



Introduction

When humans first launched themselves into the air to attack their enemies, they used balloons. Later came planes and helicopters. The latest development in the area of airborne attacks takes the human operator out of the air. People may operate unmanned aerial vehicles (UAVs or drones) thousands of miles from the drone's location.^[1]

Drones were first used (like balloons) for surveillance. By 2001, the United States began arming drones with missiles and using them to strike targets during combat in Afghanistan. By mid-2010, over forty states and other entities possessed drones, many with the capability of launching missiles and dropping bombs.^[2]

Each new development in military weapons technology invites assessment of the relevant international law. This *Insight* surveys the international law applicable to the recent innovation of weaponizing drones.^[3]

The Rise of Attack Drones

Drones were probably invented during or right after the Second World War and were ready for use by the 1950s. During the Vietnam War, the United States fitted drones with cameras and deployed them for reconnaissance. The United States used drones for the same purpose during the Gulf War of 1990-1991 and the Balkans conflicts of the 1990s.

Reportedly in 2000 the United States was ready to employ drones for a dramatic new use: as a launch vehicle for missiles. Drones with missile launch capability were first used in early October 2001 in Afghanistan. On November 3, 2002, Central Intelligence Agency ("CIA") agents in Djibouti fired laser-guided Hellfire missiles from a drone at a passenger vehicle in Yemen, killing all passengers on board, including an American citizen.^[4]

During the invasion of Iraq that began in March 2003, the United States regularly used reconnaissance and attack drones. That use seems to have ended along with combat operations in 2009. The United States began using attack drones in Pakistan in 2004. The number of attacks jumped dramatically in 2008 and continued to climb in 2009. In 2010, the United States is expected to launch twice as many drone attacks in Pakistan as in 2009.^[5] The United States has been using combat drones in Somalia since at least 2006.^[6]

The United States is currently deploying two types of combat drones: the MQ-1 or Predator and the MQ-9 or Reaper. The Reaper is similar in design and function to the Predator but may carry heavier weaponry, including 500-pound bombs. The U.S. drone supply is rapidly increasing, and soon the U.S. arsenal will have more unmanned than manned aerial vehicles. Other states and non-state actors have

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drones or are quickly acquiring them, including Brazil, China, Georgia, Hezbollah, Iran, Israel, Pakistan, Russia, and Turkey. [7]

The next developments in drone technology will be improvements in precision, reliability, and automation. Current drone computer programs merely advise human operators on the decision to launch an attack. In future, drone computers may be programmed to launch attacks on the basis of pre-set parameters without the need for a human being to make the real time decision. [8]

Special Rules for Drones?

In determining what international law rules govern drone use, the most salient feature is not the fact that drones are unmanned. The fact drones carry no human operator may be the most important new technological breakthrough, but the key feature for international law purposes is the type of weaponry drones carry. Drones are currently configured to launch missiles and drop bombs. The missiles and bombs carried by drones are not the type of weaponry permitted in law enforcement efforts. Lawful resort to lethal force in law enforcement is too restricted by international human rights law to permit the use of such heavy firepower. The limitation on the arbitrary deprivation of life, in particular, regulates a state's resort to lethal force. [9]

During law enforcement operations, resort to lethal force is permissible when needed immediately to save human life. [10] Civilian police forces are acquiring drones, but to date they are using them for surveillance purposes. This is the only lawful use until drones are equipped with rifles, side arms, or other law enforcement-appropriate weaponry.

Whether law enforcement rules govern drone use depends on the situation and not necessarily who is operating the drone. Militaries are sometimes deployed for law enforcement purposes. For example, U.S. Marines were sent to Los Angeles during the 1992 riots, and in April 2009, U.S. Navy snipers shot and killed three Somali pirates who were holding Captain Richard Phillips hostage on a small boat off the coast of Somalia. The Navy officer in charge determined that Captain Richard's life was in "immediate" danger. [11] This sort of operation cannot be carried out with a missile or a bomb.

By contrast, missiles and bombs are lawful on battlefields because of the combatant's privilege to kill opposing forces under a lower necessity standard than prevails outside armed conflict zones. Also, within armed conflict zones, there is some tolerance for unintended loss of civilian lives. [12] The use of drones in armed conflict is as lawful as any other battlefield delivery system. Indeed, the drone's camera and other features may allow for more precise attacks than other launch methods.

