudi Arabia** has signed an agreement to purchase China’s medium-altitude long-endurance unmanned Pterodactyl I, making it the first Arab country to acquire the drone (Guanzhong 2014). Despite allegations that Saudi Arabian air forces have been participating alongside the Americans in their drone war against Al-Qaeda in Yemen, the Saudi government objects its participation, but does not exclude intelligence cooperation (Nasser 2013). However, despite the confidential information about its operations, it is said that the United States has a drone base in Saudi Arabia to conduct its war against terrorism (Mali 2013). As previously shown, **Yemen** suffers daily with drone strikes against alleged terrorist locations. Nonetheless, the government seems to be inclined to US help, however indicating that the Yemeni president must first authorize any attack on its territory (Miller 2012).

Due to its northern border’s problems, **Mexico** has been acting together with the United States to combat important drug dealers, using American high attitude unarmed drones, which in a first moment were used only at the border of the two countries, but which now fly deep into the Mexican territory (BBC 2011). This action is in conflict with the Mexican Constitution that prohibits foreign military and law enforcement agents from operating in Mexico, except under extremely limited conditions. Even though, the government has agreed with drone patrol, reinforcing the cooperation between US and Mexico against a common threat. It is important to notice that Mexico agrees with the use of drones in its territory, but all actions are authorized by the government, respecting Mexican sovereignty (Thompson and
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Colombia also uses UAVs to combat drug trafficking, but with a much stronger support of the United States. The country has been using drones in counterterrorism and counter-narcotics operations, for information gathering, reconnaissance and surveillance against the Revolutionary Armed Forces of Colombia (FARC) and other drug gangs (Russia Today 2013). The main drones used in these missions are the Israeli Hermes 900 and the American ScanEagle, but Colombia is also developing its own UAVs, the Navigator X2 and the IRIS UAV (Robbins 2013). Another country in Latin America that has drug trafficking issues is Venezuela, which is also using UAVs to combat the problem. However, different from its neighbors, Venezuela is dealing with that without United States help, developing its own drone with the help of Iran. This UAV, named Harpy-001, is a small one for internal defense use, such as combating drug trafficking, monitoring Venezuela's border and fighting crime (Ellsworth 2012). Venezuela condemns the use of UAVs by the United States, believing that drones should not be used to disrespect the sovereignty of any country or kill innocent people (Pilkington and Devereaux 2013). Brazil is the country that has the highest number of drones in Latin America, mainly used to protect the Amazon and the Brazilian borders, and also, similar to other Latin America countries, to combat drug trafficking. Also, the country has considered using drones in urban areas, such as the slums in Rio de Janeiro (Russia Today 2013). The UAVs used by Brazil are from Israel; however, Brazil is also developing its own drones, like the Arara, the Tiriba and the Carcará (Earth Imaging Journal n.d.). In partnership with the Israeli Elbit Systems, Embraer has projects to develop and produce the first Brazilian military UAV, called Falcão (Herald Tribune n.d.). Brazil has shown its disapproval on United States actions in the Middle East, especially due to the high number of casualties that this kind of aircraft produces (Pilkington and Devereaux 2013). Cuba stands against the irresponsible use of UAVs by Western nations mainly because it disrespects the basic principle of the international system, namely the sovereignty of all states. The drones used by United States, for example, interfere in internal affairs of other nations by invading the airspace, collecting information and, even worse, killing nationals. Another critical point about the use of UAVs is the great number of casualties it produces, since a huge number of innocent people are killed by drones in 'accidents' (Vega 2012).

The number of drones in India is increasing: it has purchased UAVs from Israel (Heron UAVs) and plans to buy others. However, the country is also developing its own drone program and is even planning to equip its drones with precision-guided munitions (PMGs), with the collaboration of Israel and the United States. The increasing number of drones in the Indian Forces has the objective of boosting Indian surveillance capabilities in order to defend the country from regional rivals such as Pakistan, and to counter insurgency groups (Keck, India Eyes Drone-Launched Smart Bombs 2013). India does not plan to use its UAVs in foreign territory, but
agrees with the position that every state has the right to defend itself (Dvorin 2013). **Australia** has bought drones from United States’ companies and plans to purchase other units from the country, such as the Triton, a maritime surveillance UAV. These drones will be used to patrol the northern border of the country, in the Indian Ocean, in order to protect Australian territory, commercial interests and energy resources (Russia Today 2014). Australia is not contrary to the use of armed UAVs, but agrees on the need of further discussing the topic (Financial Review 2013).

The UAV market in Asia Pacific is growing fast and **Indonesia** is following this trend. The country has a drone program (Wulung), which main objective is the surveillance of the Indonesian territory and its borders. However, Indonesia’s government has long-term plans to develop an armed UAV (The Jakarta Post 2012). Indonesia disagrees with the use of drones in foreign territories, seeing this kind of action as a threat to sovereignty of the countries (Sambhi 2012). **Philippines** has two national UAVs (Raptor and Knight Falcon) and is developing a third one. These drones, together with the collaboration of the United States, are used for surveillance and reconnaissance in order to combat separatist and insurgent Muslim groups (Felongco 2013). It is important to notice that the government has authorized these missions, but denies the use of UAVs to combat. However, in 2006, a strike from a Predator UAV is said to have hit a suspected militant camp in Philippines, with the intention of killing an Indonesian terrorist, but the attack did not reach its main target, killing other people instead (Mazzetti, The Drone Zone 2012). Officially, this event is denied by the Philippines’ government, which maintains its position against the use of UAVs for strikes, although authorizing surveillance and reconnaissance missions in its territory.

**Singapore** is also concerned with the rising use of drones in Southwest Asia, and has UAVs from the Singapore Technologies Aerospace and from the Israel Aerospace Industries, both for reconnaissance. Besides that, Singapore has created a special Command in its Air Force for Unmanned Aerial Vehicle in 2007. The discussion about the UAVs is important for Singapore, and it agrees with the use of them in reconnaissance missions (Cohen 2014).

As other countries in Southeast Asia, **Japan** is also investing in UAVs. The main reason for that is the dispute with China over the Senkaku Islands, in the East China Sea (Brimley, FitzGerald and Ratner 2013). China has its UAVs patrolling the area, and Japan is willing to buy Global Hawk UAVs from United States to oppose the Chinese presence in the region and to monitor Japanese territories (Kaiman and McCurry 2013). Japan will not accept that drones from other countries enter in Japanese territory without its agreement, since the country is associated with the Missile Technology Control Regime. **The Republic of Korea** is also joining the team of countries that has drones, and plans to purchase the American Global Hawks UAVs. The main objectives of the Republic of Korea with the UAVs are to
monitor and control the northern neighbor, the Democratic People’s Republic of Korea, through reconnaissance missions (Hardy 2013). In the beginning of 2013, three foreign drones were found in the Republic of Korea’s territory, and Seoul affirmed that they were DPRK’s spy UAVs (The Guardian 2014), having strongly rejected this kind of action.

REFERENCES


drone_war_comes_to_asia (accessed June 20, 2014).


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Obama, Barack. “Remarks by the President at the National Defense University.”


RT. ‘We reject illegal killings’: Germany suspends drone purchase. 11 19, 2013. http://
Smith, Clive. UK ‘borrowed’ US drones to carry out unreported strikes in Afghanistan.


Walsh, James Igoe. *The Effectiveness Of Drone Strikes In Counterinsurgency And*


Yeranian, Edward. *Egypt Claims Aerial Strikes Against Militants in Sinai.* 08 13,

