Eyes in the sky for peacekeeping: the emergence of UAVs in UN operations

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When the United Nations announced in 2013 that it had deployed Unmanned Aerial Vehicles (UAVs) in Democratic Republic of Congo (DRC), it marked a new era for UN peacekeeping missions. This was not the first time that UAVs had been deployed for a peacekeeping mission but the first time that one operated under the direct control of a UN mission and not simply operated by a contributing member state.

Because UAVs were closely associated with the controversial targeted killing programs in Afghanistan, Pakistan and Yemen, UN headquarters sought to avoid any confusion with the purpose of the new tools. UN headquarters called them Unarmed Unmanned Aerial Vehicles (UUAVs) and deliberately avoided the term drones. While designed for observation only, they were deployed into the UN's Congo mission, which was the most robust peace operation at the time. The nature of peacekeeping had changed and the UN needed to meet the new challenges. In DRC, the Security Council provided the mission with a mandate for 'offensive operations' to 'neutralize' illegal armed groups, including those that terrorized the local population.

The nature of modern UN peacekeeping missions required more robust peacekeeping forces. Today peacekeepers continue to face a mixture of insurgents, rebel groups, criminal networks and terrorists in various missions. The introduction of UAVs into these missions marked a sea change in UN policy and showed that the world organization could conduct technologically-enabled intelligence gathering and analysis. More generally, the United Nations finally seemed willing to accept the importance of intelligence, a controversial word that gradually became accepted both at UN headquarters and in the field. The evolving nature of peacekeeping demanded intelligence gathered by sophisticated tools.

The Congo and the first UN drone deployment

The United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO) commenced with a small observer force in 1999. It helped bring an end to the Congolese wars that broke out after the 1994 Rwandan genocide and that involved many neighboring states on both sides of the fighting, which made the wars a kind of African continental war fought on the territory of Congo.[3] The UN mission evolved considerably from its first task of ceasefire monitoring and is now undertaking peace enforcement against local militias and rebel groups.

The UN decided to pursue this more offensive course of action after the M23 rebels captured and temporarily occupied the city of Goma in the resource-rich eastern part of DRC in November 2012, despite having a peacekeeping force in the city.[4] After this humiliation, the UN Security Council decided to broaden the scope and capacity of the UN mission.[5] In March 2016, it authorized the mission strength as 22,016 uniformed personnel consisting of:

- 19,815 military personnel;
- 760 military observers;
- 391 police;
- 1,050 personnel in formed police units.[6]

MONUSCO's mandate includes the 'protection of civilians, humanitarian personnel and human rights defenders under imminent threat of physical violence and to support the Government of the DRC in its stabilization and peace consolidation efforts.'[7] This can be a daunting task for a force of 22,000 uniformed personnel in any country, let alone one of the size of the DRC which is almost the size of Western Europe.

M'Hand Ladjouzi, MONUSCO's head of office in Bunia, encapsulated the paradox well:

> The main challenge of peacekeepers in DRC is that the population sees well-trained armies, well-equipped armies with all the [UN] resources they can imagine, and they can't see why the problem [of illegal armed groups] is still there. Then you go to side of the peacekeepers and see that the zone to be covered by one Bangladeshi battalion is larger than the whole of Bangladesh. So you can imagine the number of miracles you have to perform in order to be present everywhere.[8]

Despite the challenges, the UN has achieved some significant successes. After the mission used its attack helicopters and long-range artillery in 2013 against the largest rebel group, the M23, the group announced its surrender.[9] After similar actions in 2016 against the Democratic Forces for the Liberation of Rwanda (FDLR), there are rumours that it may be on the verge of imploding, especially after a series of arrests.[10] However, more than a score of other rebel groups operate in the 'Wild East' of the country. Overall, the country is still in tumult, especially with the uncertainty over President Joseph Kabila's intention to extend his term of office. Kabila would like to downsize the UN mission in part because of its pressure for democracy. But by continuing the mission's mandate and expanding its tools, the United Nations is showing that it is not backing down from the challenges in the DRC.