The rules governing appropriate resort to missiles and bombs are well established in international law. More study is needed with respect to the psychological effects of distance killing without risk of losing an operator. The ease of killing with drones should be considered in developing the rules of engagement for such operations. [13] Thought must be given to leaders' willingness to resort to military force in situations of no risk to pilots. [14] It should be remembered that while drone operators may not be at risk, intelligence personnel and people who maintain drones on the ground may be in considerable danger. Additionally, anecdotal information indicates drone operators are seeing much more of the destruction that they cause thanks to the ability of drones to stay at an attack site and send back clear video footage. The toll on drone operators needs consideration as well.

Drones on the Battlefield

Knowing the international law definition of "armed conflict" is plainly essential to the lawful deployment of drones and other battlefield weapons and tactics. [15] On August 19, 2010, the International Law Association adopted a report on the definition of

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“armed conflict” that uses extensive state practice to clarify minimum factors that distinguish armed conflict from situations in which law enforcement rules prevail.^[16] The report was the result of a five-year study by a committee of eighteen experts from fifteen countries. It concludes:

The Committee . . . undertook extensive research into hundreds of violent situations since 1945 and identified significant state practice and *opinio juris* establishing that as a matter of customary international law a situation of armed conflict depends on the satisfaction of two essential minimum criteria, namely:

- a. the existence of organized armed groups
- b. engaged in fighting of some intensity.^[17]

Thus, armed conflicts are determined not by declarations but by organized armed fighting, intense enough to justify killing under a lower standard of necessity than is permitted to police.

Battlefield weapons may also be lawfully used *before* an armed conflict in the following situations: when initiating self-defense under Article 51 of the United Nations Charter;^[18] when authorized by the UN Security Council; when a government seeks to suppress internal armed conflict; and, perhaps, when a state is invited to assist a government in suppressing internal armed conflict.^[19]

The rules governing resort to force in self-defense are found in Article 51 of the UN Charter and a number of decisions by international courts and tribunals. The International Court of Justice made clear in the *Nicaragua* case that an attack giving rise to the right of self-defense must be a significant attack, as opposed to a “frontier incident” or low-level shipments of weapons to insurgents.^[20] The ICJ has also made clear in several cases that to exercise military force lawfully on the territory of another state, that other state must be responsible for a significant armed attack. The decision most relevant to drone use is *Congo v. Uganda*,^[21] in which the ICJ found unlawful Uganda’s use of force on the territory of Congo to halt years of cross-border incursions by armed groups based in Congo. In reaching this holding, the Court found that Congo was not legally responsible for the armed groups—it did not control them. Even Congo’s failure to take action against the groups did not justify Uganda’s use of force in Congo.

Additionally, in the *Nicaragua* and *Nuclear Weapons* decisions, the ICJ held that even where a state is responsible for a significant attack, there is no right to use force in self-defense if the use of force is not necessary to accomplish the purpose of defense and/or the purpose cannot be accomplished without a disproportionate cost in civilian lives and property. The ICJ found that “there is a ‘specific rule whereby self-defence would warrant only measures which are proportional to the armed attack and necessary to respond to it, a rule well established in customary international law.’ This dual condition applies equally to Article 51 of the Charter, whatever the means of force employed.”^[22]

In 2001, the United States took the position that Afghanistan’s Taliban government was legally responsible for al Qaeda so that under the law of self-defense, the United States had the right to use military force in Afghanistan following the 9/11 attacks. The use of force in self-defense in Afghanistan ended in 2002 when a *loya jurga* of prominent Afghans selected Hamid Karzai to be Afghanistan’s leader.^[23] Today, the United States and other international forces are in Afghanistan at President Karzai’s invitation in an attempt to repress an insurrection. The lawful use of force respecting the Afghan insurrection must be limited to Afghanistan and be within the bounds of Afghanistan’s request.

Some commentators have also argued in recent years that drones may be used in situations analogous to an asserted right for ships at sea to exercise “unit self-defense.”^[24] If a ship is attacked, all ships of the “unit” may counter-attack all ships

Amelia Porges, and David Kaye, UCLA School of Law. Djurdja Lazic serves as the managing editor.

in the attacking “unit.” Little or no authority exists to support applying the “unit self-defense” right outside of an armed conflict that includes hostilities at sea. Otherwise, a ship would presumably be allowed to defend itself much as an individual would when being attacked.

