

# CHAPTER 8: DRONES AND THE PROTECTION OF HUMAN RIGHTS

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This chapter asks how drones are being used to protect people’s “life, liberty and security”—the first rights set forth in the Universal Declaration of Human Rights.<sup>1</sup> The United Nations is flying unarmed drones over war zones in the Democratic Republic of Congo (DRC) and Mali, and the Organization for Security and Cooperation in Europe (OSCE) is using drones to monitor the war in eastern Ukraine. Drones are not decisive in any of these conflicts; they are, however, new. Surveillance drones cannot, of course, stop wars in and of themselves. The information they gather can perhaps help bring peace sooner and, in so doing, protect human rights.<sup>\*</sup> As Hedley Bull wrote in

his 1977 classic *The Anarchical Society*, “justice, in any of its forms, is realisable only in a context of order.”<sup>2</sup> The OSCE, like the UN, is an intergovernmental organization, which is to say, it is comprised of national governments. As such, its strengths and limitations are distinct from those of non-governmental human rights advocacy organizations such as Amnesty International or Human Rights Watch. Such groups are interested in using drones,<sup>3</sup> though they have not done much yet, with the exception of disaster response (which is discussed in Chapter 6).<sup>4</sup>

\* This chapter does not address the use of armed drones by national governments, in particular the government of the United States. These are worthy questions, addressed by UN Special Rapporteur Ben Emmerson in a number of reports: Report of the Special Rapporteur on the Promotion and Protection of Human Rights and Fundamental Freedoms While Countering Terrorism, 22d Session of the Human Rights Council, U.N. Doc. A/HRC/22/52 (Mar. 1, 2013) (by Ben Emmerson); Report of the Special Rapporteur on the Promotion and Protection of Human Rights and Fundamental Freedoms While Countering Terrorism, 25th Session of the Human Rights Council, U.N. Doc. A/HRC/25/59 (Mar. 11, 2014) (by Ben Emmerson); as well as in a number of chapters in Peter Bergen and Daniel Rothenberg, eds., *Drone Wars: Transforming Conflict, Law, and Policy* (New York: Cambridge University Press, 2014). This chapter also elides discussion of the use of drones by military alliances such as NATO, even when, as in anti-piracy patrols in the Indian Ocean, such drone use is also arguably aimed at protecting the life, liberty and security of, in this example, merchant sailors. See, for instance, Craig Hoyle, “Dutch fly first ScanEagle mission off Somalia,” *Flightglobal*, August 31, 2012, <http://www.flightglobal.com/news/articles/dutch-fly-first-scanegale-mission-off-somalia-375990/>.

## DRONES AND A CHANGING UNITED NATIONS

The UN’s use of drones is part of a larger change in the scope and size of its peacekeeping missions. There are currently about 125,000 UN peacekeeping personnel—military, police, and civilian—deployed around the world in 16 missions.<sup>5</sup> Peacekeepers come from over 120 countries, and the peacekeeping budget is about \$8.2 billion. This is at least seven times greater, in terms of both money and personnel, than UN peacekeeping

*An American ScanEagle drone flying over the Pacific Ocean. Dutch peacekeepers are flying the same type of aircraft over Mali in the hopes of helping to bring an end to a long-running civil war with Tuareg militias. U.S. Navy photo/Joseph M. Buliavac.*



An American soldier launches an RQ-11 'Raven' drone on a training exercise in New Mexico. Dutch peacekeepers are using the same model on their deployment in Mali.

activities in 1999.<sup>6</sup> The expansion of UN police activity has been even more dramatic, increasing from about 1,500 deployed UN police officers twenty years ago to over 12,500 in 2015.<sup>7</sup> These larger numbers are needed because peacekeepers are no longer monitoring truces, as in the Golan Heights or Cyprus, but proactively intervening in wars. As a forthcoming report by a UN panel puts it, "In the absence of a peace to keep, peacekeepers are increasingly asked to manage conflict."<sup>8</sup> Herve Ladsous, the top UN peacekeeping official, has argued that unarmed drones are the "tool of choice" for tracking "the movements of armed militias to protect civilians."<sup>9</sup>