Since December 2013, in the DRC, the UN has flown its first UAVs, changing peacekeeping forever. The UN contracted SELEX ES to fly five Falco drones for a cost of EUR 10 million per year over a three year period with an option to extend for a further two years.[11] With the United Nations responsible for tasking drone missions, the surveillance drones provided a significant increase in situational and operational awareness. The initial cameras were of poor resolution and the mission had to rely on helicopters with hand-held, high-zoom cameras; but with the introduction of the MX10 camera, the UAV observation capability increased substantially. On 26 April 2014, one UAV provided real-time imagery of the heat signatures of 10–15 people on the DRC/Rwandan border at night to help identify smuggling.[12] Prior to the UAVs, UN flying was mostly confined to daytime operations because of the inability to conduct search-and-rescue at night in case of downed manned aircraft. Now the unmanned vehicles, with infrared cameras, extended the UN's watch into the night, when much smuggling and many atrocities occur. Peacekeeping was no longer merely a daytime job.[13]

On 7 February 2014, a UN UAV, on short notice, provided imagery of a potential skirmish between members of the Alliance of Patriots for a Free and Sovereign Congo militia group and the Armed Forces of the DRC.[14] Then in May, MONUSCO was able to save fourteen people from a sinking boat on Lake Kivu because a UAV system (UAS), during a training exercise, spotted the sinking boat and guided peacekeepers aboard zodiacs to the survivors.[15] Many other instances also showed the usefulness of UAV technology for UN operations. UN Under-Secretary-General for Peacekeeping Operations Hervé Ladsous affirmed from experience that drones are effective for the protection of civilians.[16]

There had been earlier UAV deployments in the region by UN member states, though not under UN command and control. To help create stability prior to and during the Congolese election of 2006, Belgium deployed UAVs to the Congo as part of European Union Force. The drone revealed government

efforts to import tanks by rail in violation of Security Council resolutions. As well, the drones spotted illegal small arms imports in dugout canoes plying the Congo River. Especially during fighting at the Vice President's residence, where the UN mission head (William Swing) was stranded inside the compound, the UAVs proved valuable in quickly deploying peacekeepers to stop the fighting. Unfortunately, in October 2006, one of the Belgian surveillance drones crashed near the Kinshasa airport, killing one and injuring two.[17] The remote pilot had decided to abort the flight just before take-off, but the drone had just achieved take-off speed and continued on a disastrous journey. The United Nations also suffered UAV crashes. In 2014, one of the five UN UAVs crashed in the Nyiragongo territory of DRC. UN officials visited the crash site and promised to compensation for the loss of crop; but, according to Foreign Policy magazine, the payment did not come and the field overgrew as the crashed drone lay in pieces before being cleaned up eight months after the crash.[18] UAV technology at the moment has a higher crash probability than manned aircraft because of issues stemming from operator failure, inadequate maintenance and complications arising from severe weather.

The technical issues are not the only challenges the UN faces with UAVs. Other issues stem from the UN's organizational structure and the concerns of others in their area of operations.

Politics and intelligence issues

A few national leaders and their ambassadors in New York expressed suspicion that the United Nations would use UAVs to gather intelligence on their countries. But such suspicions are nothing new. The prospect of US Predator drones having the ability to read a licence plate from two miles away can be daunting for those who are concerned over the integrity of their sovereignty. UAVs have the ability to greatly increase real-time operational situational awareness, as well as better command and control. One of the first concerns over the UAV deployment was raised by Olivier Nduhungirehe, a Rwandan diplomat at the United Nations. Nduhungirehe stated that 'Africa must not become a laboratory for intelligence devices from overseas … We don't know whether these drones are going to be used to gather intelligence from Kigali, Kampala, Bujumbura or the entire region.'[19] Rwanda's position at the United Nations quickly reversed after Rwandan President Paul Kagame finally supported the UAV deployment decision, while still claiming that his government was not aiding the M23 rebels.[20] Rwanda was long suspected of inciting and supplying the M23 and similar rebel groups in the region.

Concerns do not end with the Rwandan government; even some Troop Contributing Countries (TCCs) have expressed concerns that UAV footage could potentially watch their peacekeeping troops, potentially providing incriminating evidence and eroding the principles of the mission.[21] The humanitarian community also had concerns about UAVs in peacekeeping, even though there have been numerous deployments of UAVs (especially mini-drones) by humanitarian actors.[22] The most frequent assertion is that military surveillance aircraft, drones included, should not conduct information gathering for humanitarian objectives.[23] According to the principle of 'humanitarian space', there should be a clear separation of physical aircraft by purpose, as mixing humanitarian and military/intelligence flights would be a 'clear compromise of neutrality', especially in missions where the UN is carrying out combat operations.[24] There is also the unresolved question as to how long can data from the UAV can be stored.[25]