Another argument concerns the right of hot pursuit. Similar to the argument for unit self-defense, hot pursuit is a highly limited maritime right of law enforcement agents to pursue fleeing criminal suspects. The use of lethal force during such a pursuit is subject to peacetime law enforcement limitations and thus would preclude the types of weapons currently being used with drones.^[25] Because Somalia lacks effective government, the United States might have the right to carry out law enforcement operations there. Such operations would violate the principle of non-intervention but might be justifiable if in compliance with the law of counter-measures. The Security Council has authorized some law enforcement operations against pirates in Somalia.^[26]

Finally, arguments have been made for a right of pre-emptive self-defense to kill people who may engage in future violent action.^[27] However, as explained above, the right of self-defense in international law is based on response to an armed attack, not pre-empting future attacks.^[28] Nor does the law of self-defense encompass a right to initiate military action against an individual or small group, especially when the state where those persons are located is not legally responsible for their actions.

Conclusion

Commentators continue to debate whether drone technology represents the next revolution in military affairs. Regardless of the answer to that question, drones have not created a revolution in legal affairs. The current rules governing battlefield launch vehicles are adequate for regulating resort to drones. More research must be undertaken, however, to understand the psychological effects of deploying unmanned vehicles and the effects on drone operators of sustained, close visual contact with the aftermath of drone attacks.

About the Author:

Mary Ellen O’Connell, an ASIL member, is Robert and Marion Short Chair in Law and Research Professor of International Dispute Resolution—Kroc Institute, University of Notre Dame, Vice President of the American Society of International Law, and Chair of the Use of Force Committee of the International Law Association.

ENDNOTES

[1]For basic technical information on drones, see PETER W. SINGER, *WIRED FOR WAR: THE ROBOTICS REVOLUTION AND CONFLICT IN THE 21ST CENTURY* (2009).

[2]See Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions, *Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions, Philip Alston, Addendum, Study on Targeted Killings*, U.N. Doc. A/HRC/14/24/Add.6, at 9 (May 28, 2010) available at <http://www2.ohchr.org/english/bodies/hrcouncil/docs/14session/A.HRC.14.24.Add6.pdf> [hereinafter Report of the Special Rapporteur]; see also *infra* note 7 and accompanying text.

[3]The *Insight* does not directly consider targeted killing, a topic often discussed in connection with combat drones. See *id.*

[4]Doyle McManus, *A U.S. License to Kill, a New Policy Permits the C.I.A. to Assassinate Terrorists, and Officials Say a Yemen Hit Went Perfectly. Others Worry About Next Time*, L.A. TIMES, Jan. 11, 2003, at A1.

[5]See, e.g., *Charting the Data for US Airstrikes in Pakistan, 2004-2010*, LONG WAR J.,

<http://www.longwarjournal.org/pakistan-strikes.php> (last visited Oct. 15, 2010).

[6] See, e.g., *U.S. Missile Strike Hits Town in Somalia*, CBS NEWS (Mar. 3, 2008), <http://www.cbsnews.com/stories/2008/03/03/world/main3898799.shtml>.

[7] See Report of the Special Rapporteur, *supra* note 2; and *Iran Muscles into the UAV Battlefield*, Oct. 5, 2010, UPI.COM, http://www.upi.com/Business_News/Security-Industry/2010/10/05/Iran-muscles-into-the-UAV-battlefield/UPI-47421286303914.

[8] Peter W. Singer, *In the Loop? Armed Robots and the Future of War*, BROOKINGS (Jan. 28, 2009), http://www.brookings.edu/articles/2009/0128_robots_singer.aspx. Landmines are a type of weapon that currently operate automatically, detonating under certain conditions.

[9] See International Covenant on Civil and Political Rights art. 6, 999 U.N.T.S. 171.

[10] United Nations Basic Principles for the Use of Force and Firearms by Law Enforcement Officials, 8th UN Cong. On Prevention of Crime & Treatment of Offenders (Aug. 27– Sept. 7, 1990), *available at* <http://www.2ohchr.org/english/law/firearms.htm>. See also NILS MELZER, TARGETED KILLING IN INTERNATIONAL LAW 397-98 (2008).

[11] See *Hostage Captain Rescued; Navy Snipers Kill 3 Pirates*, CNN (Apr. 12, 2009), <http://www.cnn.com/2009/WORLD/africa/04/12/somalia.pirates>.