Unarmed drones are primarily a mechanism for gathering information. But as Sharon Wiharta and Anna Wiktorsson, researchers at a Swedish government institute, point out, "Information is useful for the decision-making of the mission leadership only if the raw data can be analysed quickly and accurately, and the intelligence is then swiftly distributed to those who need it across the different components of a peace operation."<sup>10</sup> This has been a problem for the UN, because, as Melanie Ramjoue (who at the time was a UN official in the DRC) has written, "States have historically been opposed to granting the UN any intelligence-collection powers, fearing that such a role could lead to violations by the UN of national sovereignties."<sup>11</sup>

The UN's remedy for this has been the establishment of strategic analysis units called Joint Mission Analysis Centres (JMAC) in which military, police and civilians work together in the field to analyze intelligence<sup>12</sup> and tactical analysis Joint Operations Centers (or JOC)<sup>13</sup>. In Mali, the UN has created a larger intelligence shop, the "All Sources Information Fusion Unit" (ASIFU) an, "unprecedented military intelligence and analysis capability for a UN mission."<sup>14</sup> The distinctions among these various units

can be confusing even to those within them\*"; the short version is that the UN is devoting more and more resources to intelligence and surveillance.

The UN has used dedicated surveillance aircraft for many decades, first employing them in the Sinai in 1956.<sup>15</sup> It also has used transport aircraft as dual-purpose reconnaissance platforms, in Lebanon, Yemen, and Central America.<sup>16</sup> But as Kevin Shelton-Smith, a UN aviation officer, has written, the "greatest change to UN aviation is likely to come in the form of unmanned aircraft."<sup>17</sup>

The first UN force to operate a drone was MINUSTAH, the peacekeeping force in Haiti, in 2007:

The small prototype was only in the mission for a short time, however. When the Brazilian battalion that brought it was rotated out, it was also withdrawn. Still, it proved useful for distributing leaflets. It did not have a significant observation capacity. Some soldiers suggested that a UAV could be used to draw fire from the bandits, thus exposing their positions. The UAV was not equipped for night observation.<sup>18</sup>

The significance of the UN's experience in Haiti, though, lies not in its use of UAVs but in its successful use of information to make civilians safer.<sup>†</sup> Helicopter-based aerial observation, both during the day and at night was helpful to the UN in its effort to defeat armed gangs. Ultimately, "intelligence-led operations constituted a pioneering approach that succeeded in Haiti."<sup>19</sup>

The only drones operated not by individual troop-contributing countries but by the UN mission itself are in the Eastern Democratic of the Congo, as part of MONUSCO, the UN peacekeeping mission in the Congo. MONUSCO is commanded by Lieutenant-General Carlos dos Santos Cruz, a Brazilian who previously had lead the UN mission in Haiti in 2007 during the successful anti-gang operations there. The UN's use of drones in the Congo is discussed at length in Chapter 10.

\* To wit: "The distinction between JMAC and JOC roles was often blurred. To start, the JOC was inappropriately named, since it acted primarily as a conduit for information not operational orders ('Joint Information Centre' or JIC would be a better name than JOC)" A. Walter Dorn, "Intelligence-Led Peacekeeping: The United Nations Stabilization Mission in Haiti (MINUSTAH), 2006–07," *Intelligence and National Security* 24, no. 6 (2009). According to Dorn, as of 2015, the UN has made little or no progress at UN headquarters on such joint intelligence efforts.

† In more recent years, the UN has worked with the International Organization of Migration, an independent intergovernmental agency, to use small drones to make maps of Port-Au-Prince, as part of ongoing efforts to rebuild after the 2010 earthquake. See "UNOSAT carries out first UAV mission for IOM in Haiti," UNITAR, February 17, 2012: <http://www.unitar.org/unosat-carries-out-first-uav-mission-iom-haiti>.