And there is a larger problem. The United Nations has rarely been able to fully integrate intelligence gathering and analysis into its field mission; sovereignty of the host state, complaints of conflicting parties, on top of humanitarian space concerns figured into the argument against doing so. But operational necessity has forced the issue with the advent of more complex peace enforcement missions. Chris Johnson, a US Army Officer who was deputy head of intelligence for MONUSO, was quoted as saying that 'Intelligence used to be kind of a dirty word in the UN' and that it has been underfunded.[26] But this is now changing, particularly with the newer mission in Mali.[27]

The Mali mission, faced with attacks on its forces and a variety of terrorist groups (including al Qaeda in the Islamic Maghreb or AQIM and its splinter groups), broke new ground by deploying over 300 intelligence personnel, including a Special Forces company from The Netherlands in 2014. UAVs were brought in by The Netherlands and Sweden, later Germany. Traditionally, UN member states did not wish

to lend intelligence personnel to the UN missions, as it would decrease their own capacity for non-UN missions; but post-Afghanistan, there were many available personnel as well as UAVs. The Mali mission had mixed success in deploying a NATO-style All Sources Information Fusion Unit (ASIFU) in a peace-keeping operation. And the already existing intelligence unit at mission headquarters, called the Joint Mission Analysis Centre (JMAC), was staffed by far fewer people than the ASIFU, leading to resentment.

In the DRC mission, the JMAC consisted of only 15 people and the UAS cell only a half-dozen, in contrast to the several hundred that would be staffed for a similar US operation.[28] The argument remains valid that the UN does not have enough staff to analyze the imagery that is being taken, including by UAVs.[29] Nor can five UAVs be tasked with effectively surveying such a large country.[30] But the allocation of limited personnel and resources is not a new concern for the United Nations, which is constantly under-funded and under-resourced for the enormous mandates that are given to its field operations. It deploys more uniformed personnel to the field (105,000) than any other entity, including the US government.

The UN Department of Peacekeeping Operations (DPKO) and its Department for Field Support (DFS) in New York have been reliant on contributing states and, in the case of the UAVs in the DRC, the United Nations purchases services from private companies.[31] This outsourcing has its own issues and problems. Although the 2013 DRC contract went well, there were initial failures with earlier efforts, especially to allocate the necessary funds.[32] The first two attempts to have UAVs in the mission, 2006–2007 and 2008–2009, failed for reasons of mission reluctance and a slow procurement process. There is also the legal issue of contracted UAV operators participating in a conflict zone. Such operators may be deemed to be directly participating in military operations and, therefore, the United Nations had to take some responsibility for their actions and well-being – physical and mental, including by providing them with armed protection.[33]

So, in the future, the UN could foster relationships with one or more member states to contribute UAV equipment and operators. Finding such a Technology-Contributing Country (TechCC) to provide the equipment, training and personnel to maintain the UAVs would decrease the technology gap that exists in UN peacekeeping.[34]

Such contributions would need to be carefully coordinated between the TechCC and the UN mission. An example in the Chad mission shows how such challenges figured prominently in the past. One contingent, when re-hatted from the European Union Force in the conflict area, maintained a UAS that proved quite useful to monitor rebel incursions and fighting in Spring 2009, when the UN sought to protect civilian sites. On one flight, however, one of the UAVs lost contact with its home station. It was programmed to fly in a fixed pattern until the signal was regained; but, as the fuel was running low, the UAV followed its deeper programming and began to fly home automatically. Unfortunately, the location of the home station had not been entered so the UAV flew north towards 'home' in Europe! When the UAV crashed in Goz Beida, Chad, the UN had to issue sincere apologies to the locals.

Going forward

A year after the UN deployed its first UAV as a mission asset (2013), the Expert Panel on Technology and Innovation in Peacekeeping concluded that the UN should expand its medium-altitude, long-endurance UAV operations to other missions.[35] A few months before the report's release the UN announced that it would deploy UAVs to Mali, but that it had shelved plans for deploying UAVs in the Ivory Coast.[36] At first the Mali decision was delayed because of concerns that UN UAVs in Mali might be confused with the UAVs that the USA and France were flying on counter-terrorism missions in Mali and across the broader Sahel region.[37]

Germany is currently in charge of the military intelligence unit in Mali, having taken over from The Netherlands. The German contingent successfully conducted the first flight of an Israeli-made, and leased, Heron UAV for its inaugural mission in Mali.[38] While this UAV has a longer range than the ScanEagle drones operated previously by The Netherlands, it is still not enough to cover the vast space of northern Mali. Still the UAVs are a great contribution that can add to the surveillance by the UN's

Swedish intelligence unit, operating out of Timbuktu, that has smaller tactical surveillance UAVs (AAI/ Textron Systems' Shadow 200).[39]

The Expert Panel also conveyed that the UN should deploy smaller UAVs for operational- and tactical-level purposes.[40] In addition to the DRC and Mali, the UN has deployed UAVs in the Central African Republic, in particular the Israeli-made HoverMast UAV, which is a combination of a drone and an aerostat,[41] with the UAV tethered to a truck. The system immediately proved extremely useful to aid security during the visit by Pope Francis in November 2015.