[12] For a recent discussion of battlefield rules, see INTERNATIONAL COMMITTEE OF THE RED CROSS, INTERPRETIVE GUIDANCE ON THE NOTION OF DIRECT PARTICIPATION IN HOSTILITIES UNDER INTERNATIONAL HUMANITARIAN LAW (May 2009), *available at* [http://www.icrc.org/Web/Eng/siteeng0.nsf/htmlall/p0990/\\$File/ICRC_002_0990.pdf](http://www.icrc.org/Web/Eng/siteeng0.nsf/htmlall/p0990/$File/ICRC_002_0990.pdf).

[13] Concerns have been raised by a U.S. Army investigation into a drone strike in Afghanistan in February 2010. Michael Gisick, *Report Faults Drone Crews in Attack that Killed Afghan Civilians*, STARS & STRIPES (May 29, 2010), *available at* <http://www.stripes.com/news/middle-east/report-faults-drone-crews-in-attack-that-killed-afghan-civilians-1.104815>.

[14] This issue was raised by audience members during a faculty colloquium at the Air War College, Maxwell Air Force Base, on September 24, 2010.

[15] State Department Legal Adviser Harold Koh has referred to the United States being engaged in an “armed conflict with al-Qaeda, the Taliban and associated forces.” Harold Hongju Koh, *The Obama Administration and International Law* (Mar. 25, 2010), <http://www.state.gov/s//releases/remarks/139119.htm>.

[16] See International Law Association, Use of Force Committee, FINAL REPORT ON THE MEANING OF ARMED CONFLICT IN INTERNATIONAL LAW (Aug. 2010), *available at* <http://www.ila-hq.org>.

[17] *Id.* at 32-33. (The author chairs this eighteen-member committee; Professor Judith Gardam is rapporteur.)

[18] Koh has also referred to the U.S.’s “inherent right of self-defense” in connection with the use of drones and other exercises of lethal force. Koh, *supra* note 15.

[19] Intervention by invitation is controversial because, while based on the principle of consent, it may clash with other norms, such as self-determination and non-intervention.

[20] Military and Paramilitary Activities In and Against Nicaragua (Nicar. v. U.S.), 1986 I.C.J. 14, 103, 119-20 (June 27) [hereinafter *Nicaragua*].

[21] Armed Activities on the Territory of the Congo (Congo v. Uganda) 2005 I.C.J. 301

(Dec. 19); see also Mary Ellen O'Connell, *Preserving the Peace: The Continuing Ban on War Between States*, 38 CAL. W. INT'L L.J. 41 (2007); and *Lawful Self-Defense to Terrorism*, 63 U. PITT. L. REV. 889, 889-904 (2002).

[22]Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, 245 ¶ 41 (Jul. 8); see also *Nicaragua*, *supra* note 20, ¶ 176.

[23]See, THE EMBASSY OF AFGHANISTAN, WASHINGTON D.C. PRESIDENT HAMID KARZAI BIOGRAPHY, <http://www.embassyofafghanistan.org/president.html>.

[24]See John E. Noyes, *Unit Self-Defense at Sea: Views from the United States and the International Court of Justice*, in THE EXERCISE OF JURISDICTION OVER VESSELS: NEW DEVELOPMENTS IN THE FIELDS OF POLLUTION, FISHERIES, CRIMES AT SEA AND TRAFFICKING OF WEAPONS OF MASS DESTRUCTION 185 (Erik Franckx & Philippe Gautier eds., forthcoming 2010).

[25]United Nations Convention on the Law of the Sea art. 111, Dec. 10, 1982, 1833 U.N.T.S. 3.

[26]See S.C. Res. 1851, U.N. Doc. S/RES/1851 (Dec. 16, 2008).

[27]This is one interpretation of Koh's reference to "self-defense" as a possible justification for killing persons who are members of violent groups but have not participated in violent conduct. Koh, *supra* note 15; see also Mary Ellen O'Connell, *The Choice of Law Against Terrorism*, J. NAT. SEC. L. (forthcoming 2010), available at <http://ssrn.com/abstract=1654049>.

[28]See Mary Ellen O'Connell, *The Myth of Pre-emptive Self-Defense*, ASIL Task Force on Terrorism (Aug. 2002), www.asil.org/taskforce/oconnell.pdf.