The UN used unmanned surveillance intermittently in Chad from 2006 to 2009. According to John Karlsrud, a former UN official, during a 2009 cross-border invasion from Darfur (of Chadian opposition forces), “the drone capability proved very useful to the mission, as UN forces could closely monitor the movement of the opposition forces and enhance the protection of refugees, IDPs, and humanitarian aid workers.”<sup>20</sup>

Dutch peacekeepers in Mali are operating both [ScanEagle](#) and Raven UAVs.<sup>21</sup> The ScanEagle, made by a unit of Boeing, is a mid-size drone that can stay in the air for as long as 20 hours, while the Raven is a smaller, hand-launched drone. The Dutch ScanEagles are based in Gao, while the Ravens are deployed with Dutch special forces soldiers. In May, 2015 Swedish peacekeepers in Timbuktu deployed Ornen\*, Svalan, and Korpen drones.<sup>22</sup>

It is difficult to say exactly what effect the Dutch and Swedish UAVs are having on the life, liberty and security of Malian citizens. Although a peace accord was signed in June, 2015, six UN peacekeepers (from Burkina Faso) were killed in an ambush in early July.<sup>23</sup>

A December 2014 UN report explains the technological shortfalls that UN peacekeepers now face:

especially in the areas of command and control, monitoring, reconnaissance and reporting, and information and communications technologies, peacekeeping operations simply do not currently possess anything approaching adequate numbers or types of technologies that militaries and police forces around the world accept not only as commonplace, but also as foundational to successful operations. This must change.<sup>24</sup>

The December report goes on to call for more “systematic use of commercial satellite imagery” and of drones: “unmanned aerial systems constitute an indispensable source of information and should not only remain part of the peacekeeper’s toolkit, but their use should also be immediately expanded.” The report points out that small, hand-launched drones would be particularly useful to UN forces in the field.

There is conflict within the UN between troop-contributing countries like Bangladesh and India, who are reluctant to put their soldiers in danger, and both member states and UN officials who are arguing for more interventionist policies.<sup>25</sup> As a forthcoming report of the High-Level Panel led by José Ramos Horta, a former President of Timor-Leste and a Nobel peace price laureate, put it, “Every peacekeeper—civilian, military, police—must do all they can when civilians are under imminent threat ... Command and control is too often undermined by national restrictions revealed in the field. This must not be tolerated.”<sup>26</sup>

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\* These are Swedish versions of the American Shadow, Wasp and Puma, respectively. The Shadow is similar to a ScanEagle. The Puma and Wasp are made by AeroVironment, the same firm that makes the Raven. The Puma is slightly bigger and the Wasp slightly smaller.

Horta’s report was referring to restrictions placed by troop-contributing countries on their soldiers. However, restrictions by host governments who claim the privileges of sovereignty without being able to deliver on the responsibilities of sovereignty also affect the UN.

The UN has tried to deploy drones to monitor the ongoing conflict in South Sudan, but has been blocked by the South Sudanese government.<sup>27</sup> Ladsous has said, “The use of such drones during the recent crisis in Jonglei [South Sudan] in order to map the movements of armed militias would have enhanced the capability of the Government of South Sudan and of UNMISS [UN Mission in South Sudan] to protect civilians by preventing violence and displacements.”<sup>28</sup> Ladsous has also advocated for the UN to use drones in the Central African Republic.<sup>29</sup>

However, as Anthony Blinken, the U.S. Deputy Secretary of State, recently said, “At the end of the day, however, the kinds of conflicts we are talking about—the kinds of challenges we are asking our peacekeepers to confront—will not be resolved simply with more helicopters or more troops. They have political causes. They require political solutions.”<sup>30</sup>

## THE OSCE IN THE UKRAINE

Political solutions can be difficult to reach. In eastern Ukraine, Russian-backed separatists have been fighting with the Ukrainian government since the spring of 2014, despite a September, 2014 ceasefire signed in Minsk. The Organization for Security and Cooperation in Europe (OSCE), an intergovernmental organization with 57 participating states has been charged with monitoring the ceasefire.<sup>31</sup> The OSCE Special Monitoring Mission to Ukraine (SMM) was first deployed before the ceasefire, in March 2014, shortly after the beginning of the conflict in Eastern Ukraine.<sup>32</sup> According to the OSCE, “its main tasks are to observe and report in an impartial and objective way on the situation in Ukraine; and to facilitate dialogue among all parties to the crisis.”<sup>33</sup> The OSCE has 756 international staff in the Ukraine charged with monitoring both the ceasefire and the humanitarian situation more broadly. It also has a fleet of four UAVs under its authority. (One crashed in February 2015.)<sup>34</sup>