In a few short years, the United Nations has adopted UAV technology for several of its missions and is experimenting with smaller UAVs for tactical purposes. There have also been recommendations that further UAV deployments should be made to bolster UN missions in Darfur and South Sudan.[42] It seems that the UN is finally on the road towards a technology-enabled future for its peacekeeping missions, overcoming earlier resistance to both intelligence-gathering and technology. But much work still needs to be done to adequately incorporate technology-enabled intelligence into the peace missions of the world organization.

Disclosure statement

Notes on contributors

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Endnotes

3. Kakaes, "Chapter 10: The UN's Drones and Congo's War," 87.
4. BBC News, "Goma: M23 rebels capture DR Congo city."
5. United Nations Security Council, Resolution 2098 (2013).
6. MONUSCO, "MONUSCO Facts and Figures."
7. MONUSCO, "About."
8. Kakaes, "Chapter 10: The UN's Drones and Congo's War," 91.
9. France24, "M23 rebels announce 'end of rebellion' in DR Congo."
10. Nigeria Today, "Arrest of 3 top FDLR commanders could mark major divisions."
11. Hoyle, "UN picks Falco UAS for DRC peacekeeping mission."
12. United Nations Organization Stabilization Mission in Democratic Republic of Congo, "Interoffice Memorandum," 3.
13. Dorn, "Smart Peacekeeping," 9.
14. Ibid., 3.
15. MONUSCO, "MONUSCO Peacekeepers rescue 14 people from sinking boat on Lake Kivu."
16. Tafirenyika, "Drones are effective in protecting civilians."
17. Isango, "Drone Crashin in Congo Kills 1, Injures 2."
18. O'Grady, "How a U.N. Drone Crashed in Congo and Was Promptly Forgotten."
19. Lynch, "U.N. wants to use drones for peacekeeping missions."
20. Kagire, "Rwanda president: No issue with UN drones in Congo."
21. Karlsrud and Rosen, "Lifting the fog of war?" 51.
22. iRevolutions, "Humanitarians in the Sky."
23. Relief Web, "Joint INGO Position on Humanitarian Use of UAVs."
24. Ibid.
25. Karlsrud and Rosen, "Lifting the fog of war?" 57.
26. See note 1 above.
27. Rietjens and Dorn, "The Evolution of Peacekeeping Intelligence."
28. Kakaes, "Chapter 10: The UN's Drones and Congo's War," 90.
29. Kakaes, "Chapter 10: The UN's Drones and Congo's War," 93.
30. At one point, several of the UN's UAVs were transported from Goma in the East to the capital, Kinshasa, in the West to help with observation over the capital, during a particularly tense election.
31. Karlsrud and Rosén, "In the Eye of the Beholder?" 6.
32. Ibid.
33. Apuuli, "The Use of Unmanned Aerial Vehicles (Drones) in United Nations Peacekeeping."
34. Dorn, "Smart Peacekeeping: Toward Tech-Enabled UN Operations," 21. The notion of the 'Technology Contributing Country' was first introduced to the UN's Expert Panel on Technology and Innovation in Peacekeeping by one of the authors (W. Dorn) while he served on the panel.
35. Expert Panel on Technology and Innovation in UN Peacekeeping, "Performance Peacekeeping: Final Report," 54.
36. Nichols, "U.N. seeks surveillance drones for Mali, shelves plans for Ivory Coast."
37. Personal conversations by one of the authors with DPKO officials at UN Headquarters who were involved with the UAV programme. For information on French UAVs, see France, Ministry of Defense, "Reaper Drones In Sahel Now Part of ISR Assets of French Armed Forces."
38. Ahronheim, "Israel's Heron drone completes first successful mission in Mali."
39. Aviation Week, "Unmanned Peacekeepers in Africa."
40. See note 33 above.
41. Eshel, "Unmanned Peacekeepers over Africa."
42. Aviation Week, "Unmanned Peacekeepers in Africa."

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