The Schiebel S-100, a medium-sized unmanned helicopter, costs about \$400,000 per unit.<sup>35</sup> The OSCE hasn’t bought them outright, and is instead relying on a contract with Schiebel, an Austrian company, who also operate the drones. The S-100 can fly 50-80km from its base station and can carry about a 110 pound payload for as long as 6 hours, flying at a cruise speed of 60 miles per hour.<sup>36</sup> The S-100s first flew in the Ukraine on October 23, 2014.<sup>37</sup> Unlike the UN, who, since they use their drones to support troops on the ground, guard the information the UAVs gather quite closely, the OSCE observers issue near-daily reports of what the drones have seen, along with reports from observers on the ground. They even sometimes release imagery.<sup>38</sup>

The OSCE’s drones are frequently jammed and shot at by combatant parties.<sup>39</sup> Weather, however, is a bigger problem



Pro-Russian separatists patrol in the eastern Ukrainian city of Makeyevka in February, 2015. The OSCE monitoring mission can see such tanks with its drone.

than jamming.<sup>40</sup> Perusing the OSCE's reports, one can see the virtue of publicly accessible, verifiable information.

On June 3, 2015, after fighting started early in the morning around the town of Marinka (23km south-west of Donetsk's center), the OSCE drone, "observed intense shelling targeting an intersection of the H15 highway 3.5km south-west of Marinka. The UAV spotted four 2S3 Akatsiya 152mm self-propelled howitzers 9km south-west of the town at 15:30hrs."<sup>41</sup> A few days later, on June 6<sup>th</sup>, monitors couldn't go to the village of Shyrokyne, because it was unsafe. "However, an SMM UAV on 6 June spotted two mortar positions in immediate proximity to civilian houses in 'DPR' [Donestsk People's Republic]-controlled areas of the village and the following day a burning building, also in the village itself."<sup>42</sup> The next day, "the UAV spotted 35 military trucks and 25 armoured personnel carriers. Also, of note was a concentration around "DPR"-controlled Oktyabr (85km south of Donetsk), namely, three artillery pieces and two MBTs."<sup>43</sup>

A week later, the observers note that "despite claims that the withdrawal of heavy weapons was complete", ground observers saw thirteen tanks and four armored vehicles, while an OSCE drone saw "ten MBTs [Main Battle Tanks] (unknown type) and 27 armoured vehicles in Komsomolske ('DPR'-controlled, 43km south of Donetsk), as well as four self-propelled artillery pieces (likely 122mm 2S1 Gvozdika) approximately 1km west-south-west of Vasylivka ('DPR'-controlled, 50km south-south-east of Donetsk)."<sup>44</sup>

Another report reads, "In the early evening hours of 21 June [2015], the SMM unmanned aerial vehicle (UAV) spotted burning houses in Shyrokyne."<sup>45</sup> These reports continue along similar lines. Reading them gives some texture to the question of how observation drones can protect civilians. The drones do not stop the houses in Shyrokyne from burning. But surely it does some good to have independent, verifiable, and publicly accessible information from the midst of a war zone? As Paul Fritch, an American diplomat who was previously the OSCE's

chief of staff, puts it, "[The OSCE observer mission] has done difficult, dangerous work, often in harsh conditions, and has gradually established itself as a credible stabilizing force. In a conflict where propaganda and disinformation have flown more freely than artillery shells, the SMM's sober, factual reporting has been an invaluable asset to would-be peacemakers."<sup>46</sup> The UAVs have contributed to this effort. As Fritch notes, "skeptics will point to the fact that for all of this activity, the OSCE has not ended the violence, prevented Russia's annexation of Crimea, or slowed the advance of Russian-backed separatists in Donbas."

## NGOS AND UAVS

The OSCE's failure to end the violence in Ukraine raises the question of what the virtue of information without political will is. As Fritch writes, there is virtue, but that virtue is limited.

David Whetham of King's College London posits that the information drones gather can have value as a deterrent:

Unarmed, unmanned aerial vehicles (UAVs) with surveillance capabilities – 'flying cameras' – could be deployed under a relatively uncontroversial United Nations Security Council Resolution (UNSCR) in a matter of days or even hours to nearly anywhere on the planet to stand witness and record events on the ground as they happen. If this could be done in a suitably public way, thus deploying them with as much fanfare as possible to ensure that belligerents are aware of what is going to happen, the fear of being observed may be enough to modify behaviour.<sup>47</sup>

Perhaps. However, such hopes for deterrence seem more aspirational than actual. As Daniel Gilman of the UN's Office for the Coordination of Humanitarian Affairs says, "I'm not convinced so much about the deterrent effect of drones. Just because I think people are assholes."<sup>48</sup> A project called the "Satellite Sentinel Project," which was funded by actor George Clooney, attracted a lot of attention in 2010 and 2011 for using high-resolution commercial satellite imagery to search for evidence of war crimes.<sup>49</sup> However, as some of the participants in the effort later wrote in the *Georgetown Journal of International Affairs*, in a remarkably self-critical post-mortem, "The experience of the Satellite Sentinel Project (SSP) suggests that attempting to enhance the situational awareness of policymakers and the public does not appear by itself, at least in the case of Sudan, to directly affect whether, and to what degree, governments respond to mass atrocities as they occur."<sup>50</sup>

Because of the United States' use of armed drones, many human-rights advocates are wary of drones entirely. As Gilman says, "Right now there is a civil war [in the human rights and humanitarian communities] because

you have activists who see them as a tool of surveillance, and another group who just see them as a tool.”<sup>51</sup> Gilman points out that at political protests the number of protesters is often a matter of controversy. If multiple independent teams can use UAVs to come up with verifiable population counts, he says, it might be useful.

But, Gilman says, the most contested space is “the real human rights stuff ... How do you give people the freedom to document abuses without creating broader risks?” he asks. Christoph Koettl of Amnesty International says that he sees two major goals for the human rights community in using UAVs. The first is indeed documentation of abuses—evidence gathering. The second is advocacy and public campaigning, which he says is further along.

With regard to documentation of abuses, he says the “feeling at Amnesty is that we wouldn’t break the law,” which could make drone use to document abuses a non-starter if governments seeking to hide human rights violations simply decree that drones are prohibited. In many areas around the world, from Syria to the Russian/Ukrainian border, human rights workers are already using satellite imagery, which can be useful. But the greater detail of drone imagery would be useful, Koettl says, in order to be able to see insignia of specific military units and establish command responsibility.

“Are we spying?” he asks, rhetorically. “Not really,” he answers his own question: “we just want to document human rights violations from both sides,” in any given conflict. He speculates that in the short run, the most common type of drone imagery used by human-rights advocates might be that provided by third parties, as sometimes happens with, say, mobile phone video. It “could just fall into our hands,” he says. Even in this case, however, Koettl is reticent about publishing personally-identifiable information. “We might blur out the faces even of perpetrators,” he says, while holding on to the unblurred images for possible trial at the International Criminal Court or some other venue.

But even if Koettl doesn’t think of drone imagery as spying, others might. Part of the task of human rights activists who want to put drones to use is a shaking off of the stigma that unmanned aircraft acquired following American drone strikes in Pakistan, Yemen, and elsewhere. With the proliferation of small consumer drones, that process is well underway. But even as the process of assimilation continues, the fact remains that drones are capable of gathering information unilaterally. Norms are presently forming about their use.

A 2013 paper by Rahul Chandran and Andrew Thow argues that, “humanitarians must adapt to the idea of information as a basic need in humanitarian response.”<sup>53</sup> Taking this claim seriously requires, they say, a re-ordering of



The OSCE flies Schiebel S-100 drones in its monitoring mission in the Ukraine. A group called MOAS is using the same drone to search for boats carrying refugees in the Mediterranean.

priorities. The paradox in their argument is the claim that “information creates most value when it can be shared widely and freely.”<sup>54</sup> There is much truth in this statement.

However, their call for “standards for the ethical use of new forms of data, including protocols for protecting privacy and guaranteeing informants’ safety,” has not, and probably cannot, be entirely satisfactorily addressed.<sup>55</sup> It isn’t possible to come up with standards in a way that square the circle. As Gilman says, figuring out how to construe privacy in a humanitarian crisis—whether violent conflict or natural disaster—is not straightforward. “Consent isn’t a very useful thing in humanitarian crisis because the power dynamics are too skewed....the responsibility is much more on people collecting the information to make sure it is done responsibly. There needs to be an assessment of what the actual risks are to people.”

These considerations hold equally, in principle, for satellite imagery and drone imagery. Josh Lyons works as a satellite and drone imagery analyst for Human Rights Watch. “My primary focus within satellite work is as an extreme guardian of quality control, anticipating every single conceivable mistake that we might make in order to avoid catastrophic failure,” he says. And such mistakes of interpretation are easy to make. The higher resolution of drone imagery in principle might help, he says, as might the fact that drones are relatively cheap and can fly at specific times, instead of satellites that orbit in relatively difficult-to-change trajectories.

“From a human-rights perspective, a large number of [locations in conflict zones] change hands frequently. In order to ascribe any legal responsibility, or attribution for one of these different armed factions for particular potential violations, indiscriminate shelling, destruction of civilian property, you have to have a much finer time series in order to break down what happened on what date and what

week,” he says. But even such more detailed aerial imagery is limited. “Photo-interpretation-based analysis of imagery for human-rights applications is fundamentally hamstrung... without having ground information to cross-validate, without access to people on the ground to overcome the fundamental limits of visual interpretation of imagery alone,” Lyons says. The potential of aerial imagery to corroborate eyewitness evidence—whether from a satellite, manned aircraft, or drone—is profound, he adds.

Lyons remembers a story from 2013 in Baga, a town in Nigeria. “The testimony we had was the Nigerian army had come in a light engagement with Boko Haram. Boko Haram left and Nigerian forces there decided to take it out on the local population. They burned down 2,500 homes. The testimony we had was that they [the Nigerian military] started the fires.” Lyons had high-resolution satellite imagery, from about 3 weeks before the fires in question, and also from a week after. But “attribution for that damage is still slippery,” he says. Using another satellite called MODIS, which takes thermal images at low resolution but more frequently, he found “a time stamp for the fires starting in the evening, lasting through the night, continuing through sometime around noon the next day. For these fires to be detected by this very low resolution satellite these fires have to be really big. It was absolutely conclusive and compelling—it matched the testimony flawlessly.”

The problems encountered by the Satellite Sentinel Project in Sudan reiterate Lyons’ point: “The most important issue was the inherent limitations on analyzing remote sensing data without reliable ground confirmation. Satellites could offer a rare glimpse into the highly non-permissive Sudan-South Sudan border areas. However, imagery still represents only a single source of data about alleged events within a dynamic conflict zone. Though the [Sentinel] team strove to draw definitive conclusions about the conflict, remote sensing analysis alone could not result in conclusive knowledge of a situation, only interpretations,” they wrote in their self-

criticism.<sup>56</sup> As in examples from wildlife conservation, the higher resolution of drone imagery can be used to aid in the interpretation of satellite images that cover a broader area—the two can complement one another.

Because of the coverage of satellite imagery, it will continue to be a valuable tool. However, there is one major problem with satellite imagery: clouds. “There are still parts of the world, parts of Congo and Indonesia, where there are some satellites that have never detected a cloud-free pixel in certain areas,” says Lyons. He thinks drones could be useful in such cases. He remembers attacks in Burma a few years ago: “[The] first round of arson attacks had occurred in June, and it was probably October before there was an image acquired... it was a major, major anti-Rohinga attack, had destroyed thousands of buildings. That place was under cloud for 4 months. It had days when it was sunny but satellites are not acquiring every day.” Bangui, the capital of the Central African Republic, went into cloud for 2.5 months—“Not a single cloud-free acquisition,” he says, except for radar. Radar imagery, however, he says, is very difficult to analyze. So despite the collapsing price of satellite imagery—a non-emergency tasking, which usually gets an image within a week, costs him €350 for a 25 square km image—drones can complement satellite imagery because of their higher resolution, ability to fly below clouds, and greater flexibility in timing.

Human-rights organizations like Amnesty International or Human Rights Watch have a fraction of the resources of the United Nations; their power consists almost entirely of moral suasion. If one believes that such work is, in general, worthwhile, then it seems there is a niche in which drones can help document human rights violations, and so help curb them. But, as in documentation of human rights violations by other means, including eyewitness testimony, knowing about something is but the first step in doing something about it. §

## ENDNOTES

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